DESTINATION 2050

2050

A CONCEPTS BANK AND TOOLKIT FOR FUTURE-MAKERS

PETER ELLYARD

Humanity now recognises that it lives on a shared planetary home with a shared future and it is interconnected by ever-increasing levels of interdependence. It is journeying towards a single integrated interdependent global society driven by the collective forces of globalisation, tribalisation and technological interconnectivity. This society will be fully developed by the year 2050, which is emerging both as a year of aspirational focus for, and a year of judgement of, collective human endeavour.

Peter Ellyard describes this emerging interdependent sustainable society—one based on a 21st century paradigm called *planetism*—that is shaping global markets, future jobs and global ethics, and how humanity is reinventing itself in stages to enable itself to thrive in this society. Over 70% of the products, services and technologies that will be present in 2050 have yet to be invented and Ellyard shows us how we can predict and then build these innovations and prosper by doing so. This integrated interdependent world promises collective prosperity but also collective vulnerability to the wrecking actions of those who are excluded, or who choose to exclude themselves, from participating in this collective journey. Peter Ellyard provides us with concepts banks and mental toolkits that are practical, that can be practised by everyone, and that will enable humanity to thrive in this 21st century society, the century of the planet.

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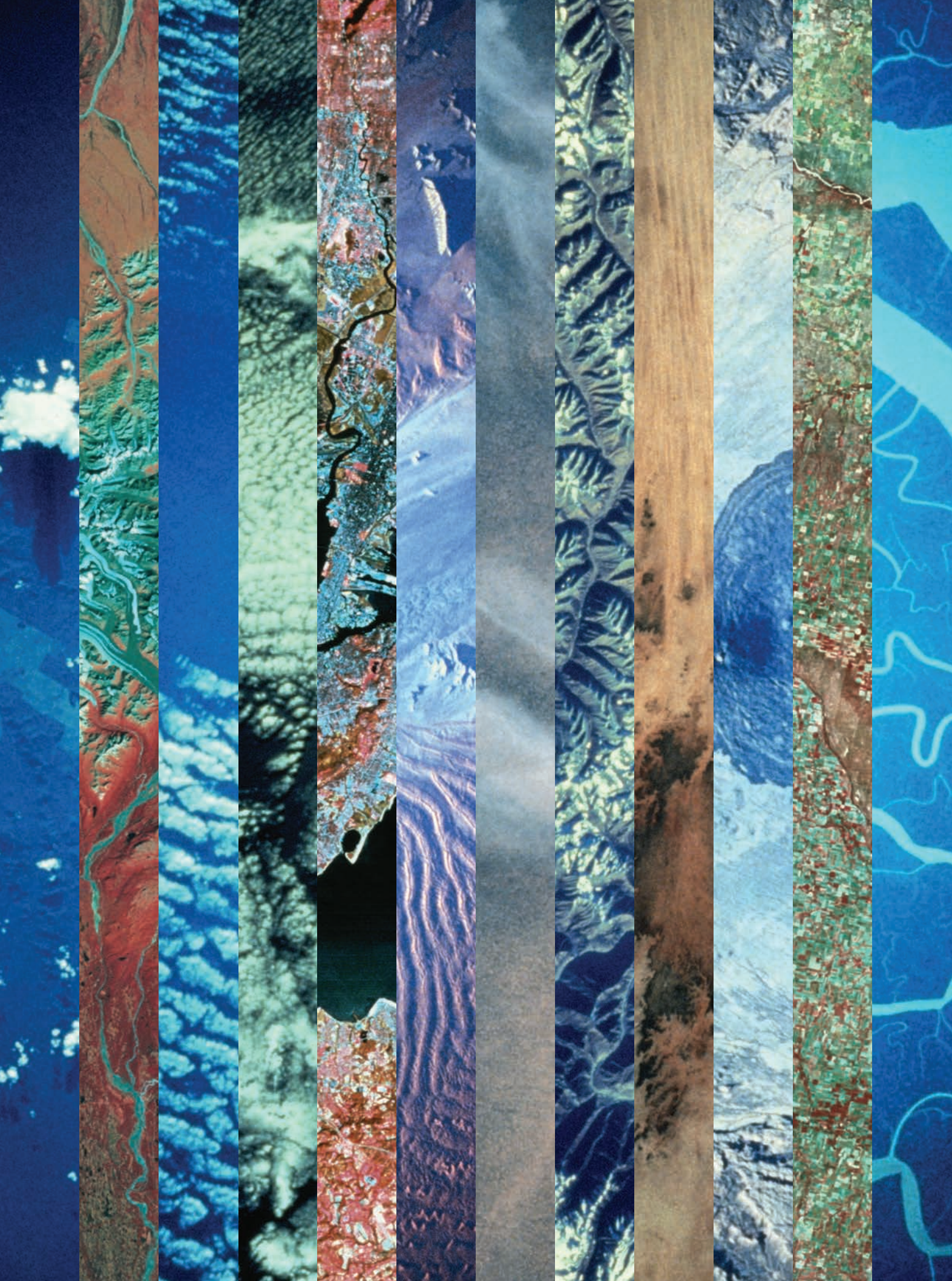
A CONCEPTS BANK AND TOOLKIT FOR FUTURE-MAKERS

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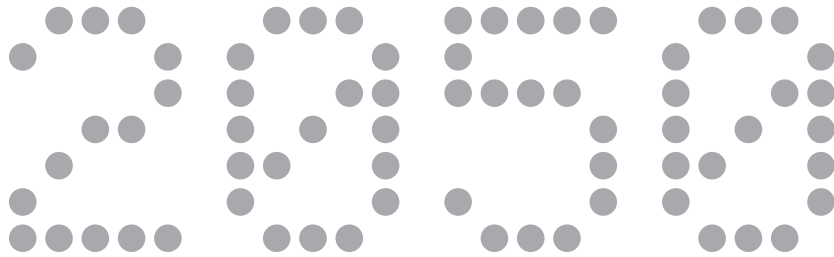*Ideas for the new millennium*
(1998, 2001)
Designing 2050: Pathways to sustainable prosperity on Spaceship Earth
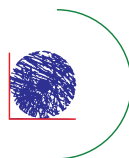(2008)

Peter Ellyard

DESTINATION 2050

A CONCEPTS BANK AND TOOLKIT FOR FUTURE-MAKERS

PREFERRED FUTURES INSTITUTE

*To Maurice Strong who has devoted his life to envisioning and
building a better and sustainable future and who reminded me how
big a difference a dedicated and passionate individual can make.*

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PREFACE

Dear Reader

This is my second book on the theme of 2050. It is a companion to my first one, *Designing 2050: pathways to sustainable prosperity on Spaceship Earth* (2008).

This book contains most of the core concepts in the first book less the detailed discussion and argument, and all the new concepts and language I have developed over the last five years. It is concise and gives those who don't wish to read *Designing 2050*, a 500-plus page book, access to my thinking. If you need more detailed argument please read *Designing 2050*.

Those who would like to use my concepts and tools to shape the future can use this book as a ready reference either as a hard copy or as an e-book. As far as I am concerned all of this material continues to be work in progress. I also plan to update the e-book regularly. I would be interested in hearing about the experiences of people who are using this book so I can learn from them and adapt my work so that it becomes an ever more productive toolkit for understanding and shaping our shared future.
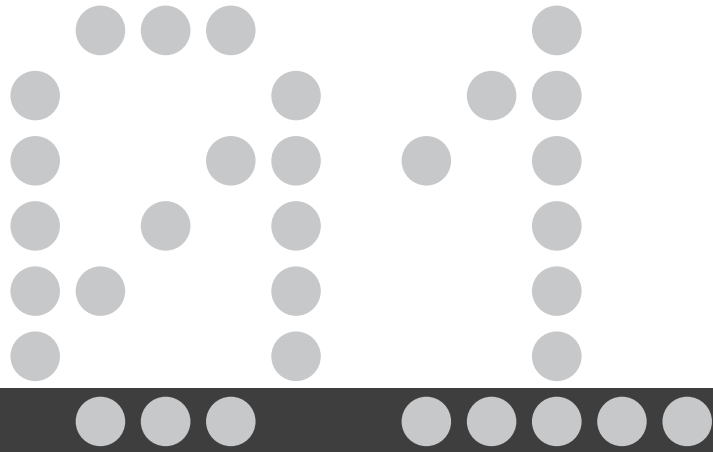
Peter Ellyard, Melbourne
peter@preferredfutures.org
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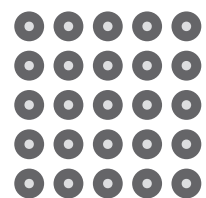# CONCEPTS
BANK

01

Destination 2050

IN OUR LIVES AND WORK there are two things we do all the time that are essential for our future success: we seek to shape the future; and we initiate, nurture and, where necessary, terminate relationships. We seldom shape the future alone. Most of the time we need the active or implicit support of those with whom we have important relationships. So when we do this it is critical that we honour these relationships and not harm them, and try to ensure that there is mutual benefit from our working together.

It is therefore not surprising that in my work as a futurist I have sought to develop concept banks and toolkits so that everyone can be the most effective shaper of futures and initiator, nurturer and amicable terminator of relationships they possibly can be. A major part of this book describes these concept banks and toolkits.

Before you read what I have to say about shaping the future and initiating, nurturing and (amicably) terminating relationships you might like to reflect on how you currently accomplish these tasks and how successful you are at accomplishing these tasks.

But while some of the most important requirements for achieving future success are that we develop superb future shaping and relationship building capabilities, we also have to be able to understand both our present situation and the emerging conditions and trends in which we are going to operate. And it is here that I will commence by describing our current collective status—the state of our planet.

A global conversation about the year 2050 has commenced. We are collectively concerned about what needs to be accomplished for humanity to create a climate-safe world by 2050. In my own country, Australia, discussions are being held about what should be Australia's immigration intake today in terms of the implications of this intake for Australia's population by the year 2050. There are many equivalent discussions around the world. The year 2050 is already developing into a year of both focus and of reckoning. This is two generations hence. It should be a cause of celebration that we are having these conversations at all and that we are thinking about global and national agendas to be accomplished two generations hence: humanity has not been renowned for being far-sighted.

But climate change is just one big future challenge. As I will show shortly, there are many similar challenges facing humanity: overcoming our common financial vulnerability to the actions of rogue banks and irresponsible national governments; creating fair and free global trade; dealing with tyrants who resist democratisation and massacre their own people, to name a few. If we are to meet such challenges by 2050 or even before, what should be on our agenda for collective strategic action?

This is the question I would like the reader to contemplate.

This book seeks to provide the means to shape not only our own individual futures but also our collective future and the future of our planet—humanity's shared home—over about two generations. Two generations is a good timeframe to consider big issues for two reasons.

First, 2050 is far enough away so that what we seek to achieve does not engage the full attention and opposition of powerful vested interests, who are usually focused on shorter-term agendas and self-interest. Courting confrontation is not usually the best way to bring positive long-term change. One will spend too much time fighting wars and the creation of positive change will have to be put on the back burner. It is better to realise change by generating synergism not antagonism. This can be accomplished by understanding shifts in values, public opinion and markets and strategically reinforcing or redirecting them. This involves going with the flow and redirecting it where necessary and forming alliances with those who share your aspirations. Interestingly, such shifts—and sometimes they are massive ones—can creep up on us unexpectedly. With hindsight we know that more of us should have seen them coming. Some examples are the end of apartheid in South Africa in the early 1990s, the collapse of the Berlin Wall and all it represented in 1989, and the fall of the Manchu Dynasty and the rise of the Kuomintang in 1911. In these cases long-term dominant autocracies had been slowly undermined for years and then they collapsed surprisingly quickly. All of these situations had reached a 'tipping point', to utilise the concept advanced in Malcolm Gladwell's book of the same name, and a strategic intervention or two made a huge difference. So the art form is to identify potential tipping points before they occur and prepare to intervene strategically in the right place at the right time. In this book I will describe many long-term trends and I will suggest how we can strategically intervene with various toolkits and strategic actions to nudge things forward and activate tipping points.

Second, two generations is close enough to be meaningful for those who want to visualise, design and construct a world in which people we actually know can thrive, namely our grandchildren and their generation.

This book is a concepts bank and toolkit for those who want to make the future world a better place through their work and life choices and to construct a better future for their children and grandchildren and for their generations. The means which we can use to achieve such aspirations in the second decade of the 21st century are very different from the methods we would have used even twenty years ago. Today most people on the planet, including rapidly increasing numbers in poorer countries, can participate and trade in global markets because they have the connectivity and the global perspective to reach and converse with people everywhere. We now can realistically believe that we can change global outcomes if we set out to do so and every international conference and convention is a testament to this belief, despite the many disagreements and difficulties that occur at most of these events.

So let us imagine what might be accomplished.

Imagine a global society that is universally prosperous, sustainable, secure, just and harmonious (just five key words) by the year 2050: a vision I shall call *Destination 2050*. We cannot create a future we do not first imagine. Imagining in some detail what the world could be in 2050 is a critical part of charting a journey to it. This book is full of these details and of the means to realise Destination 2050. Some will still say that taking such a grand vision seriously is unrealistic and too idealistic. But history is full of examples where a grand vision is realised because it inspires people to stretch themselves. A prime example was when in May 1961 John Kennedy envisioned the USA going to the Moon by the end of the decade, something many people thought was impossible because nobody then had a clue about how it might be achieved. The Apollo program became a heroic journey that inspired humanity to accomplish what had previously seemed impossible.

When they are asked to achieve big goals many people tend to identify the major challenges facing humanity as undesirables to be eliminated. They might list eliminating or reducing poverty, lessening unsustainable practices, reducing conflict between cultures and religions, decreasing insecurity and injustice, and defeating organised crime. They see the removal of an undesirable situation from the future as more practical and realistic than seeking to realise its opposite—a desirable—in the future. However, there is a big and often unrecognised difference between these two approaches. Those involved in public policy, in planning the future of corporations and communities, and in planning individual and career life paths will notice a big difference if they frame their questions in terms of *adding positives* to the future rather than only *removing negatives*. Fighting poverty is not the same as creating prosperity; abolishing wars is not the same as building peace; healing illness is not the same as creating wellness; overcoming schoolyard bullying is not the same as creating schoolyard kindness; and reducing industrial carbon emissions is not the same as innovating zero carbon emissions.

The process of creating a positive rather than abating a negative not only eliminates the pessimism and the enervation flowing from framing questions and defining strategic plans in terms of the removal of negatives, it facilitates more creative approaches to policy and program development. I will have a lot more to say about this issue, for it goes to the core of the difference between management and leadership.

There is also little to be gained if somebody suggests that something should happen but does not offer any suggestions about the means by

which it could be achieved. As I will show, good leaders do both of these. Tim Jackson in *Prosperity without Growth* (2009) argues that the world's biggest problem is economic growth itself and that we need a new model for economic development because it is impossible to 'decouple' GNP growth from resource use. But he offers little in terms of visualising a preferred future alternative scenario, saying in his 2010 Deakin Lecture that 'we have no idea about what this economy looks like' and 'we don't know what life is like in such a scenario'. Because his comments do not suggest or motivate action to realistically address this issue his comments make only a temporary ripple and we get on with other things. In this he is part of a long tradition of prophets who include eco-luminaries such as Paul Ehrlich and David Suzuki, who define the problems superbly but who generally fail to suggest inspiring, workable solutions and programs to meet the complex challenges they describe.

Futurists like myself are optimists. We believe that humanity is mature and intelligent enough to accomplish whatever is needed to realise such heroic destinations. It is my view that with some new concepts, language and tools, we can make the current system, including our addiction to resource-consuming economic growth, work better and deliver a legacy we think could be worthy of our best selves, namely Destination 2050. Inspiring visions can motivate humanity to take a more heroic route by creating circumstances that encourage humanity to stretch itself to reach more courageous goals. For those who still think realising Destination 2050 to be a utopian aspiration, I will try to show you in the following narrative and megatrend analysis why I believe this aspiration to be realisable, and also to show you that since about 1970 humanity has already traversed to a mid-way point on the journey to Destination 2050. Therefore the flow of events is already proceeding in the right direction. Strategic interventions have to be taken that advance tipping points and consolidate these promising trends.

MAKING THE WORLD A BETTER PLACE

John Donne preached in 1624 that 'No man is an Island entire of itself. Everyone is part of the continent, part of the main'. He continued his famous Devotion stating that we are all 'involved in mankind'. At this time there were probably few adherents to his view. Nowadays, a significant portion of humanity shares Donne's view, for as Nelson Mandela said in 2000, now 'we live in a global neighbourhood and *it is not to the long-term benefit of any* [italics mine] if there are islands of plenty in seas of poverty. We need a globalization of responsibility. Above all this is the challenge of the new century.' Similarly, a wealthy Chinese man recently said to me, 'What is the point showering all my wealth and love on my own children if one day my son, when walking down the street, is murdered by a poor man

who wants to possess his shoes? I am aware that I should contribute to the wellbeing of other people's children as well as my own.' He indicated this was more so today than when he was child and lived in a small Chinese village where everyone knew everyone else. From now on his son more likely would be walking down a street in a 21st century community where his culture was not dominant and his family was unknown.

What that shrewd, wealthy man was indicating was that he agreed with John Donne's argument that we all must be *involved in mankind*, and that what some people might see as pure altruism he sees as enlightened self-interest.

THE 21ST CENTURY: THE CENTURY OF THE PLANET

In 1962 Marshal McLuhan predicted the emergence of what he called a *global village*. Kenneth Boulding in *The economics of the coming Spaceship Earth* (1966) described the need for the world to transform itself from what he called a 'cowboy economy' into a 'spaceship economy', though unfortunately he did not detail his thinking. Richard Buckminster Fuller wrote *Operating manual for Spaceship Earth* in 1969. Their thinking was inspired by the Apollo program: in December 1968 the Earth's peoples were astonished by the Earthrise photographs: those pictures of our fragile, beautiful planetary home taken by the cameras aboard Apollo 8. Many of us who saw these photographs at that time were changed by the experience. They altered our perceptions of our planetary home—and they made a powerful argument for why we should be *involved in mankind*. This was an important tipping point that quickened some transformations of perception that were already under way.

After Apollo, NASA changed its strategic direction. Rather than proceeding on to other planets in our solar system as was originally proposed, NASA changed its priorities and turned its technology towards our Earth in order to map, better understand, and find better means to manage our fragile and vulnerable planetary home. NASA had itself been informed, inspired and transformed by its own Apollo program. And commencing with the passage through Congress of the US National Environmental Policy Act (NEPA) in 1969, the era of environment concern was born.

The prophecies of McLuhan, Boulding and Buckminster Fuller in the 1960s and John Donne in 1624 are now being realised in the early 21st century. We are witnessing the creation of a single integrated global society before our very eyes. This society could be a major achievement of humanity

the collaborative builder, but it is also a society highly vulnerable to humanity the destroyer.

I am going to provide a brief version of the narrative describing these historic transformations. This is told in more detail in *Designing 2050* and elsewhere. And I am going to extend this narrative into the future and predict what is going to happen in the next four decades. We can predict:

1 The products and services that will be in demand in 2030 and beyond
2 The products, services and job categories that will be present in 2030 and the ones existing today which will have disappeared by then
3 The new industries that should be established and the innovations created to ensure our collective future sustainable prosperity and the realisation of Destination 2050
4 The ethics and values that will emerge, and the skill sets people will need to have if they wish to be successful in this emerging integrated global society.

In describing these new emerging trends and possibilities I will also be describing the emerging 21st century global marketplace and the emerging global economy this marketplace will shape.

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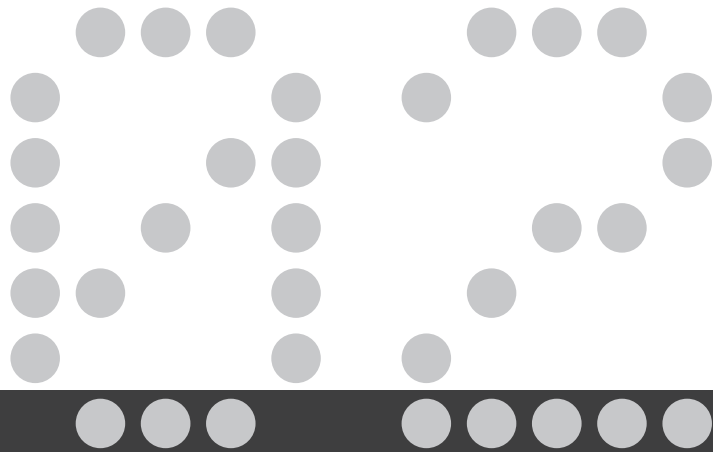
The century of interdependence

GLOBALISATION

THE CREATION of an integrated interdependent 21st century global society is already under way and is being shaped by three major drivers: globalisation, tribalisation and technological connectivity.

Most of us have a good understanding of globalisation. Many people see it primarily as an economic integration, but it is more than this. Marshall McLuhan's *global village* is the metaphor I like to use to explain globalisation from a different perspective.

Our genes appear to have programmed us to live in small groups about the size of extended families of approximately fifteen people in villages of up to about 500 where everybody knows everybody else, and where we converse and trade by visiting the village market and the village well. Urbanisation was a pretty slow process until the industrial revolution in the late 18th century, and most of humanity continued to live in villages and small towns. The industrial revolution changed all of this and an increasing number of people chose (or were forced) to live in large cities where they did not know most of the people surrounding them. Indeed, the industrial revolution embedded the idea in us—present to this day—that cities provide both greater opportunity and increased danger. However, if we can manage it we will always try to bring with us something of the village environment, to wherever we live. Our genes have been selected by evolution for us to thrive in villages: here we are genetically programmed to stay well. So if we have the means to have village-like relationships or conditions, or to trade with people as if we were in a village, we will do so. And as I will show shortly, we are creating the technology to achieve this.

We evolved in communities of a single culture, so communities of many cultures are still a challenge. However, we are coming to know that if we are to make pluralistic communities work we must respect difference, and an increasing number of people are beginning to embrace the concept of multicultural mega-communities such as the EU. We are also coming to realise that many of the big issues we must deal with (such as climate change, terrorism, nuclear disarmament and creating a global trading system that works for all) can only be dealt with by the form of cooperation we find in a village when it is confronted by a shared threat like earthquake, fire or flood. And this in turn means that we have no choice than to create solutions that are win-win for all, not win-lose, because if we seek win-lose we will never get agreement. We are signing many global agreements to help us manage our planet as a single entity rather than remain as competing tribes, nation states and regions, and we are investing more in organisations such the UN, the EU, the G20, the International Criminal Court and the WTO to try to make this a reality. Our negotiations on climate change, and

our universal support for people-power democrats trying to overthrow autocratic governments wherever these are, are also examples of our increasing *involvement in mankind*.

The growth of global trade as part of globalisation is lifting hundreds of millions out of poverty and creating the massive growth of an educated middle class. This class now numbers 1.4 billion and is growing every three months by the population of New York City. In South, South East and East Asia, the educated middle class will reach 1.2 billion by 2020. According to the UN Population Division and Goldman Sachs, by 2030 China will have approximately 1.4 billion middle class consumers compared to 365 million in the US and 414 million in Western Europe. India is next, with its middle class predicted to reach 1.07 billion by 2030. By 2030 there will be at least one billion educated middle-class people living in tropical environments.

What is the significance of this? The answer lies in the values of the educated middle class, for they have similar values the world over. They value small families, tertiary education, human rights, democracy, gender equality and nurturing the environment for present and future generations. They are committed to continual self-improvement in all its forms. With the spread of their values through technology and the demands they are placing on markets, these educated middle-class people are shaping the form of an emerging planetary society, a society that increasingly operates oblivious to national jurisdictions. A single integrated planetary society is being born. As Marshall McLuhan prophesied in the 1960s, the planet now hosts an emerging multicultural global village. Our old arrangement of being separated into many different tribal cultures often in conflict with one another is fast disappearing. The single pluralistic planetary society emerging in its place will be fully developed by the year 2050.

This emerging society—this global village—is becoming ever more integrated and does not want cultural and religious difference to be a reason for disrespect and intolerance. Indeed the opposite applies: difference is increasingly respected and treasured. The cohesive centripetal force of genetic unity is gradually overpowering the divisive centrifugal force of cultural difference. We are evolving the mindsets and values to enable us to cohabit in this pluralistic global village.

Unfortunately and obviously, as demonstrated by the bloody resistance of ruling autocratic authorities to the people-power revolutions in Iran, Morocco, Libya, Egypt, Yemen, Bahrain and Syria, this society is not emerging without considerable pain and resistance from the old order. And these trends are not yet significantly abating intertribal conflict in an Africa that is still largely populated by people living in poorer tribal communities with lower educational achievements. However, even in Africa a significant shift is now beginning.
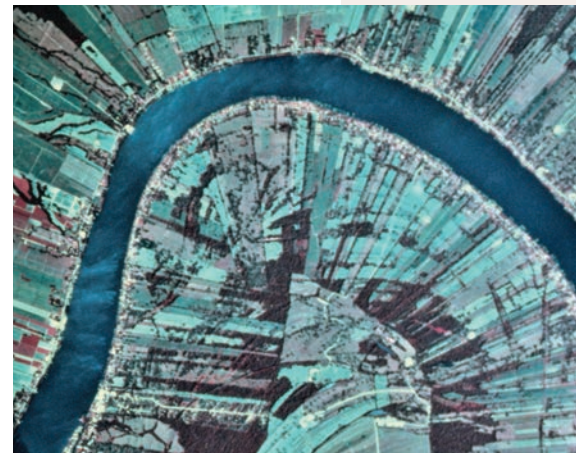
TRIBALISATION

Old empires are breaking up to form many smaller tribal states that then join new political interdependent organisations like the EU, ASEAN and the UN.

Here are a few examples of this. The old Soviet Union (really a Russian empire) is now fifteen separate nations. In 1989 all of these began separating from the Soviet Union. Some then sought to join the European Community as interdependent entities. There are signs that Vladimir Putin is trying to recreate a 21st century version of the Soviet Union. He will certainly fail unless he recreates it as a European Union style democratic union—and then he would only have as much influence as the Chancellor of Germany has on the EU: significant but hardly what he probably visualises. Yugoslavia, the former Serbian empire, is now seven nations with both Montenegro and Kosovo only recently gaining independence from Serbia. And, led by Slovenia and Croatia, most of the countries of this former empire are dedicated to joining Europe when they can. Tribalisation is being aided by democratisation. Virtually no autocracies are successful pluralistic entities, for they tend to repress difference. Democratisation is an essential ingredient of self-determination, at least of peaceful self-determination. One of the best examples of this occurred in Czechoslovakia where the arrival of democracy facilitated the 'velvet divorce' between the Czech Republic and Slovakia. Indonesia, the Javanese empire, has already given Timor Leste independence but continues to repress the struggles of Aceh and West Papua, among others, to free themselves of Javanese dominance. The Han empire—China—holds together but its future as a single entity is far from certain. Tibetans and Uyghurs are seeking independence and facing Han oppression as they do so. How many more non-Han vassal states will eventually follow? There is no doubt that over time either the Han will permit more autonomy and greater democracy or secessionist movements, violent if necessary, will continue and with the support of global public opinion will ultimately be successful.

This tribalisation trend is ongoing. The break up of the UK will continue with the secession of Scotland and possibly Wales; Catalonia and the Basque country will secede from Spain, and Tyrol from Austria. South Tyrol/Alto Adige and possibly many of the other regions that first united in the 19th century to become Italy could likewise secede. All these cultural entities will want to do this because each of them can now have their cake and eat it too. They can celebrate their own unique culture as a tribal state but also have the benefit of belonging to a large interdependent European Union based

on mutual respect, mutual obligations and the collaborative pursuit of prosperity. Both the Czech Republic and Slovakia joined Europe at the first opportunity after their political divorce.

As we globalise and tribalise together we make many mistakes when we fall back into old patterns of behaviour—and then we learn from them. The financial problems facing Europe in 2011–2012 following the Greek sovereign debt crisis and the potential contagion of other European nations is an example of this. The EU made extraordinary efforts to protect the EU family as a whole by bailing out Greece, despite selfish and irresponsible behaviour more akin to that of a belligerent teenager in conflict with his own family. Greece did not act as a mature government. It felt its pain not its responsibility. This is a testament to the new era and the recognition that we are all *involved in mankind* and that we need to find win-win outcomes. Europe gave Greece tough love, trying mightily to bring its belligerent teenager back into the family fold. Greece saw the toughness but did not see the love.

TECHNOLOGICAL INTERCONNECTIVITY

It is no accident that virtually no form of team sport or game is played by a large number of people. Eighteen per side and only two sides is pretty much the upper limit. This was probably the optimal organising module we had in Palaeolithic times, and this module (that of an extended family) dominated the world until the industrial revolution. We now want to connect across the planet as we did in a village of about 500 people and we want to know, in real time, the intimate details of the lives of those who are important to us.

When I left Australia as a young man to study at Cornell University in America, I would hear from my family once a month by letter, with news that was at least one week old. I felt my aloneness. Now even though we travel more people do not have quite that same sense of isolation. In an era of the internet—and via Skype, Facebook, Twitter and other social media— we are again communicating as villagers do, but across the planet. And we are creating better ways to do this because of our desire to be as close as we can to our family and friends. We can now maintain intimacy with them and constantly reaffirm and grow our friendships. There is even a group of people whom we just *feel* we know because of modern technology. We are in the era of the celebrity, of people we do not know but whom we feel close to: as shown, for example, by the nearly *three billion people* who watched the wedding of an English prince in April 2011. Interestingly, the internet, the mass media, Facebook, Skype and Twitter are not only reaffirming and growing intimacy and friendships, they are also creating a new kind of relationship, *virtual intimacy*.

As indicated, we are now aware of our shared fate and vulnerabilities and seeking to go back to the future to behave like villagers again but

on a global scale. Thanks to technology, we can have both the advantages given us by belonging to an industrial culture based on large numbers of people living together and the intimacy required by our genes. For this gain, however, there is a loss. As we seek to grow both a new global *and* new regional cultures—expressed by words such as the European Community or the Global Community—over the top of the old national/tribal cultures, one major bastion of cultural organisation, the independent nation state, is in long term decline.

GLOBALISATION AND TRIBALISATION

Every year millions migrate to seek greater opportunity or flee repression and danger to seek safety. They leave their cultural homelands to live in the communities of other cultures. Tribal diasporas (Pakistanis in Dubai, Greeks in Melbourne, Turks in Berlin, Algerians in Paris, Jamaicans in London) are ubiquitous and their numbers are massively increasing. The challenge for the recipient community is to integrate these people into their mainstream society while allowing the immigrants to celebrate their cultural heritage and recognising their right to do so.

   Going by what has happened in the past, recipient communities displaying cultural and religious hostility to incomers limit the immigrants' economic and social opportunities, which tends to force them to find illegal ways of supporting themselves and so sows the seeds of tribally based organised crime and terrorism. But such intolerance is decreasing. On the other hand, if there is a culture of growing harmony new industrial futures and economic opportunities can be created which simultaneously celebrate cultural difference and human unity. Here are two examples:

1   World music, a musical genre that celebrates both cultural difference and human unity; and
2   World food halls, which consist of a central shared eating area with different cultural cuisines being served from boutique kitchens.

   Globalisation and tribalisation are interacting to reshape our planet and to create new opportunities. After the fall of the Berlin Wall in 1989 changes under way for decades sped up. We have witnessed the collapse of command economies such as in the Soviet Union, where economies were mostly shaped by government investment, and the global dominance of the market economy. The market economy is mostly shaped by customer choices, and customer choices and trade with others all over the world can shape economic conditions inside the border of a country as much as any action by its government.

Globalisation, tribalisation and technological interconnectedness are collectively causing four long-term trends.

First, they are weakening the power of individual nation states to shape the lives of their own people. This is because governments of nation states cannot significantly influence activities beyond their borders. However, people living beyond their borders can, by trade and investment assisted by technological interconnectedness, influence the lives of people living within these nation states. For example, many members of cultural diasporas in developed countries send money back home to their families and invest in and assist their homeland in other ways. Another example of this can be seen in the Arab Spring, where expatriates who oppose autocratic governments collaborate with those inside to overthrow these governments.

Second, the combined forces of globalisation, tribalisation and technological interconnectedness are strengthening corporations because, unlike governments, corporations can operate everywhere and anywhere. The number of global corporations is increasing. These corporations are both commercial, like Toyota or Apple, and non-commercial/humanitarian, like World Vision, Amnesty International and Greenpeace.
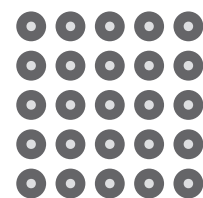
Third, globalisation, tribalisation and technological interconnectedness can increase the economic prosperity of *communities within nations* because these communities can now trade directly with the world using technological interconnectedness irrespective of the regulations and controls emanating from national governments. For example, in Australia one small community, Byron Bay, has become a significant centre for television and film writers who send their scripts all over the world. And Queenstown in New Zealand has become a home of wealthy investors who invest all over the world while they also invest in the development of Queenstown and New Zealand.

Finally, the combination of these forces is fortifying the political and economic power of *communities of nations* such as the EU, ASEAN, the East Asia Summit, NAFTA, CAFTA and Mercosur. Besides increasing global interdependence, these arrangements provide their member nations with greater collective clout in global markets and better protection from unfair operations in the global marketplace.
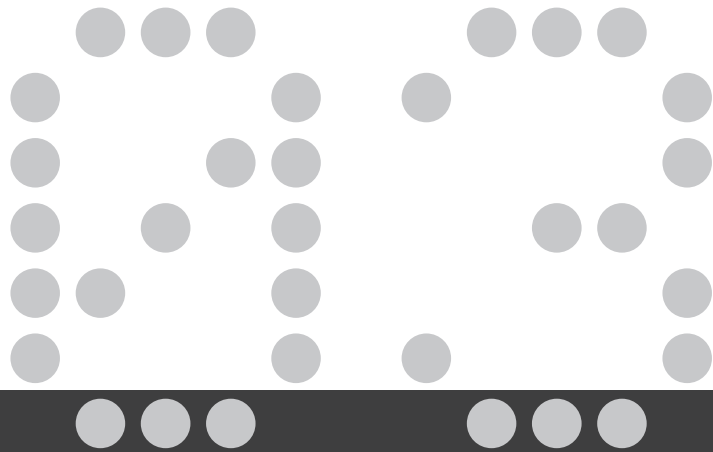
The birth of planetism

MODERNISM

THE 19TH AND THE EARLY TO MID 20TH CENTURIES were dominated by the paradigm of modernism. Modernism believed in replacing the old with the new simply because it was new. Old meant inferior. People believed in 'progress' and established progressive movements and progress associations to promote modernisation, promoting newness everywhere while derogatorily declaring the old to be 'old fashioned/out of fashion'.

Although modernism was ubiquitous, conflicts emerged about the best means to achieve its goals, and these caused the great ideological divisions of the 20th century: communism versus capitalism, fascism versus socialism, autocracy versus democracy. These conflicting ideologies all supported modernist ends, but disagreed violently over the means to be used to realise these ends in vicious struggles that polarised much of the 20th century.

In the name of modernist progress we 'tamed' and destroyed the environment and eliminated, marginalised or assimilated indigenous cultures and cultures deemed inferior. And even as imperialism and religious evangelism that were originally associated with modernisation declined in the 20th century modernist 'progress' had by this time developed its own momentum and continued to drive global change.

However, there was an inevitable backlash against this rampant modernism. We saw that modernist progress was beginning to cast a long shadow. We began to be ashamed by the things we did in the name of modernity. The feeling that accompanied the use of the phrase 'you can't stop progress' shifted from enthusiasm to resignation and then to cynicism. Joni Mitchell summed this feeling up perfectly in her 1970 song 'Big Yellow Taxi' when she sang that we had 'paved paradise and put up a parking lot'.

And so in about 1970 postmodernism was born. I have already mentioned that in 1968 we saw the Earth for the first time from space. The Earthrise photographs were also probably a tipping point that helped to trigger the collapse of modernist thinking. Modernism after all carried with it disrespect for nature, the old and the different. Our collective consciousness was shifting as we were being forced to recognise that all humanity has a shared vulnerability, a shared home and a shared destiny. The time for a new paradigm had come. Modernism became a totally inappropriate paradigm to guide our journey into the future from that point on.

POSTMODERNISM

Among other things, postmodernists believed we should keep past things of value and integrate them with the best of the new. So we retrofitted heritage buildings with new facilities rather than demolishing them. We created new art and music that showed respect for, and even appropriated from, the best of the old and used these appropriations for new purposes.

We saw that acupuncture, yoga, ayurveda, tai chi chuan, and shiatsu can complement the latest medical treatments rather than be dismissed as mere quackery as they previously had been by modernist medicine. We changed many of the words we used to signify that we now valued things we had regarded as having little or no value: swamps became wetlands, and slums became heritage precincts. What then will follow postmodernism?

Before considering this, think about what has happened over three centuries:

1   The 19th century was the century of dependence—most people lived in colonies that sometimes were even called dependencies.
2   The 20th century was the century of independence—by its end the majority of people lived in independent countries.
3   The 21st century is the century of interdependence, where independent entities voluntarily give up some of their independence to seek the benefits and synergies that come from union.

These are also the three stages of maturation for our own species:

1   Dependence—childhood
2   Independence—adolescence
3   Interdependence—adulthood.

Interdependent relationships are mature relationships, and for success in an increasingly interdependent 21st century we all need to know how to initiate, nurture and amicably terminate specific interdependent relationships.

INTERDEPENDENCE

Interdependence is the key to describe our emerging 21st century global society: our growing political and economic interdependence, and our increasing awareness that we share an ecologically vulnerable planetary home, and that a greedy or profligate bank, hedge fund or company, or a selfish nation, can pull us all down because we are now so financially interdependent and are interdependent in many other ways as well.

The core principle of interdependence is that two or more entities seeking to build a closer relationship because of the shared benefit coming from union must relinquish some of their independence. Individual rights have to be balanced by reciprocal responsibilities to others.

Unfortunately, although we are becoming interdependent, we carry with us some values that might have had cultural survival value in the past

that can now undermine our ability to achieve success in the emerging global society. Our agenda must now include answering Garrett Hardin's question in his essay *The Tragedy of the Commons*, to wit: 'what forms of mutual coercion can we mutually agree upon?' This will be the basis of our negotiations from now on. When we deal with shared vulnerabilities such as climate change and financial interdependence, there can no longer be winners and losers as was the case in the modernist era. Now the only choice before us is that we can create outcomes that permit us *to win together or eventually we will all lose together*. Unless we find the means to mutual benefit there will be no agreement. This applies to everything we do, whether this be creating effective and fair global trading; protecting and decriminalising financial and investment systems; improving global equity; overcoming the threat of global warming; securing ourselves against terrorism and organised crime; growing global communications; or achieving nuclear disarmament.

Of course, not everybody is part of this process or willing to accept its inevitability. Some that come to mind are religious terrorists and the governments in nations such as Burma and Zimbabwe (both until very recently) and North Korea. However, we are already interdependent enough to collectively and effectively punish planetary rogues and pariahs by:

1   Applying trade bans against them
2   Boycotting purchases of products and services they market (including through the internet)
3   Freezing their bank accounts, and
4   Withholding investment capital from them.

I collectively call these punishments the *interdependence punishments*. As our interdependence increases these punishments will become even more powerful.

Wars were created to settle disputes—certainly humanity's stupidest solution to a problem. Now there are many other means to settle a dispute, and the basis of most of them is that in the 21st century we are all *involved in mankind* and so interdependent that war is no longer a feasible option as a conflict-resolving tool. Even if there is a war it is never a fight to the finish but is used to position oneself for the negotiation that global public opinion will pressure both sides to undertake. If the parties involved continue with war they will face the International Criminal Court (ICC), which can punish people who commit crimes against humanity such as genocide. One only has to look

at the Arab Spring in nations such as Libya or Syria to witness this trend. In future those who commit crimes (or war) against nature—by, for example, slaughtering a pod of whales, poisoning a river, or decimating a high value rainforest—can also be brought before the ICC.

Before we initiate any kind of interdependent relationship, there are three questions we need to be able to answer if we are to place our trust in the other person or entity. We need to know if the other is:

1 Honest
2 Reliable
3 Competent.

If the answer to these questions is yes then we will commence forming an interdependent relationship based on mutual trust and a mutual commitment to win-win. As the EU found with Greece, the Greeks were not trustworthy because they were neither honest nor reliable even if they could successfully convince others that they were competent. A critical ingredient of the sovereign debt crisis in Europe in 2011–2012 was this disappearance of trust. Multilateral interdependent relationships require not only trust but also sufficient operational transparency to ensure that all partners can continuously demonstrate that they are worthy of this trust. There will be a lot of learning from this fiasco.

Despite the problems that occur with international interdependent relationships, global interdependence is still growing, so both individuals and groups of all kinds will need to become much more capable at initiating and maintaining—and, if necessary, amicably terminating—interdependent relationships. This is one of the biggest challenges of the 21st century, and innovators and consultants who can help ensure that interdependent relationships are *synergistic* (2+2=5) rather than *antagonistic* (2+2=3) will be in huge demand.

INTERDEPENDENCE AT WORK: THE EMERGING GLOBAL MARKETPLACE

Our increasing interdependence is catalysing the creation of a single global market. We can tell a lot about the future of markets by using four related words in our thinking: *evaluate*, *values*, *value* and *valuable*. By using these four words and through evaluating how values are shifting we can predict the goods, services and ethics that will pervade global markets in the next few decades, most of which have yet to be invented.

Values shift. Values determine the things people value. Naturally, what individuals value they will regard as innately more valuable, and they will seek more of it or them and less of what they regard as less valuable, and

this will affect their market value. Market research is usually regarded as a process that evaluates market value and valuableness, but for some people it also involves evaluating market values as well.

So what is happening to values and how are these shaping emerging markets?

The following are three alternative allegiances any one person can have:

1 To their own tribe (tribalism)
2 To their nation (nationalism)
3 To the planet (planetism).

Interestingly, when I ask educated youth (such as a group of university undergraduates—Generation Y—the emerging global leadership) to nominate which of these three is their first priority, approximately 80% nominate planetism.

Around the world more and more people are transferring their primary allegiance from tribe and nation—where it has resided for most of human history—into a new primary allegiance to the planet, the home of all humanity. This trend is now well under way and will be completed within a generation.

PLANETISM

To explore this change more fully I am going to appropriate Kenneth Boulding's descriptors, the *cowboy economy* and the *spaceship economy*, to provide the next phase of our narrative. I use this metaphor to document global cultural change between 1970 and 2020 and then on to 2050—over which time the world will have moved from a *cowboy culture* to a *spaceship culture*—and from the paradigm of the *cowboy* to the paradigm of the *cosmonaut*. These terms derived from Kenneth Boulding—the cowboy economy and cowboy culture—are used to sum up the values associated with the individualistic tribal cowboy who prefers independence to interdependence, thinks that might means right, settles differences at the OK Corral, and believes in the dominion of men over everything including woman. And the phrases spaceship economy, spaceship culture and cosmonaut are used to sum up the values of those trying to create an integrated, functioning global society on Spaceship Earth and who view others, regardless of difference, as fellow cosmonauts—provided they don't seek to threaten the spaceship and other cosmonauts.

Planetism is a product of two processes:

1   The increase of mass education both in terms of spread (more people are being educated) and depth (more people are being educated longer). This has lessened traditional tribal/national allegiances to the point that educated people now recognise that all humanity has a shared fate

2   The growth of a sufficient number of people who through globalisation are prosperous enough to have developed a more generous worldview—an enlightened self-interested view rather than a narrow self-interested view. More of these educated, middle class people are now living in Asia, South America and Africa and their numbers are growing massively in the BRICS nations: Brazil, Russia, India, China and South Africa.

In developed countries the transformation is largely complete. In poorer nations and in communities with greater poverty and lower educational achievements the transformation from modernism to planetism has been slower. However, the values of planetism are already informing most global conversations, with cosmonauts (planetists) promoting collaboration/ negotiation to deal with our shared challenges and seeking win-win outcomes while the remaining cowboys (the unreconstructed modernists) still seek confrontation/combat and win-lose outcomes.

Planetism is based on educated middle-class values and is growing with the increase of the educated middle class through globalisation. These people might be progressive or conservative in terms of the old left-right ideological split that so dominated 20th century politics. However, in the 20th century *both* sides of this ideological divide were cowboys (modernists). In the 21st century they are both, with some specific exceptions, increasingly cosmonaut (or planetist). Educated middle-class people mostly believe in the same things irrespective of where they live and the political views they hold in terms of 20th century ideology. They believe in small families, self-responsibility and self-improvement, and place a high value on education, intercultural and interreligious respect, democracy and sustainability. In essence, these are planetist values.

And *planetist values* are the values we need to create sustainable prosperity in a sustainable society on Spaceship Earth. In turn, these values will determine both what people will want to buy in 2025 and beyond, and what will be correct and ethical behaviour by individuals, companies, nations and international organisations in the 21st century.

There are approximately ten key values shifts from modernism through postmodernism and on to planetism. They are summed up in the table below.

The Cowboy Culture/Modernism (1960)	The Spaceship Culture/Planetism (2020)
Priority to nation/tribe	Priority to planet
Individualism	Communitarianism
Independence	Interdependence
Autocracy	Democracy
Humanity *versus* nature	Humanity *part* of nature
Unsustainable development, production, consumption, lifestyles	Sustainable development, production, consumption, lifestyles
Patriarchy	Gender equality
Intercultural and interreligious intolerance/hostility	Intercultural and interreligious tolerance/harmony
Conflict resolution through confrontation/combat	Conflict resolution through cooperation/negotiation
Safekeeping through defence	Safekeeping through security

It's probably helpful to explain briefly two of the terms used above: individualism and communitarianism. Individualism is the philosophy or practice of giving priority to the rights of the individual over those of the community when these are in conflict and communitarianism is the opposite: communitarian cultures prioritise the rights of the community over those of the individual. Communitarianism is really a multilateral form of interdependence. Different cultures vary in where they can be placed on this scale. Australia, for example, is more communitarian than the USA and less so than Germany or Japan. Confusingly, sometimes a nation can be communitarian in one aspect and not in another. When the USA banned smoking in public places, it was being communitarian. However, its gun control laws are individualistic, a result of the right to possess a weapon being frozen in time by the US constitution, which is a product of the modernist worldview that prevailed at the time of its creation. Of course there are many, if not most, educated middle class people in the USA who believe in strict gun control, as is demonstrated whenever a gun related disaster occurs.

## CIVILISING GLOBALISATION, GLOBALISING RESPONSIBILITY

I have been speaking of globalisation in approving terms, though as most people know globalisation has a shadow side. However, globalisation has a complex history. Between 500 AD and 1500 the form of globalisation initiated and conducted by Chinese and Arabic traders was not exploitive or oppressive. This earlier form of globalisation produced mutual prosperity and win-win outcomes. At this time, many innovations were introduced

into Europe, most of them through Jewish and Arabic traders via southern Spanish cities such as Toledo, cities that played a major role in bringing Eastern civilisation to the West. Here Christians, Jews and Muslims all lived and worked together harmoniously.
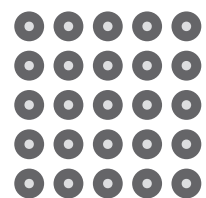
Then, beginning in 1492 with the arrival of Columbus in America, the Spanish subjugated the peoples of the Americas, 'civilised' them through conversion to Christianity and plundered their land and gold. Simultaneously (and not coincidentally), this evangelical Spanish Christian autocracy ended its centuries-old harmonious and collaborative society of Muslims, Christians and Jews. Spain's conquest of the Americas began a new era of global imperialism and exploitation, one in which the Spanish were soon joined by other Europeans including the Portuguese, the English and the Dutch. The process subjugated formerly independent states and turned them into dependent vassal states, with modernisation replacing Christianity as the raison d'être to justify imperialist expansion. This modernist-informed imperialistic expansion assumed that exploitation was the primary purpose of globalisation. It was a form of globalisation that persisted well into the 20th century, only really ending in the 1960s when both modernism and colonialism were in their death throes.

This brutal period of human history so coloured our perspective of globalisation that we began to regard globalisation itself as naturally exploitative. The knowledge of the thousand years of interdependent, mutually beneficial trading between 500–1500 was largely forgotten. But we have now entered an era of 21st century globalisation shaped by humanity as collaborative builder. We are bringing back a 21st century version of the pre-1492 form of mutually beneficial—interdependent—globalisation. And this time it will be truly global. There have been many people and indeed a whole anti-globalisation movement that have, until very recently, promoted the idea that globalisation is a ruthless process that facilitates exploitation. Apart from the fact that these people have not bothered to look at the history of globalisation, they have had the wrong issue in their sights. The problem has not been globalisation per se, but the values that have accompanied globalisation. This anti-globalisation movement has virtually disappeared in the last decade. What is now clearer is that we are leaving behind cowboy globalisation, shaped by modernist values, and seeking win-lose outcomes, and beginning to embrace cosmonaut globalisation, shaped by planetist values and seeking win-win outcomes. Globalisation has lifted hundreds of millions of people out of poverty in the last twenty years, but it will become an even more effective generator of global prosperity as it continues to evolve in a 21st century dominated by planetist values.
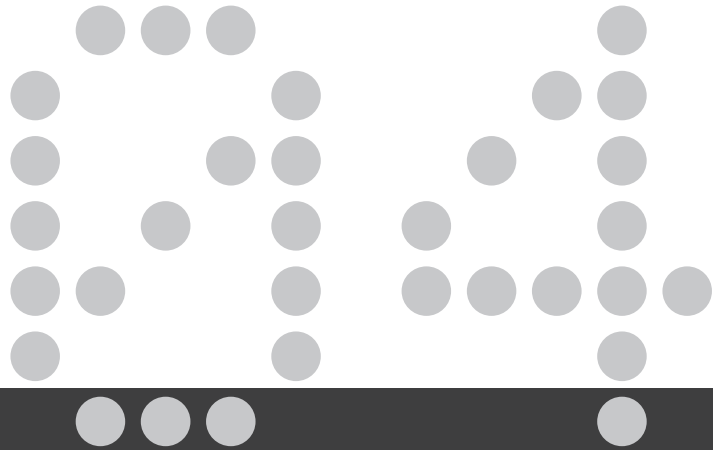
Sceptics' checklist: megatrends

FOR THOSE OF YOU who remain sceptical about my interpretation of trends—my narrative about the transformations occurring in the world between 1960 and 2050—here is my list of seventeen global megatrends currently transforming the world. Judge for yourself whether you believe that these trends are real. Here they are:

01 A more prosperous, integrated, interdependent and pluralistic global society is being created. This is happening through a combination of globalisation (increasing interaction and interdependence in trade and investment and political integration), tribalisation (fracturing of old nation states and empires into separate tribal entities) and the technological interconnectedness (digital and communications technologies and global media) that increases our interconnectedness, interdependence, and awareness of the lives and views of other cultures and of our shared fate.

02 A massive expansion of education, both in terms of its geographic spread to more and more people and the time devoted to education in individual lives, that encourages people to look beyond their cultural roots and see themselves as part of a humanity that seeks to embrace both cultural difference and human unity.

03 The substantial growth of the educated middle class through a massive spreading of prosperity generated by globalisation. This class now numbers about 1.4 billion, of which China and India account for 600 million. This educated middle class is growing by the population of New York City every three months. The result is that the values of the educated middle class are becoming the values that inform global public opinion. This has major implications for global paradigm shifts and the creation of a sustainably prosperous global society.

04 A single integrated global marketplace for ideas, products and services and the emergence of a global public opinion informed by shared values.

05 The interdependent relationship with reciprocal rights and responsibilities is becoming the dominant model in personal, business, workplace and international relations.

06 A growth in communitarianism (giving priority to community rights over individual rights when these are in conflict) and a relative decline in its opposite—individualism. A modified form of individualism is evolving—sustainable individualism—that condones only individualistic behaviour that does not cause net collateral damage to others and the environment.

07 A rise in the global support for democracy. People-power democratic movements, supported by global public opinion and collective action are challenging autocratic administrations everywhere. The number of democracies in the world has increased from just ten in 1945 to about 130 today. Despite resistance from the remaining holders of autocratic power, democracy is on the threshold of becoming a world norm.

08 The increased use of a new suite of measures that use growing global interdependence, global public opinion and international collaboration to penalise rogue nations, companies and organisations. These interdependence punishments consist of trade sanctions, customer boycotts, strikes on capital investment and the freezing of bank accounts. The threat of being tried in the ICC is providing an added incentive to encourage autocrats to leave office without resistance and hand power to democratic movements.

09 An increasing dominance of international and regional forms of governance rather than national governance in shaping the future. The nation state is in long-term decline. Entities such as the EU and ASEAN, the G20, the World Bank, the WTO and the International Criminal Court, and NGOs such as World Vision, Amnesty and Transparency International, and the WWF, are increasingly influential. The complexity of international issues and the level of interdependence between nations mean that it is no longer possible for these to be effectively dealt with by responses from individual nations. Joining international organisations—political unions such as the EU or international organisations such as the WTO—has now become an irresistible pathway for individual nations wishing to ensure their future prosperity. As a result, these organisations continually raise their conditions of entry. So while people were once concerned that globalisation would encourage a race to the bottom—to the lowest common ethical denominator—the opposite is the reality.

10 As more people join the middle class and seek to have careers rather than jobs and families with fewer and better-educated children and as more women seek careers and equality (and so are having fewer children) populations are ageing in many parts of the world. This is leading to a massive increase in automation and robotics to ensure that increasing productivity per working person offsets this decline in relative workforce numbers.

11 There is growing support for religion and tribalism that respects difference, and an escalating pariah status for religion and tribalism that does not. Fundamentalist religion in all its forms is increasingly challenged by its more tolerant alternatives and by international public opinion. This is a 21st century intra-religious battle equivalent to the political battles between autocracy and democracy.

12 There are a mounting number of multilateral agreements that collectively increase interdependence. This is eroding the power of national governments to act only in their self-interest without giving sufficient cognisance to the rights of other nations and the global community.

13 An integrated and interdependent global investment and financial system is evolving. It will operate under one set of rules, and will force international responsibility on all financial institutions whether they like it or not. Speculation on the value of currencies will slowly decline as the number of national currencies decline and speculative transactions are discouraged by taxation and regulation. A world central bank will be established within ten years and a single global currency within twenty years.

14 Our increasingly vulnerable interdependent global financial system is still being severely dislocated by self-interested financial corporations. However, financial corporations that resist broadening their narrow self-interest into enlightened self-interest risk becoming planetary pariahs. Global public opinion and governments have already judged as rogues many such financial corporations. They are being judged as harshly and subjected to as much collective global anger as is directed at autocratic governments bent on repressing their own people.

15 Products and services that realise sustainable production, consumption, development and lifestyles are proliferating in global markets. Many of these will be devoted to both adapting to, and abating, global warming.

16 There is increasing cultural customisation of products and services in global markets. These include the development of what I call World Industries, such as world music, which simultaneously celebrate cultural diversity and the unity of humanity.

17 Organised crime, terrorism and nuclear proliferation, and the collective response by humanity to these threats are also globalising.
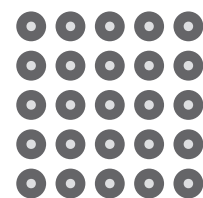
One long-term trend I would like to discuss a little further is that of how the rights of individuals are slowly being changed by increasing communitarianism. As mentioned earlier, smoking in public and owning guns are examples of where individual rights are being limited so that communities can thrive. So are there limits to this trend or will individual rights continue to be undermined by the demands of community? I believe the limits can be found within the concept of 'sustainable individualism'. My definition of sustainable individualism—a sustainable lifestyle—involves individual behaviour that does not cause net collateral damage (harm) to others and the environment. This is the point where a long-term stable balance can be reached between potentially conflicting individual and community rights. On the other hand, *healthy* individualism—a healthy lifestyle—involves impacts of behaviour on self. It involves behaviours that cause no net collateral damage (net harm) to self, and I will be discussing this further in Chapter 9, which is about illness, wellness and ageing.
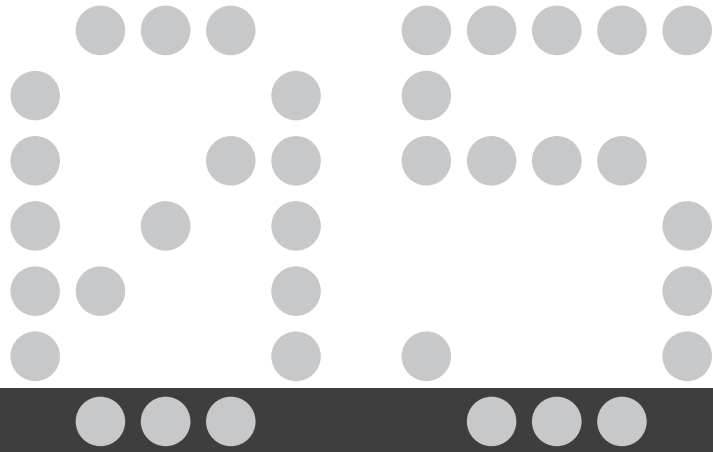
The planetist global
marketplace

AS ALREADY DISCUSSED, the values of the educated middle class—the values of planetism—are presently shaping 21st century conversations, politics and markets. Here are just three examples from the year 2011. In each case global public opinion, informed by planetist values, is supporting, even driving, a series of historic global transformations which are in turn triggering tipping points:

1 The extraordinary spread of democracy around the world, as shown by the Arab Spring people-power democracy movement. The year 2011 was not a good year to be a dictator trying to maintain power by suppressing and murdering his own people. Such a leader will certainly finish up a global pariah and face trial in the International Criminal Court. In early 2012 even the hitherto recalcitrant military junta ruling Burma (Myanmar) recognised that global public opinion and the effective use of interdependence punishments against it had forced it to the tipping point where it must, albeit reluctantly, abandon autocracy and embrace democracy. This is despite their recognition that Burma's biggest customer, autocratic China, would be more comfortable if the Burmese leadership maintained its dictatorial ways, because the birth of democracy on its borders places more pressure on China itself. However, the rise of democracy in China will not be the result of what happens on its borders but what is already happening in China itself. The booming educated middle class of China is already demanding more democracy and transparency in its national affairs and the Chinese Government is already showing signs of slowly providing it, albeit at a rate where the current rulers do not lose functional power.

2 The G20 and indeed the rest of the world is determined to ensure that the global financial crisis triggered by greedy (cowboy) banks and hedge funds on Wall Street is not repeated. As the 2012 rate fixing scandal that emerged from illegal operations by Barclays and several other European banks showed, this is not an issue confined only to US banks. The result of this global recognition of bad bank behaviour is a program of energetic international bank reform, including new international arrangements such as Basel 111 and its successors, which will bit by bit result in a more resilient and responsible global financial system.

3 Despite hard work by climate-change deniers, there is now almost universal recognition of the need to create a climate-safe world by lowering atmospheric carbon. There might be disagreement about the *means* to be used to create a future global low-carbon economic and industrial system, but there is no disagreement about the *ends* being sought. This issue is stretching to the limit the capacity of nation states to surrender their self-interest to the planetary interest, and that of current generations to surrender their self-interest to the interests of future generations.

INTERGENERATIONAL VALUES SHIFTS

It is often said that Generation X and even more so, Generation Y, are disconnected from politics and the community and that they are selfish and apathetic about nation and community. In fact, their concerns have not shrunk back to selfish individualism at all. They have actually transferred their concerns to a higher plane—to the wellbeing of the planet—and are working to develop themselves so that they can thrive in a planetary society offering possibilities and opportunities that are greater than for any previous generation. Their schooling did not help them to prepare for this so they are doing it for themselves, and they use the social media, the internet and each other to prepare for a planetist 21st century. In Australia, for example, many Generation X and Y now travel to places such as Gallipoli and Villers-Bretonneux where Australian soldiers lost their lives in large numbers in World War I on Australia's national memorial day, Anzac Day, to participate in ceremonies there. This is something their baby boomer parents would never have dreamed of doing. They stay at home to honour our losses in war, but their children want to visit the sites where Australian soldiers died on foreign soil.

Generation Y in particular are seeking to understand what it means to be an Australian in a global village, and to be an Australian actor on an international stage—something they are seeking to do in their own lives and career paths. They are reinterpreting the history of Australia's *involvement in mankind*—to paraphrase John Donne—on an international stage, and to understand Australia's role in an evolving global society and their own role in this. Their lack of selfishness can be seen in their deep concern about climate change and the struggle for freedom in other countries like Tibet, Libya, Egypt and Syria. They regard the national interest as less important than the planetary interest. There are many youth organisations around the world specifically focused on delivering a stronger and more purposeful global response to climate change. These young people do not join political parties that are ideological in character, for they think ideology is not a good 21st century way to interpret issues like climate change. They see the 20th century ideological perspective as a part of the modernist past not the planetist future. They examine the evidence and consider a response that transcends national borders and ideological points of view. They are much less interested in joining national political parties, which they consider are not the most effective vehicle to shape the future. Their baby boomer parents on the other hand still often tend to look at the world through 20th century ideological lenses and mostly regard global issues as secondary to national politics and interests. In recent times many baby boomers are recognising that global issues are now so critical for our future that they have no choice but to uplift their own perspectives to global ones as well. Generation X, and Generation Y even more so, prefer to work

on specific issues of concern to them, and on issues that are significantly intergenerational and global in character, such as climate change and intercultural understanding and harmony.

SOME MORE CONCEPTS

As already indicated, the emerging global economic/industrial system is already being shaped by planetist values. In this section I want to discuss several concepts that will enable us to better understand current trends. These concepts can also become bases for the creation of a new generation of future-shaping tools.

In this section we will look at three main areas:

1 Rethinking traditional concepts such as wealth and prosperity in terms of the journey we are making to Destination 2050.
2 Bringing the things that matter to planetists (such as the connections between economy and ecological sustainability, economy and democracy, economy and justice, economy and security, and economy and intercultural and interreligious harmony) into a single framework.
3 Exploring how to envision, describe and discuss all the new products and services that will emerge in the next decades to the year 2050. Since they do not yet exist (though the seeds of many of them do) this is difficult! But this is a way we must think if we are to best utilise the skills of humanity-the-entrepreneur and humanity-the-future-maker in the realisation of Destination 2050.

RETHINKING WEALTH AND PROSPERITY

Some people think, though there are fewer of them than ten years ago, that the domains of wealth, economic growth and sustainable development could and should never be comprehended in a single framework—that these concepts are fundamentally incompatible. I don't agree. However, if our purpose is to increase prosperity, we will need to think differently and more generically about what we really mean by words such as prosperity and wealth. At present, these words are still usually used too narrowly and are still too influenced by 20th century ideological modernist thinking that regards domains such as environment and development as incompatible rather than complementary. Modernist economists for several generations discussed what they called 'externalities'. 'Externalities' included all those things that matter to humanity that were marginalised and regarded as irrelevant by modernist economic theory but that became valued in postmodern times and were brought into the mainstream.

Several visionaries have already pointed out how we can think differently. Richard Buckminster Fuller defined wealth as 'a combination of the physical which must be conserved and the metaphysical that can only grow'. Many readers will be familiar with the concept of the 'triple bottom line' first suggested by John Elkington in *Cannibals with Forks* (1997), in which he proposes that organisations should be accountable for their social and environment performances as well as their economic ones. And in their seminal book, *Natural Capitalism*, Paul Hawken, Amory Lovins and L. Hunter Lovins (1999) used the concept of *natural capital* (i.e. the monetary value of natural resources such as land, air, water, living organisms and the components of the Earth's biosphere upon which we rely to live and be well plus the knowledge of how to use them) as a component of *total capital* along with *human, financial* and *manufactured capital*. Natural, human, financial and manufactured capital are the key capital *inputs* into the processes of development, production and consumption.

However, we need to consider the outputs of development, production and consumption as well as the inputs. Unsustainable outcomes are *outputs* (products) of these processes, not *inputs*. Therefore a new language that addresses the output side of these processes is needed if we are to make significant gains in our attempts to realise a sustainable future. After consideration I decided to use the output-related concepts of *prosperity and poverty* as measures. Prosperity and poverty can be used as measures of total value—as a sum of quantity, quality and complexity—of the outputs of development, production and consumption.

We know about economic prosperity and poverty. This was what mostly mattered in modernist times. But in postmodern times we can add three other kinds of prosperity and poverty to this list: ecological prosperity and poverty, social prosperity and poverty, and cultural prosperity and poverty. So if, for example, we cut down a rainforest we create (short term) economic prosperity while simultaneously creating ecological poverty through reductions in biodiversity and animal habitat, scenic/aesthetic value, water harvesting capacity, honey productivity and so on. On the other hand, leaving the forest uncut could result in the retention of ecological prosperity and an increase in economic poverty, because of the loss of timber related industrial production and employment. Now it is possible to have both economic and ecological prosperity through some combination of two or more of the following: carbon trading, selective harvesting (which might even be designed to increase biodiversity), harvesting water, honey production and eco- or adventure tourism. Indigenous peoples can sometimes suffer cultural

impoverishment when they are delivered economic prosperity and social prosperity through a development project.

Prosperity can be regarded as sustainable if it simultaneously increases or maintains the four kinds of prosperities: economic, ecological, social and cultural. However, if an action increases prosperity in one form while increasing poverty in another, the resulting prosperity that results could not be regard as sustainable. In the postmodern/planetist 21st century we can, and should seek to, do economically well by doing ecological, social and cultural good—simultaneously improving prosperity in all four categories. This involves creating planetist win-win outcomes instead of modernist win-lose outcomes. It was easy to trash these three other kinds of prosperity to create win-lose outcomes in modernist times, but no more. We now must recognise our interdependence with the environment as well as our interdependence with each other when we seeking to increase economic prosperity.

To return to Buckminster Fuller's point that wealth consists of both physical and metaphysical components: it should be noted that there is a tendency to place too much dependence on the obvious physical component of wealth generation and not enough on the metaphysical component. Too many people think wealth comes simply from beneath the ground, out of the soil or off the hoof rather than from between the ears. The metaphysical component of wealth includes *all* the knowledge and understanding we have accumulated—the arts and humanities, the natural sciences, the social sciences and the technologies. To turn this knowledge into wealth we must be both creative *and* enterprising so that we can turn inventions—breakthrough ideas, concepts, designs, plans and technologies into innovations—marketable and tradeable versions of these. Possibly 90% of the products, services and technologies that will be in markets in 2050 do not yet exist: the readers of this book have the opportunity to create wealth by first conceiving them and then bringing them into existence.

In my work as a futurist, when I talk with various organisations about planning for the future I place a major emphasis on imagining and describing the products, services and technologies that they might produce that will be sought by emerging markets—planetist markets. In essence, I am asking them to conceive of a product, service or technology that does not yet exist. This process involves perceiving the need for it, imagining it, describing and discussing it, designing and inventing it, and finally producing, marketing and trading it. If we can do this we can then construct a future-oriented industrial production system that will enable us to prosper by being able to perceive future market demand and then by supplying the sought item—and by doing both of these find success by getting to the future first. The concept of *getting to the future first* was first used by Harvard Business School academic Gary Hamel. In the remainder of this book I will be describing many of these products, services and technologies. Most of these will be required to fully realise Destination 2050.

INNOVATION

I have just referred to products, services and technologies that do not yet exist. From now on I will refer to these collectively as *innovations*. An innovation is a new tradeable, commercially viable invention that is a new means to do old things better or new things first. This innovation might be a new product, service or technology or a combination of more than one of these.

To take this dialogue further and to better describe innovation and innovations, I want to give some words new meanings. As you will see by the time you finish this book, this is something I like to do so that concepts I am describing can become more consciously embedded in readers' mindsets and more easily recalled when they are needed. Here are some of these words:

1 Ways and wares
2 Problem-centred (management initiated) and mission-directed (leadership initiated) innovations.

Ways are social innovations—changes to what we *do* in order to achieve an objective. *Wares* are physical innovations—changes to what we *use* in order to achieve an objective. For example, a water conservation way might involve shortening your shower from six to three minutes, and a water conservation ware might be a new low volume shower head. Together they enable water conservation. Can you imagine other water conservation ways and wares?

Problem-centred innovations are our means to do old tasks better. Examples of problem-centred innovations are of using digital technology to improve the productivity or effectiveness of a current process, or overcoming a problem in the current process: for example, varying a pharmaceutical so it treats an illness with fewer side effects. This is what management refers to as continuous improvement. *Mission-directed* innovations do new tasks previously not done at all or even imagined as possible. They are game changers. The Apollo program, the telephone, television, iPad, Skype, organ transplants and in-vitro fertilisation are all examples of this. The importance of the difference between *problem-centred innovation* and *mission-directed innovation* will become clearer when I discuss shaping the future and the role of management and leadership in this.

Many new innovations (both ways and wares) will have to be created in the next two generations if humanity is to ensure the realisation of Destination 2050. And relatively more of these will also need to be mission-directed innovations. The good thing is that, as I am demonstrating throughout this book, many of them have already been created.

In fact, there are many activities currently operating both above and below the radar that are collectively guiding us towards Destination 2050

and the planetist future. I have already described some of these. This book sets out to make this journey a more conscious one by articulating both the destination and the journey to it. In the terms of Joseph Campbell, author of *The Hero with a Thousand Faces*, this journey is a mythological narrative that tells the story of the journey of the whole of humanity.

Much of this book from hereon will focus on and detail the ways and wares that are already being created and that will be created to enable us to reach Destination 2050. I want to commence this detailing of our journey to 2050 by describing one aspect of our shared future, the creation of a planetary sustainable society.

SUSTAINABLE SOCIETY

As discussed, a sustainable society is a society that has achieved *sustainable prosperity*. It is a society capable of existing indefinitely on Spaceship Earth and it lives by planetist values. A sustainable society is also a progressive and enterprising society, not at all static, and it is one that welcomes constant change. I will describe some of these attributes later when I discuss management and leadership and enterprising cultures.

The creation of sustainable prosperity will require not only public policy initiatives of all kinds but also changes to how we use six key future-shaping tools. These tools are:

1   Leadership: being a *purposeful* future-maker.
2   Management: being a *resilient* future-taker.
3   Planning: applying planning skills such as those used in all the planning professions (which include land use, urban, community, transport, social, financial, industrial and economic planning).
4   Design: using designing skills such as those embedded in design based professions like engineering and architecture and of course all forms of design (such as industrial, systems, fashion and graphic design).
5   Innovation: developing new means (ways and wares) to do old and current things better, and new things first.
6   Learning: increasing our knowledge and capabilities, changing our mindsets and belief systems in order to become more future effective, and expanding our ability to seek and take new options and new pathways to the future.

I will return to describing these six future-shaping tools in more detail later. Now I want to continue to explore the concept of sustainable prosperity by exploring some guiding principles for its creation that can be used by those who utilise these six tools to shape the future. There are great opportunities for innovators, designers and planners, and

also for those who use management, leadership and learning to shape the future. I want to start with a set of design principles that can be used to ensure the Earth's environment is sustained and replenished while we are transforming ourselves towards Destination 2050. These design principles are the principles for creating future ecological prosperity and for eliminating ecological poverty.

PRINCIPLES FOR CREATING ECOLOGICAL PROSPERITY

1 Live within perpetual solar income

Buckminster Fuller first suggested we should learn to live within perpetual solar income in 1969. More than 10,000 times the energy required to meet all our needs arrives daily from the sun as solar energy. Here is just one example of what is possible. Most people when they envisage solar energy systems imagine solar collecting and solar driven devices on land. However, it is in the sea that some of the most promising approaches for harvesting solar energy can be found. Hydropower is actually driven by solar energy. Hydropower is usually used to describe the utilisation of *falling* fresh water, previously uplifted by solar energy as part of the solar/water cycle, to generate electrical energy. However, *horizontal* moving water can also be a huge source of renewable power. In fact, the planet's reserves of perpetual solar-driven horizontal moving water are vast. An example of a means by which we could do this is to utilise solar-driven marine hydropower (ocean currents) which can be complemented by lunar-driven marine hydropower (tidal and wave power). This renewable energy can be converted into electricity and then into hydrogen through water electrolysis. Hydrogen can be piped into homes and industries, and converted JIT (just-in-time) into either thermal energy by burning or into electrical energy via fuel cells.

Imagine solar energy ways and wares.
The only limit is one's imagination.

2 Turn waste into food

William McDonough first suggested in 1999 that we should try to turn all waste into food. In nature there is no such thing as waste because the waste of one species provides the food of another. In the 21st century we should therefore seek not just to reduce waste (a problem-centred strategy

of removing a 'bad') but to abolish waste as a concept (a mission-directed strategy of creating a 'good') by turning all waste into both industrial and natural food so that nothing has to be dumped in landfills or stored indefinitely as toxic waste. The available waste receptacles on Spaceship Earth are filling rapidly and we are being harmed by their continued use. We are used to throwing rubbish 'away', but in fact there are no 'aways' that are not another person's or another species' home. Many organisations and governments now have set goals to create a zero waste future.

Imagine ways and wares to turn waste into food.

3 Avoid or repair collateral damage (zero net harm)

The concept of 'collateral damage', meaning unintended damage caused by a lack of precision where the wrong target is destroyed, originated in the defence sector, but it applies to other industries as well. Some of my work has involved turning this defence concept into a generic concept that can be then introduced into other domains.

In medicine, for example, collateral damage occurs during surgical or other procedures such as with chemotherapy for the treatment of cancer as unwanted side effects. This is unsustainable medicine. Sustainable medicine would involve, for instance, using biosciences such as proteomics to trigger the immune system to overcome cancer or introducing pharmaceuticals into the body that cause zero net collateral damage. Because they act more precisely, vaccines, for example, represent a higher level of sustainable medicine than treatment with pharmaceuticals. Over time all medicine is becoming more sustainable because it is becoming more precise in the way it acts.

In agriculture we use pesticides and they harm many non-target organisms and sometimes people as well. This is unsustainable agriculture. Sustainable agriculture or what is now being called evergreen agriculture would occur when through biological control or gene modification we kill the target organism with zero net collateral damage to non-target organisms, people and the environment.

Sometimes collateral damage cannot be avoided, but if repair, restoration or healing of damage to people and environments can be carried out, then we can say that the overall action/procedure/process is sustainable because there is zero net collateral damage (or zero net harm).

Imagine zero net collateral damage ways and wares.

4 Use resources just-enough-in-place-and-time (JEPT)

I first suggested this as a useful principle to apply more widely in 1998. The concept of just-in-time (JIT) developed in the manufacturing and retail sectors where interdependent supply chains operate to provide needed goods and services just-in-time for their use. This avoids the need for capital being tied up in supply chain stockpiles, and it is therefore more cost effective/efficient.

In many other industrial processes large amounts of inputs are often added in quantities that are temporarily excessive to need, rather than subtly in small amounts just-enough-in-place-and-time. This can cause collateral damage in many ways. In naturally operating ecosystems, energy and nutrients flow through the ecosystem and are available for use just where and when they are needed: that is, just-enough-in-place-and-time. For example, in agriculture, fertilisers are often added to soil during agricultural production in excessive amounts and are washed away by heavy rainfall, both wasting resources and polluting waterways and offshore waters with excessive nutrients. In contrast, sustainable agriculture ensures nutrients are made available to plant roots just where and when they are needed and next to the plant's nutrient uptake root zone, and by biological processes as occurs in natural ecosystems.

> Imagine JEPT ways and ware that create zero net harm as an alternative to where harm is currently resulting from a temporary over-abundance of a material resource, such as a chemical in a particular place-and-time because this resource becomes toxic or environmentally destructive in other ways.

5 Nurture and restore biodiversity and renewable resources

All renewable resources such as water, soil, biodiversity, individual species or whole ecosystems (both those naturally occurring or modified into productive systems such as in agriculture) can be conserved, protected, restored and sustainably managed, in order to maintain or restore ecological prosperity or alleviate ecological poverty. Sustainable use involves using them in ways so that they are never impoverished.

Imagine ways and wares for water conservation, restoration, protection and watershed management, such as:

- Water conservation: maximising the effectiveness and efficiency of water use, such as through minimising water loss and wastage in communities, industry and agriculture; and by creating sufficient storage to ensure water availability in varying climatic conditions
- Water protection: ensuring water is not polluted by toxins and nutrients, and is of the quality required for its intended use
- Water restoration: restoring it to a high quality after its quality is damaged so that it can be reused many times
- Watershed management: ensuring that river and lake catchments, marine estuaries and the like, are holistically managed to maintain their ecological integrity and prosperity over the long term.

Similarly, imagine new ways and wares for soil conservation, protection, restoration or management to maintain or increase fertility or to alleviate infertility.

6 Learn from and/or mimic nature

Leonardo da Vinci said, 'Those who are inspired by a model other than Nature, a mistress above all masters, are labouring in vain.' The biomimicry, biophylia and bioinspiration revolution is just beginning. This involves learning from nature: using biological systems as design templates and modules to construct new technologies and innovations, for developing new means for processing and producing goods and services, and for creating new approaches to organisational management and behaviour.

• **Biomimicry.** Janine Benyus first suggested the use of biomimicry in the book of the same name. She pointed out that the organisms existing today have been thriving for a very long time in the environments in which they live, unlike now extinct animals and plants, and that we should explore and learn from nature's success stories. Biological models are informing many new innovations, such as the burrs that inspired the invention of velcro, or the surface structure of lotus flowers that has led to the creation of self-cleaning windows.

• **Biophilic design and planning.** This concept, which was pioneered by Stephen Kellert, Judith Heerwagen and E.O. Wilson, suggests that we have a fundamental need to be in contact with nature and the natural world and we need to do so for our lives to be fulfilled, productive and happy. I have already mentioned that genes have determined that we are more likely to stay well if we maintain our intimacy with about 15 people and our friendship with 500. We also need to be in touch with an environment that as much as possible mimics the environment in which humanity evolved. Designers and planners therefore need to incorporate natural systems and nature inspired design in homes, offices and other living and workspaces: indeed, into the design of whole human settlements.

• **Bioinspiration.** This word was first coined by Elizabeth Chang to describe a more generic concept to cover these other 'bio-' words and more. An example of Chang's use of bioinspiration is the use of ecosystem structure and behaviour to inform our planning of the next wave of the development of the internet, a concept she calls *digital ecology*. The internet is now being seen as a digital ecosystem and digital ecology is an emerging science. In fact, as the above quote from Leonardo da Vinci shows, bioinspiration is not a new idea. For example, after William Harvey, Court Physician to James I, published his discovery of the circulation of the blood in 1628 Francois de Quesnay, Court Physician to Louis XV, was inspired to develop and publish the theory of economic cycles and establish the Physiocrat School of economics in 1758. And in turn this work greatly influenced the work of Adam Smith in his seminal work, *The Wealth of Nations* (1776).

CREATING SOCIAL PROSPERITY/AVOIDING SOCIAL POVERTY

The second component of sustainable prosperity involves creating social prosperity and avoiding social poverty. Social poverty can be a consequence of the absence of a conscious plan to create social prosperity. Unfortunately, focusing on increasing economic prosperity alone does not guarantee increasing social prosperity. The opposite can be true. That is, increasing economic prosperity can be accompanied by increased social poverty.

In order to increase social prosperity, public policy, management, leadership and learning should seek to create the ways and wares that:

1 Enhance communication between people to enable close and important relationships to be maintained over distance and time
2 Help to initiate, nurture and amicably terminate interdependent relationships
3 Augment social cohesion, opportunity and conviviality in communities
4 Promote economic security through the establishment of 21st century-relevant industrial bases
5 Enable people to imagine and create successful 21st century-relevant life and career pathways
6 Provide universal lifelong, learner-driven, just-in-time learning to improve work and life skills and participation in the realisation of community prosperity
7 Ensure that reciprocity of rights and responsibilities, and negotiated interdependence, are included in all programs to improve social inclusion, opportunity, justice and wellness
8 Protect, nurture and advance the success and inclusion of the vulnerable, disadvantaged and disabled, including through the conscious promotion of advantage and ability
9 Guarantee that the pursuit of individual rights and benefits does not encroach on or limit community rights and benefits.

Many of these will be described in following chapters.

CREATING CULTURAL PROSPERITY/AVOIDING CULTURAL POVERTY

We should not underestimate the influence of the discovery and description of the human genome. The sequencing of the human genome has catalysed a change in our perceptions about human oneness and difference. The reality is that our differences are miniscule, and cultural difference is actually superficial compared with human oneness.

As a global village develops around us, the recognition that we have shared genes, that we are witnessing our increasing interdependence, and that we share a planet and future, is forcing us to recognise that there must be limits to selfishness. We were once cooperative and generous within the

cultural boundary and competitive and selfish across cultural boundaries. We cannot live that way anymore and expect to enjoy the approval of others. In the 21st century we are replacing disrespect of and hostility to difference with corresponding respect and appreciation. We even increasingly love the variety that comes from cultural differentiation. This trend is unstoppable and is a requirement for successful cohabitation in our global village. Although this transformation will take at least another generation to complete, it should be completed by 2050. In the meantime we celebrate difference more and more for it makes us all the more interesting to each other. It is not that culture is becoming less important. What we are doing is redefining what culture should mean as we face these emerging 21st century realities. As I have said earlier in this book, educated middle class Generation Y has already largely embraced this situation. At the Euro 2012 football tournament in Ukraine in June 2012, there were some ugly racist offences committed against non-whites by a coterie of neo-fascist Generations X and Y. Offensive it certainly was, but what is significant is that just about every political leader and many others as well boycotted the tournament, both because of this and because of the incarceration of former Prime Minister Yulia Tymoshenko on what were widely believed to be trumped-up charges. This is planetist global public opinion at work. This example illustrates that while conflict caused by religious or cultural difference is still very present in our global village, what has changed is that collective humanity will not tolerate it anymore. The pressure is growing for us to settle our differences amicably without harming other villagers/ cosmonauts and our global village/Spaceship Earth home. We don't want our still fragile global interdependent society to be blown apart by a few cowboys. So more work and effort is needed in parts of the world where modernism with its values of autocracy, patriarchy and interreligious and intercultural intolerance still hold sway.

Imagine the innovations—the ways and wares—needed for effective conflict resolution and mediation of intolerance/hostility/combat between different religions and cultures. Imagine as well the designs, plans and learning that will be needed to create universal cultural prosperity so no culture can be impoverished by another. These needs will generate many ways and wares that will enter the global markets of the next generation.

CULTURE AND A GLOBAL LANGUAGE

There is an elephant in the room when we discuss cultural diversity and human unity in this way. It is language. If we are to achieve a workable global society we must all be able to communicate effectively with one another. Right now we can't do this. As Arthur Koestler wrote in *Janus: A Summing Up*, 'It seems odd that, except for a few valiant Esperantists, no international body has as yet discovered that the simplest way to promote understanding would be to promote a language that is understood by all'.

In the next twenty-five years the proportion of products and services traded across international boundaries will at least treble. And this is only one of the drivers increasing the need for more effective communication between different cultural groups, including those within new regional groups such as ASEAN and the European Union. It is fascinating that an event such as the Eurovision Song Contest has to be conducted in English, when the UK is so full of Eurosceptics, and is the nation in Europe that is least committed to Europe. The French or Italians do not really warm to an arrangement that facilitates the increased domination of Europe by the English language.

With the emergence of a 21st century planetary society, a global language problem has emerged. So far the magnitude of the problem is not widely recognised and rarely ever even discussed, possibly because there is a low expectation that there could ever be really effective communication between peoples and cultures, possibly because it just looks too hard. As global interdependence, trade and travel increase, these problems worsen every year. They are regarded as a normal and unavoidable consequence of trade and travel, but are they unavoidable? Any rational person would come to the conclusion that the birth of a planetary culture requires us to solve the difficulty of language communication by finding a planetary wide solution equally acceptable and available to all, a win-win solution for all, and at a price humanity can afford.

The choice the world needs to make is whether this global language should be an existing national language that is given a new global job to do or a new language designed specifically for the purpose. There are many who believe that the world has already 'decided' and that the international lingua franca should be (or will be) English. It is clear that English is showing signs of establishing itself as a world lingua franca and is favoured as the priority language for people to learn if they want to be effective on the international stage. But if a national language such as English becomes a universal lingua franca, will this lead to cultural imperialism by the English-speaking world? The French certainly think so. They have taken steps to protect French language and culture from the cultural imperialism they believe is associated with the English-speaking world by attempting to ban the importation of English words into the French language. The dominance of English is a direct consequence of the economic power of the English-speaking world and the leading role the English-speaking world has played in technological innovation over the past fifty years. It is also a result of British colonisation, which resulted in a large number of people throughout the world speaking English. More generally, cultural imperialism will ride (or at least be seen to ride) on the coattail of the use of any national language that is upgraded to do global duties.
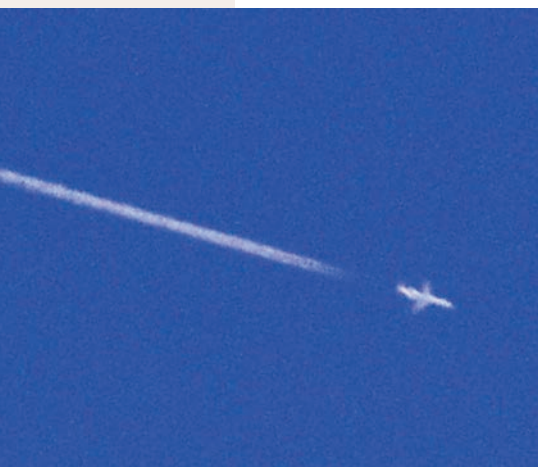
A Pole, Ludovic Zamenhof, created Esperanto about 110 years ago intending it to be an international language that would promote the development of internationalist values. He spoke twelve languages and created an artificial language containing the best elements of each. Yes, it is artificial but, as the American linguist and Esperantist Mario Pei says, 'it is an artificial language just as a motor vehicle is an artificial horse'. Esperanto has a mixture of linguistic roots derived from Romantic, Germanic and Slavic languages so it will be widely accepted as a trans-European language. Some of its strongest adherents are Esperanto clubs in Poland, Hungary and Bulgaria, so the accession of eastern European countries into the EC will improve its visibility across Europe.

Interestingly, China and the Republic of Korea have strong Esperanto movements and these cultures find Esperanto very easy to learn. Most people can use it effectively after studying it for six months to a year. Esperanto does not threaten any culture as would English or any other national language if it were officially adopted as an international lingua franca. It would solve the problem of international communication in a practical, low-cost and culturally non-threatening way.

Meanwhile, the global market has apparently chosen English by default as a global lingua franca. It does nothing about the problem and apparently believes that the Anglicisation—or perhaps more accurately the Hollywoodisation—of the planet is unstoppable. The global reach of the US is still huge even as it is relatively declining, and digital technology and the mass media have certainly promoted the spread of English. However, we should remember as we watch the rise of China in the early 21st century that there are more people who speak Mandarin than speak English, and that Spanish rivals English as either the second or third most spoken language on the planet, with Bengali fast catching up. What would happen if the Chinese use their new global political power to promote Mandarin as a global language? Or if all the Spanish speaking peoples collectively insisted on Spanish?

It would be so much better if a global conversation could commence now about the issue of a global language so that the world could make a clear collective decision about how we should proceed to fix this emerging communication problem without it being made by a combination of default and lack of interest. World cultural prosperity would be greater if the world adopted a universal second language that is both easy to learn and does not belong to any national culture. Some cultural impoverishment will clearly result if an upgraded national language is used for the same purpose. With a universal second language everybody and every culture would be on the same footing. We will soon reach a tipping point where the world will finally be forced to recognise that the issue of language and the need for effective planetary wide communication can no longer be swept under the carpet in the halls of international dialogue.

HARMONY AND DEMOCRACY FOR DESTINATION 2050

Democracy has spread from just ten nations post World War II to over 130 in the early 21st century. The steady increase of intercultural and inter-religious tolerance and harmony has been accompanied by the global growth of democratic institutions. There is still a way to go before we could say the world is a harmonious place. However, the process of achieving such a state is progressing. There are good reasons to be positive that this will be realised by 2050 if not earlier.

The remaining autocratic governments are mostly under siege. The brutality shown by some Arabic autocrats in the Arab Spring is a testimony to their desperation. Many Arabic countries have already reached the democracy tipping point and in the next five years the rest will follow. In Arabic countries and elsewhere autocrats are being challenged by movements largely of educated youth with a global outlook, who support intercultural and interreligious harmony, have digital connectivity and planetist values and are receiving the support of global public opinion. Of course there are some Islamic fundamentalists seeking to use this period of revolutionary fervour to seize power for themselves. However there are also Islamic moderates—more cosmonaut in their outlook—who are likely to govern with the support of secular cosmonauts or cosmonaut Christians and other religious groups, if just to keep the Islamic extremists out.

What is certain is that any attempted hijacking of the Arab Spring or other democratic movements by religious fundamentalists will be strongly opposed by global public opinion, which would quickly return these nations to pariah status. It will be the Islamic democracies such as Turkey or Indonesia who will more likely provide the inspirational model for the future of democracy in Arabic nations. And despite the claims of some Muslim extremists that democracy is not Islamic a huge number of Muslims in fact already live in two pluralistic democracies—Indonesia and India.

I have already described how a military autocracy like Burma (Myanmar) has stopped oppressing its own minorities and is tentatively embracing democracy because it no longer wants to remain isolated from the rest of humanity as a global pariah. Such is the emerging power of global public opinion and of interdependence punishments.
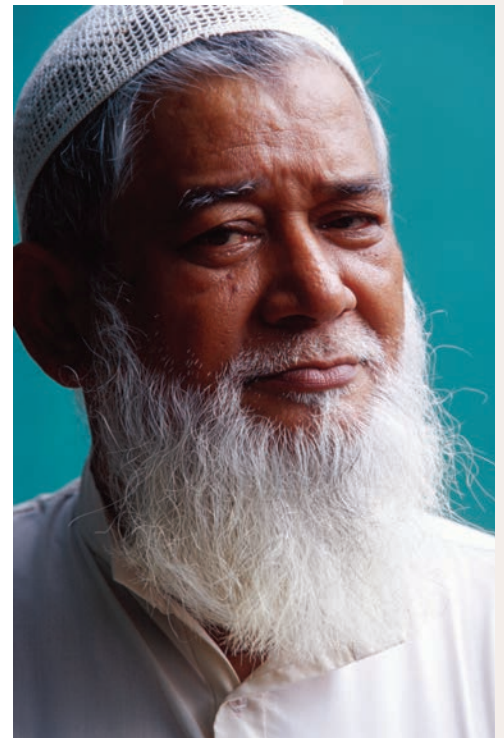
It is important to note that it is autocratic governments that oppress those who are culturally different. Syria and Burma are just two examples of this. In fact it is difficult to conceive of an autocratic government that is successfully multicultural and multi-religious. To achieve this, democracy is necessary.

So to sum up: educated, middle class people—the emerging planetist majority and the primary shapers of global markets—are demanding that 21st century markets supply ways and wares that:

1   Realise and engender intercultural and interreligious tolerance, respect and harmony
2   Mitigate intolerance, disrespect and hostility while punishing the autocratic and fundamentalist rogues who promote them
3   Nurture cultural prosperity and use it to generate economic prosperity, e.g. cultural tourism, culturally based design, world music and world food precincts
4   Create global and national arrangements to alleviate actions that impoverish culture.

The realisation of intercultural and interreligious tolerance, harmony and peace will require many new ways and wares.

Imagine ways and wares that supply world markets with:

- Free and fair elections
- Democratic institutions
- Transparency in governance.

Conflict resolution, peace building and democracy building are industrial futures that will flower in the early to mid 21st century. There is a role for conflict resolution, mediation and peace building elders in this industry, one of many possible roles for elders. Jimmy Carter has pioneered peace building elderhood and this role has brought him more respect than was the case in his previous role of US President. Many other nations have their equivalents, including Australia's former Prime Minister Malcolm Fraser.

I have worked with people responsible for conducting elections in Australia and New Zealand. I have pointed out to them that as two nations that got to the future first in terms of democracy they could become world leaders in the production and export of various democracy ways and wares. These could include exporting free and fair election ways and wares to newly arriving democracies such as those in the Arab Spring, where there is little history or experience in conducting free and fair elections.
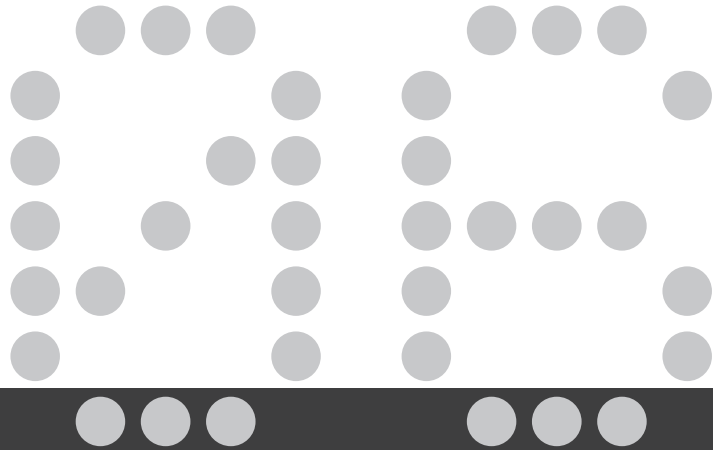
Imagine

- The nature and role of the emerging mediation, conflict resolution and peace building industry and the ways and wares they might produce and market.
- The ways and wares and capacities and capabilities that will be required to realise a peaceful and harmonious planetary society.
- Democracy ways and wares.
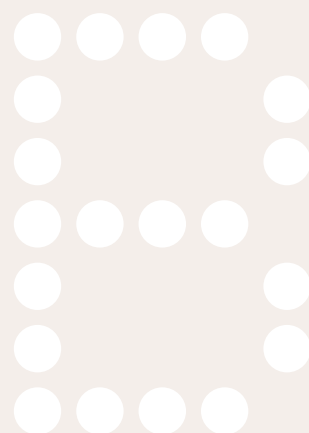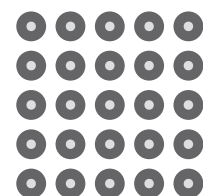
TOOLKITS

Shaping the future:
six tools, six futures

N THE FIRST PARAGRAPH OF THIS BOOK I said that one of the two things we do all the time is that we seek to shape the future. I have already dealt with the other key process we do all the time, which is initiating, nurturing and amicably terminating interdependent relationships. Now I want to describe my toolkit for shaping futures—personal, organisational and global futures. Although the trends shaping the 21st century are already taking us towards Destination 2050, if prosperity, sustainability, security, harmony and justice are to be universalised and maximised, we should become more effective shapers of the future and not just rely on these trends to take us there. In doing this we can both work to advance the arrival of key tipping points by creating and marketing the ways and wares for realising this destination and by doing so prospering by getting to the future first.

Humanity has always sought to understand the past and present and to predict and shape the future, and it has used many different knowledge domains (religion, fictional narratives, myths, rituals, science and history) as a means of doing this. We are all interested in shaping our lives for future success and making our future society a better place for our children and their children to live in. Even militants of all kinds are trying to create the future they want even if this future delivers danger and suffering for those who are different from them. Indeed, it is important to recognise that virtually all conflict is driven by conflicting aspirations for the future and different perspectives on how we might best shape the future.

When we initiate a relationship, buy a house or plan an afternoon or a holiday we are shaping the future. Many of our conversations involve what decision we should make to shape the future to fulfil our aspirations. The matter might be trivial or profound, soon or some time off. However, we bring to these dialogues a concepts bank and toolkit that is a product of what we know and how we think. Our success in life will be significantly determined by the quality of this concepts bank and toolkit in each of us. All of us can also learn to become more effective shapers of the future. And surely one ability we all should have is to be the best we can be in doing this. So in what follows I provide some concepts and toolkits for becoming effective shapers of the future.

We shape it through the following six core tools, which I've already listed but will repeat and expand below:

1 **Leadership:** being a *purposeful* future-maker.
2 **Management:** being a *resilient* future-taker.
3 **Planning:** applying planning skills such as those used in all the planning professions (which include land use, urban, community, transport, social, financial, industrial and economic planning).
4 **Design:** using designing skills such as those embedded in design based professions such as engineering, architecture, and of course all forms of design (industrial, systems, fashion and graphic design).

5   **Innovation:** developing new means (ways and wares) to do old and current things better, and new things first.

6   **Learning:** increasing our knowledge and capabilities, changing our mindsets and belief systems in order to become more future effective, and expanding our capability to seek and take new options and new pathways to the future.

We can most effectively shape the future if we use all six of these tools in combination in an integrated strategy to realise a vision. Those who are primarily planners, for example, should recognise the importance of, and be prepared to use, the other future-shaping tools—and therefore they should try to grow their capabilities in design, management, leadership, innovation and learning as well in maximising their effectiveness as planners. As a former public sector CEO who for two decades was responsible for designing and implementing public policy and programs, I observed that different government organisations dominated by different professional cultures, when asked by government to collaborate to create a shared future often produced collective results that disappointed each of them. A government department dominated by engineers would think about and seek to shape the future differently from a department full of planners, economists or architects. The results could be described as antagonistic (2+2=3) rather than synergistic (2+2=5). I can even remember one time when antagonism resulting from conflicting rigid professional mindsets about shaping the future produced what was a zero sum game (2+2=0). My own learning was to understand that all of these tools and the professions that use each of them actually have a common purpose—and that is to shape the future.

In the remainder of this chapter and in the next I will be linking vision, justice, future shaping, and management and leadership in a number of different ways.

VISITING THE PARENT AND LEGACY MAKER WITHIN YOU

One way of using the core processes of leadership, management, planning, design, innovation and learning for long-term success (i.e. success one and two generations hence) is to bring the parent-in-you to these processes. Any vision has both intragenerational and intergenerational components. Intragenerational justice is already a major part of most public policy frameworks, but intergenerational justice rarely receives the same level of consideration. However, vision making and planning, in fact virtually all public policy, is actually at least as much about fulfilling the needs of and delivering success and justice to future generations as it is about doing the same to present generations.

This idea of intergenerational justice becomes much easier to conceptualise if we can visit the parent and grandparent within each of

us. Our grandchildren (or our grandnieces and nephews) are for most of us people we will actually know and whose future we want to help shape in a positive way. My one-line job description of a parent is one who works for a generation to create a successful adult. The parent in each of us is an intergenerational shaper of the future. So if we think about shaping the future as parents or as grandparents we can visualise an intergenerational time horizon that is both real and important to us. To become an effective long-term thinker and actor we just need to find and regularly use the parent/grandparent within each of us.

My definition of a worthwhile life is one that leaves a legacy to our children and grandchildren and their generation that is better than the one we inherited from our parents and their generation. Many big issues in our lives have both intragenerational and intergenerational components. Climate change, for example, involves taking actions today to ensure positive outcomes for future generations. Almost all of us would be concerned about leaving a future to our children that is less climate-safe than the one we inherited from our parents. When I talk with climate change deniers and sceptics I ask them first if they have children and try to establish a conversation based on intergenerational justice, not just intragenerational justice. Often there emerges a quiet moment when they are forced to confront their own intergenerational selfishness. This is why the issue of climate change is a moral as well as an environmental and economic issue. Not recognising this is a denial of the parent and the legacy maker in each of us. The hard part of dealing with climate change is seeking to ensure that it is a win-win outcome in both intragenerational and intergenerational terms, and this is not an easy thing to achieve. Most conflict around this issue centres on intragenerational vested interests resenting concessions being given to intergenerational vested interests. And this conflict between generations is at the centre of many similar disputes. The reader will probably recognise other specific examples of this generic reality.

VISION AND PROPHECY: THE BUILDING BLOCKS OF FUTURISM

I have always thought that formal future-shaping processes should mimic the way people actually seek to shape the future. And this means that both the prophet in each of us and the visionary in each of us should be integrated into our future-shaping toolkits. Just as memory is largely our

pathway to the past, imagination is largely our pathway to the future. We use some of each in both our contemplations about the past and the future, but the past is mostly memory and the future is mostly imagination. We naturally use imagination more than memory when we contemplate the future. However, in the minds of many professional futurists, memory actually dominates imagination in their mental toolkits. This is because they tend to think that prophecy—prediction—is more important than vision in shaping the future. And this in turn is because they have the view that any real and documented past event recalled by memory is more scientific and 'real'—and therefore a more important route to understanding the future—than an imagined future event.

Prediction or prophecy is largely memory based, for it mostly involves predicting a return in the future of events we have experienced before and which are planted in our memory banks. Prediction rarely articulates an event that has never happened before and that is a product of our pure imagination. This is a view that I do not share for it is only part of the mental toolkit humanity has developed to shape the future over its evolutionary history. This mental toolkit utilises both prophecy and vision.

Many of those who are involved in futures work have gone to considerable lengths to separate prophecy and vision as if they were incompatible in a single framework. Some futurists use the word 'foresight' to describe their professional discipline. Many avoid using the word 'vision' completely. Others avoid using the word 'futurist' altogether because they describe themselves as being involved in different but complementary disciplines, such as 'scenario planner and visionary'.

This is a mistake, and this thinking has actually limited the future prospects of futurism. During the time I have worked as a futurist I often asked corporate and organisation leaders and managers if they have ever used futurists or some of their processes such as alternative scenario planning to inform their shaping the future activities. Most said no. Most thought futurism in the form it is practised by most futurists was pretty irrelevant to their work. When asked why, they usually tell me that such futurist processes are not compatible with the means we normally use to consider and try to shape the future. They see futurism as a predominately academic pursuit that is an artificial adjunct to their thinking and not a natural component of it. If there has been one thing that has motivated and guided my work over twenty-five years it has been that I wanted to develop future-shaping processes compatible with the way people naturally contemplate and seek to shape the future. Although the balance between the quantum of use of prophecy and vision will differ with different people, the fact is that we naturally use both prophecy and vision as partners in our future-shaping toolkits. And after I had better understood how we naturally shape the future, I then wanted to work to develop an improved version of this natural process, so that we all could become more effective shapers of the future.

It is important to remember that when everything seems lost the future remains. Irrespective of past and present successes and failures and the damage resulting from past trauma, the future remains a space open to hope, vision, initiative and purposeful action. The only limitations to this come from continuing to carry the mental and emotional baggage and scars that we bring with us from the past. An improved futurists toolkit that mimics the way people naturally seek to shape the future could make an immense contribution to turning around lives and organisations and be adopted more widely not only by people who see the glass as half-full but also by those who see the glass as completely empty. The market for a 21st century futurism that incorporates such mental toolkits could be immense.

But to do this futurism will have to integrate vision and prophecy as equal partners in its shaping-the-future mental toolkits. We should remember that we all share a future and are interested in shaping the future. However, a futurism that eschews vision as an equal partner to prophecy will continue to be marginalised because it will be seen as only of limited value.

PREPARING ONESELF TO BE AN EFFECTIVE SHAPER OF THE FUTURE

As we look ahead to shape the future over one or even two generations by using the six future-shaping tools, we also must look inwards in order to ensure we have endowed ourselves with the core capabilities required to do this task well. Here are some of the core capabilities and concepts we should embody in ourselves so that we can use these six tools most effectively:

1 Be both a resilient future-taker (*manager*-of-self) and a purposeful future-maker (*leader*-of-self). This will be discussed shortly.
2 Shape our life and career path through clarifying and consciously choosing our destiny (via insight); through charting appropriate work and life destinations (via foresight); and by examining and learning from one's past (hindsight). This will also be discussed further in the next chapter.
3 Embody the values of planetism.
4 Foster the ability to initiate, nurture and amicably terminate specific interdependent relationships.
5 Practise lifelong, learner-driven, just-in-time and collaborative learning. This will be discussed in Chapter 8.
6 Commit ourselves to continuous innovation—seeking to create *ways and wares* for doing both old things better and new things first.
7 Work for both intragenerational justice (present social inclusion) and intergenerational justice (future social inclusion), thereby avoiding or eliminating Mandela's 'islands of plenty in seas of poverty'.

SIX FUTURE QUESTIONS AND THE SIX FUTURES

Most of the time when we seek to shape the future we commence with a question. And the question we ask very much determines what we do and how we act when we shape the future. There are key six questions we might ask:

1 What might be the future?
What plausible events could shape our future?

Answering this question generates what I call a plausible prediction. A whole series of *plausible predictions*, different *plausible futures*, limited only by our capacity to brainstorm, can be made. Each *plausible prediction* will assume different drivers of change. Here we look out and try to understand some of the future events that might happen. These *plausible predictions* are based solely on externally initiated change, not on change initiated by us. They help us to become more aware of what threats or opportunities might challenge us in the future and what we might do to most effectively prepare for these. In this process we aim to put ourselves in a future successful position, to be *resilient future-takers* if we perceive the plausible future as a threat and *purposeful future-makers* if we see the plausible future as an opportunity. We can also predict the *plausible pathways* by which each of these events might unfold.

2 I am concerned about a particular future changing event.
How can I best prepare myself for this future?

Sometimes we are preoccupied by a *particular future* event—a *particular prediction*—over and above all other *plausible future* events—*plausible predictions*. If we are concerned that a *particular prediction* as a particular event, threat or opportunity might occur, we might then seek to examine the different means or scenarios—the *particular pathways*—that might realise this *particular future*. This approach is often used in security and defence scenarios, and it is used in risk analysis more generally. Here our preoccupation will be on initiating intelligence, surveillance and vigilance structures, and on the development of future resilience against potential threats and preparing to make the most of potential opportunities that might result from a particular pathway.

3 What will be the future? Where are we currently headed?

The *probable future*—our *probable prediction*—will be the consequence if we carry on with business as usual and assume that there will be no significant externally driven changes to the environment in which we are operating. If we are not doing well at the moment, the *probable prediction* (*the probable future*)—the generic equivalent of the medical *prognosis*—will most likely be one of slow decline and failure. If we are currently thriving and expect to continue doing so the *probable prediction* might be of a marvellous *probable*

future. As with any prediction there might be a level of uncertainty as well and we might need to examine more than one probable prediction. However, the number of these is likely to be small because here we are assuming virtually unchanging circumstances. If we need to consider changing circumstances we need to consider the next future: *prospective futures.*

4　What will be the future with changed circumstances?

We might be required to prepare for a different destination while we are on our journey to a *probable future* because environmental conditions have altered or are highly likely to alter. One or more external or internal changes might arise and require us to review our *probable prediction* and recognise that we are now proceeding to a new destination to what I call a *prospective future.* This might be a *prospective prediction* that is a better outcome—a better *prospective future.* Or the changes might dampen our prospects and result in a *prospective future*—a *prospective prediction*—that is grimmer than the previous probable prediction. The *prospective pathway* is a descriptor of the new course charted after the change, in contrast to the *probable pathway*, which is where we were headed before circumstances changed.

5　What should be the future? What future do I want to realise? What future is my aspiration?

We can visualise a *preferred future*—envision a *preferred prospect*: an aspiration, vision or dream we actually want to achieve—and *then* set out to realise it through strategic action. Our popular and classical literature is full of narratives about having dreams and setting out to fulfil them, of making them come true. Vision of this kind inspires, motivates and shapes the actions of every artist and every entrepreneur, and many scientists, architects and engineers as well. The journey to realise a *preferred future* can be described as *preferred pathways.*

6　What future could we realistically realise?

While our aspirations are still to realise a *preferred future*, subsequent events can limit our ability to realise this destination and make achieving it difficult and even impossible, at least in current circumstances. This might be because conditions have now changed or we do not yet have the resources, knowledge and capabilities available to realise our *preferred future* vision. Then we might have to downsize our aspirations temporarily, to seek a *possible future*—envision a *possible prospect*—a future that is on the way to our *preferred future* that is the best we can achieve for now. We will now follow a *possible pathway.* Of course, sometimes the opposite can happen once we commit ourselves to realising a *preferred future.* Happenstance, providence and unexpected opportunity can enable the journey to be completed quicker, easier and at less cost, and even transform our journey down a *possible pathway* back to the *preferred pathway.*

Plausible, particular, prospective and *probable futures* are the four means we seek to shape the future through *prophecy*. *Preferred* and *possible futures* are the two means we seek to shape the future through *vision*. The first four futures are part of the future-shaping toolkit of the manager in each of us. The last two futures are part of the future-shaping toolkit of the leader in each of us. The answers to the first four questions are *predictions* based on the logical extrapolations of current trends and knowledge of what has happened in the past, so I group them as *prophecy*. These approaches ignore the fact that the best way to shape the future is to create it: that is, to imagine a *preferred* future and purposefully set out to realise it. When we seek to fulfil our aspirations we actually do everything twice: first when we imagine it and the second time when we do it. So this is something all of us do naturally. All of us should be conscious of the balance between the four prophecy-based questions and the two vision-based questions, and the relative frequency we ask questions in each of these question groups. Too many people tip the balance between these two groups towards the prophecy-based questions in their working environment even if they have a healthy balance between them at home. As I will show shortly, this balance distinguishes the balance between the manager and leader in each of us. It has been my observation that many of us should ask the vision-based questions more often and apply them to many more aspects of our life and work than we generally do.

Many futurists are concerned about this process of asking questions based on embedding one's aspirational goals or values in a process to shape the future. They believe that a subjective or normative process should not be embraced by futurism. As discussed earlier, some futurists believe that if futurism is to be regarded as a science it should be objective: that vision based on wish lists is not a legitimate role of futurism. As one originally educated as a scientist (a biochemist) I disagree. The scientific method does not rule out imagination. Every worthwhile scientific hypothesis is an imagined reality. It might not be an aspirational dream but it is an imagined reality that is aspirational, for it informs and motivates subsequent action: it is subsequently tested by experiment and it persists in playing this role until it is either confirmed or overturned or modified by evidence. Imagination is our most powerful process to steer us into new directions. A vision of, and a perceived journey to achieving, a *preferred future* will inspire and motivate greater creativity, commitment and energy than simply seeking to achieve a somewhat improved *probable future* destination. Think about the relative commitment you might make to realise an improved probable future, say plus 10%, or a *probable future* destination minus a few negatives, a future that is somewhat less awful.
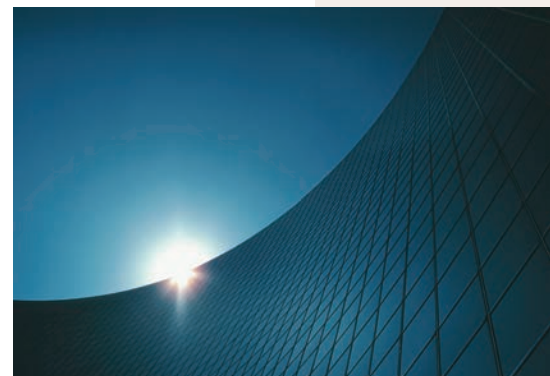
Making a future a little better or a little less bad is hardly the stuff of heroic deeds and we are unlikely to put our hearts and souls into achieving this. The process might be somewhat less risky, but who wants to give their best where the proposed outcome is dominated by modest improvement plus the minimisation and avoidance of risk? The prognosis of this approach to shaping the future will be mediocrity.

A THINKING TOOLKIT FOR INTEGRATING THE SIX FUTURES

Here is one way to integrate these six futures into a single framework. First, imagine and describe a *preferred future* destination you aspire to and would like to realise through strategic action. Then explore:

1 What will be your *probable prediction* (*probable future destination*) if you don't change direction and you continue with your current journey?

2 What are the changed circumstances (plausible predictions) that might drive you off course from a *probable future* into a number of *prospective futures* and what might be these *prospective predictions* and *pathways*?

3 Are there any *particular predictions*, *threats* or *opportunities* that require more intelligence, surveillance and vigilance followed by strategic actions to ensure you become a *resilient future-taker* if there is a threat or a *purposeful future-maker* if there is an opportunity?

4 If you change course from a *probable future* to a *preferred future*, what *preferred pathway* would you chart and what strategy should you adopt to change from your *probable* or *prospective pathway* to your *preferred pathway*?

5 Are there are any external environmental changes and limitations or internal limitations such as a lack of resources, skills or knowledge (which we can anticipate as *plausible predictions*) that might necessitate changing course to a *possible future*? What is this *possible prospect*?

6 If this is the case, what is the best destination that can be realised under current circumstances? And what is your *possible pathway* to reaching this destination?

A table summarising these six futures is below. All of these 'futures' can be used to assist us become more resilient future-takers and more purposeful future-makers.

Future question	Future	Search process	Strategic action descriptor	Future-shaping tools influenced
What might be the future? What plausible events could shape our future?	Plausible future, plausible prediction	Prophecy	Plausible pathways	Management, design, planning innovation, learning
I am concerned about a particular future changing event. How can I best prepare for this future?	Particular future, particular prediction	Prophecy	Particular pathways	Management, design, planning innovation, learning
What will be the future? Where are we currently headed?	Probable future, probable prediction	Prophecy	Probable pathways	Management, design, planning innovation, learning
What will be the future with changed circumstances?	Prospective future, prospective prediction	Prophecy	Prospective pathways	Management, design, planning innovation, learning
What should be the future? What future do I want to realise? What future is my aspiration?	Preferred future, preferred prospect	Vision	Preferred pathways	Leadership, design, planning innovation, learning
What future could we realistically achieve?	Possible future, possible prospect	Vision	Possible pathways	Leadership, design, planning innovation, learning

AN EXERCISE

Imagine yourself skippering a sailing boat in a three-knot tide and a six-knot wind.

The current and the wind are metaphors for the sum of the forces, both drivers and impediments, currently taking you to the *probable future* if you do not choose a *preferred future* for yourself. These drivers and impediments may include: market demand, competition, finance and investment availability and limitations, relationship commitments, economic crises, laws and regulations, illness, skills shortages and resource limitations.

If you leave the sail down or keep your hand off the tiller and just continue on in this way where will the wind and tide take you? You are then choosing not to do anything different from what you are doing: you are not choosing and charting a course to a *preferred future* destination. This means you are surrendering your fate to where the current and the wind are taking you: to a *probable future* destination. However, because both wind and tide can change direction and speed, the destination and journey might shift from the one you first anticipated to a new destination—a *prospective future*. If you do choose to drift with the current and the wind remember

you will be more likely to finish on the rocks than reach any place in your dreams.

Most sailors get into a sailing boat with a purpose in mind: a preferred future such as winning a race, or going to an island for a picnic. In this case, imagine you want to win a race. Your aim will be to position yourself on the windward side of the fleet—winning means getting to the future first. The changing circumstances encountered during the race, such as the actions of other competitors and shifting weather patterns (which often can be anticipated as different plausible predictions) will play their part in deciding the outcome.

But whether favourable or unfavourable, changing circumstances will affect us differently depending upon our mindsets and our degree of preparation. We are biologically programmed to fear and protect ourselves from change. To Palaeolithic humanity change tended to mean threats: floods, droughts, epidemics, wars and natural disasters. We are genetically programmed to see all change as a threat and to be *future-takers*. A current example of this tendency in management culture is reflected in the term *future proofing*. The concept is *supposed* to include anticipating and taking advantage of unexpected opportunities, but the use of the word 'proof' implies that we perceive all change and the future itself as a potential threat. It emphasises fear of, and making yourself resilient to, change. It only considers prophecy and reacting to it—something that happens to you. *Future proofing* emphasises the need for more intelligence, surveillance and vigilance. It disregards developing a vision and realising it—something you might seek to make happen.

The wind shifts faced by a sailor will come and go. Some will be threats but many will be opportunities. However, if the sailor has already decided to chart a course to a preferred future destination it becomes clear which wind shift will be an opportunity and which a threat. But if we ignore vision and let our genes take over, any wind shift will be perceived to be an ill wind shift to a sailor who has no course.

CHARTING JOURNEYS: THE THREE SIGHTS

I have just discussed the six future questions that are one part of our toolkit for creating future success. Next I want to describe how we can become more effective shapers of the future through the use of insight, foresight and hindsight. Before charting a journey to the future, you should first conduct dialogues with yourself, with those close to you (who may include mentors and counsellors) and with your co-venturers. Here are three of these dialogues:

1 Destiny dialogue

This process requires *insight*. Destiny is a combination of two things, your aptitude (what you are good at) and your passion (what you love doing). When young people consult me about what course they should take at university, or what kinds of jobs will be available when they are mid-career, I reply that it doesn't matter what they study. For most people it will bear little relationship to what they will do when they are mid-career, for jobs will have changed unrecognisably. The majority of the job categories and products and services that will exist in twenty-five years time have yet to be invented. So the most effective way to develop your career is first to look inside yourself and discover your destiny, and then seek to build your career around it. As Henry Ford said, 'The secret to a successful life is to understand what is one's destiny to do and do it.'

Destiny = aptitude + passion

2 Destination dialogue

This process requires *foresight*, and requires you to decide your destination. You need to ask, what possibilities and opportunities are emerging that best fit my destiny? And what should be my preferred future/possible future destinations for my life path and career path? The emerging planetist marketplace will provide many new opportunities. From our understanding of planetist values we can also predict the ways and wares (the combined emerging products, services and technologies) that will be both sought and developed in the next two generations, and map the emerging career paths that could be built around the creation of these planetist ways and wares.

3 Derivation dialogue

This process requires *hindsight* and involves treasuring and learning from your experiences. There are two elements you bring with you from your past that really matter and are relevant for creating future success:

- **Heritage:** the priceless aspects of one's past which should be kept, treasured and nurtured, to ensure that making changes doesn't result in throwing out babies with bathwater; and
- **Baggage:** bad habits and negative attitudes and perceptions accumulated from one's past experiences which, if they are not recognised and jettisoned, prevent one from becoming an effective transformer-of-self for future success.

I refer to destiny dialogues plus destination dialogues plus derivation dialogues collectively as the 3 Sights or the 3Ds of futures exploration.

MORE ON INSIGHT AND DESTINY

The leader-of-self can use insight and destiny dialogues to:

1   Understand what one's special gifts are and one's calling is
2   Facilitate career path and life path planning.

List those things you are good and bad at doing, and those things you love and hate doing. An examination of these four lists will assist you to decide on your destiny, something you can review on a regular basis over time. It is best to conduct this destiny dialogue in the company of those who love you and who know you well. They will often have insights about you that you yourself do not see. Then take the next step and try to define your destiny using just two words, an adjective plus a noun: for example, social entrepreneur, innovations broker, intercultural conciliator, security guardian, relationships facilitator, habitat designer, wellness practitioner. When you describe yourself to others in this way when they ask *what do you do*, you will stimulate curiosity and kindle energetic and often enlightening conversations. When you frame your destiny thus it is amazing how creative your mind can become as you imagine and create career path substance around this two-word descriptor of your career path future.

Following your destiny defines your work, which is doing what gives meaning to your life. Success goes to those who turn their work into an activity they earn income from. This process can apply equally to charter the future of individuals, organisations, nations, communities and regions.

Imagine the following people undertaking destiny dialogues:

- Prisoners as they prepare for a post-prison career
- Refugees entering a new homeland
- Retirees seeking new post-work pathways
- People contemplating a career change or facing retrenchment
- Young people when they are planning career and personal development pathways
- All people facing new circumstances where old pathways have closed off because of accidents, traumas, or severe or chronic illnesses.

What other similar categories of people could benefit from conducting destiny dialogues? The implications for improving social inclusion through the use of destiny dialogues and the 3 Sights/3Ds more generally could be considerable.

Two additional dialogues can be added to the 3 Sights/3Ds to turn the outcome of the 3Ds of futures exploration into an action program to realise one's preferred future/possible future destination.

4   Directions dialogue

A strategic action planning dialogue relating to planning and charting the mission before its commencement. This can apply to the development of a personal life or career path, a new direction/purpose for an organisation or the transformation of organisations or communities.

5   Director's dialogue

This is an operational command dialogue facilitated by the leader (my discussion on leadership is in the next chapter) while the mission is under way. It involves deciding, reviewing, altering and implementing strategic actions to ensure the successful completion of the mission. This is needed to rechart *probable futures* into *prospective futures*, and *preferred futures* into *possible futures*. Again this process can be applicable to individuals, organisations and nations.

When I add these two dialogues to the previous 3Ds of futures exploration, I create an envisioning and strategic action program for personal and organisational future making. I call this whole process the 5Ds of future making. I will discuss shortly the 6Vs that can be used to guide both Directions and Director's dialogues.

07
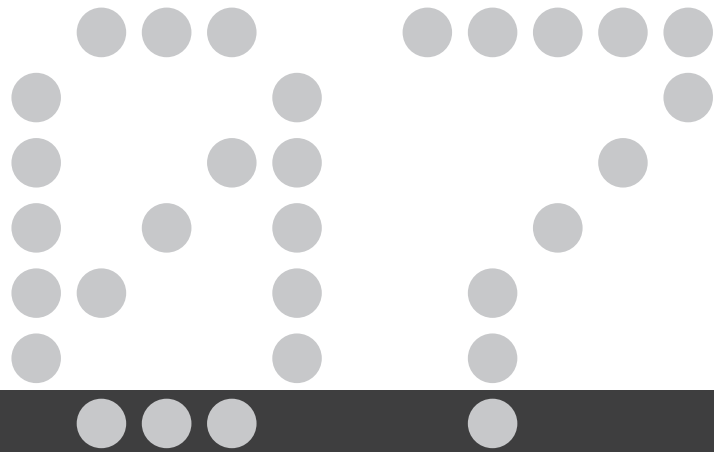
Future taking and future making:
management and leadership
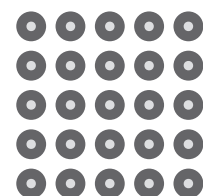
THE PROPHET AND THE VISIONARY

HAVE ALREADY DESCRIBED the six futures and the six questions that initiate our access to these futures. I have also described the six tools we use to shape the future. I now want to explore engaging our inner futurist to shape the future in terms of two of these six tools: management and leadership—of both self and other. Our inner futurist is both:

1 The prophet who asks what *will be* the future? This component is the trend analyst, the manager part of us and the probable futurist in us.
2 The visionary who asks what *should* or *could be* the future? This component is an imaginer of and dreamer about the future, the leader part of us and the preferred futurist in us.

The difference between these two parts of our inner futurist was expressed well by the serpent in George Bernard Shaw's play *Back To Methuselah*: 'You see things; and you say, "Why?" But I dream things that never were; and I say, "Why not?"'

There are some important differences between the mindsets of our inner prophet and our internal visionary that involve the different roles of memory and imagination. Broadly speaking, memory is our mental route to the past (though it should be noted that at least some of this mental route is in fact imagined, which is why two people can witness the same event and have a different recollection of it). Imagination is our mental route to the future. However, when we predict the future we tend to look forward while simultaneously looking in the rear vision mirror: we actually use our memory and probabilistic prediction rather than our imagination. Unlike Shaw's serpent we don't describe something new that has never happened before but seek instead to predict events based on a return of something we have previously experienced. We cast our minds back to similar economic events or military/political events, just as when we seek to predict the winner of a horse race we look at the horse's past and present form and how it performed in similar conditions. These processes use cerebral left-brain logic, and those who are most comfortable using those thinking processes prefer to use such logic to predict what might happen in the future. And of course they're often right. As George Santayana said, 'Those who cannot remember the past are condemned to repeat it.' If we don't analyse and learn from our mistakes we will repeat them.

However, the people who make a bigger difference in terms of shaping the future are the visionaries, not the prophets. Logic can carry us only so far. When we envision the future we do something totally different from what we do as prophets—we use our imagination. We become emotionally uplifted by our visions of the future and about the prospects of realising such a future, and then we are inspired to create a strategy to realise our vision.

Here we use the cerebral right brain and envision what could be and, like Shaw's serpent, ask *why not?*

Generally speaking, there is not enough leadership. Many, if not most, nations and organisations are over-managed and under-led. They tend to promote managers into positions where leaders are needed. Does your nation or organisation have this problem?

What *is* the difference between the manager and the leader in each of us? The manager is a:
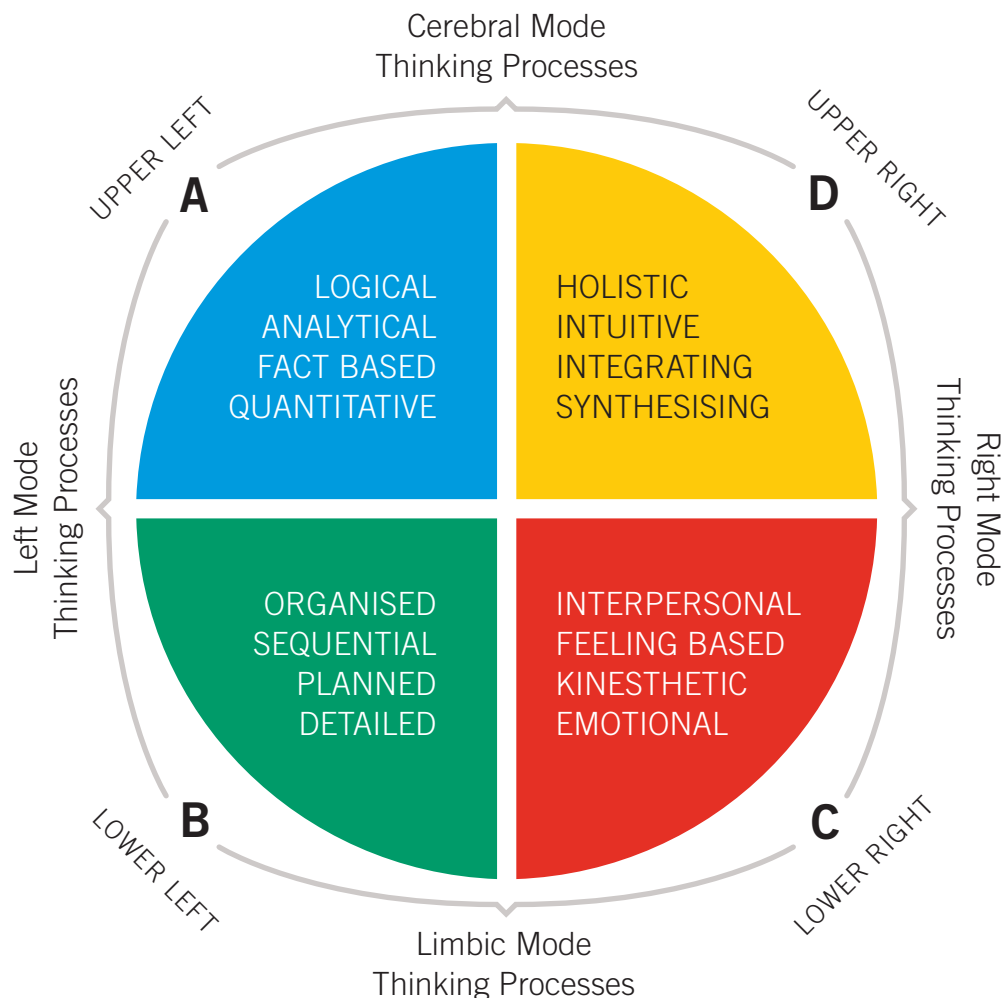
1 Change-taker
2 Future-taker
3 Path-taker.

The leader is a:

1 Change-maker
2 Future-maker
3 Path-maker.

All of us are both leaders of self as well as of others, and managers of self as well as of others, and we need to be conscious of whether at a particular moment we are acting as a manager or as a leader. When we prepare for the future we should be both a manager (a future-taker) and leader (a future-maker); at different times, both are necessary for future success. The manager and the leader in us engage different parts of the brain.

The Herrmann Brain Dominance Instrument (HBDI) is a helpful instrument for understanding the brain functions of manager and leader in each of us. I recommend to those readers who do not know Ned Herrmann's work that they should become familiar with it. The HBDI shows us how each of us utilise our brains to think and learn. Most us tend to favour one or more of the four brain quadrants, with at least one usually being used less than the others. However there are exceptions to almost every generalisation. We strategise/organise best with the cerebral left, account/safeguard with the limbic left, relate/collaborate with the limbic right and envision/create with the cerebral right. The collective result here is that management is predominately a left-brain dominant process and leadership predominately a right-brain process, although this statement could be regarded as somewhat simplistic. Those who want to further explore Ned Herrmann's work—work that has had a significant influence on my own thinking—should go to <www.hbdi.com>. The diagram on the following page should help to visualise this process.

Whole Brain Model

Cerebral Mode
Thinking Processes

UPPER LEFT

UPPER RIGHT

Left Mode
Thinking Processes

Right Mode
Thinking Processes

A

LOGICAL
ANALYTICAL
FACT BASED
QUANTITATIVE

D

HOLISTIC
INTUITIVE
INTEGRATING
SYNTHESISING

B

ORGANISED
SEQUENTIAL
PLANNED
DETAILED

C

INTERPERSONAL
FEELING BASED
KINESTHETIC
EMOTIONAL

LOWER LEFT

LOWER RIGHT

Limbic Mode
Thinking Processes

THE MIND OF THE MANAGER AND LEADER

Managers and leaders imagine both different futures and different strategies to get to the future.

The manager in us is a probable-futurist and prospective-futurist. He examines trends and imagines the probable future based either on projections of business-as-usual, or of altering course to a prospective future because these trends/circumstances change. The manager then examines the impediments, challenges, problems and obstacles emerging from these trends. She can then implement a problem-centred strategy to minimise their influence, reduce the risks they generate, or avoid them altogether. As discussed earlier, a *problem-centred strategy* is one designed to remove undesirable elements from the future and overcome impediments to getting

there, but it does not ensure a future that is the best we can make it, merely one that is not worse. And as I have previously stressed, removing an undesirable element from the future is not the same as adding a desirable element to it. And if one wants to create a better or even a magnificent future one must first imagine such a better or magnificent future. We cannot work to create a future that we do not first imagine.

The leader in each of us is a preferred and a possible futurist, looking at *what the future should and could be*. He then imagines, develops and implements a *mission-directed strategy* to realise this preferred future/possible future. The *mission-directed strategy* is designed to add desirable elements to the future as well as to remove undesirable elements from it. The manager and leader in each of us differ in a number of other ways and these different and complementary capabilities are outlined in the following table:

Manager	Leader
Responds to change: reactive	Creates and shapes change: proactive
Future-taker, path-taker, change-taker	Future-maker, path-maker, change-maker
Cautious about risk	*Careful* about risk
Does the thing right	Does the right thing
Guided by fate	Guided by destiny
Controls actions and events	Facilitates actions and events
Works in the organisation	Works on the organisation
Prophet: informed and motivated by understanding and predicting trends, and asking *why*?	Visionary: informed and motivated by imagining the future and the future self, and asking *why not*?
Probable-futurist: asks what will the future be like	Preferred-futurist: asks what should/could the future be like
Problem-centred strategist	Mission-directed strategist

Consider the difference between:

1 Taker and maker
2 Reactive and proactive
3 Cautious and careful
4 Control and facilitate
5 Fate and destiny.

To take one pair of these, *cautious* and *careful*: instead of being *cautious*, one can be *careful* and *bold*, or perhaps carefully bold. Too many people become cautious when they should be careful. Imagine that you are on the edge of a minefield. On the other side is paradise. The cautious person will not even take a step forward. The carefully bold person would use his best intelligence, surveillance and vigilance, including though utilising and

even innovating intelligence, surveillance and vigilance ways and wares, to minimise risk and reach paradise. In an era of economic crisis, most people become more cautious because the focus is on job losses and declining economic opportunity.

This feeds into further decline. A better option is to be careful and bold and initiate something new, not seek to save sunset industries and jobs but establish sunrise industries and jobs.

As discussed, the left-brain is needed to design strategic actions to realise a leader's visions. However, good leaders also engage the heart as well as the mind, for these leaders use emotional intelligence to inspire and motivate others. People are most willing to accept change, or to change themselves, when their own emotional intelligence is triggered: particularly so when they are emotionally engaged and inspired by leadership.

Another pair in the above list is *control* and *facilitate*. Imagine a parent using excessive control over her child's activities to ensure he remains safe. Imagine that child receiving insufficient facilitation and encouragement to engage in new experiences and initiate and explore new possibilities, including the chance to evaluate risks in their everyday activities. What will be the chances that that child, when an adult, will be cautious rather than careful, and that that child will be bold and careful? What will be the likely balance between manager and leader in that adult?

THE EMOTIONAL DRIVERS OF CHANGE

People become willing to commit themselves to changing their attitudes, behaviours and aspirations when they are connected to the emotional twin pairs of hope and fear, and love and hate. Many leaders have used the two negative motivators, fear and hate, to drive and engender collaboration around a shared purpose. This can be effective in the short term but it often leads to disaster. Most of us have also known leaders who use hope and love as motivators—and what heroic and inspiring leaders they can be. Martin Luther King, Jr. and Nelson Mandela come to mind as exemplars in this regard. Of course, fear can work well in a positive way when people collaborate because they face a shared threat. Churchill comes to mind in this regard. He was highly effective as a leader of a population as it faced the threat and fear generated by Hitler, but he failed as a leader for an era of peaceful rebuilding and was replaced by Clement Atlee as World War II

approached its end. Atlee offered the people a hope-filled scenario of a reconstructed Britain. Most off us know how a perceived shared threat of flood, famine, bushfire, invasion or global warming can also unite us. Fear and hate can be used to motivate collaborative action. However, a wise leader will use the twin pairs of hope and love to catalyse sustained collaborative achievement.

THE EMOTIONAL UNDERPINNINGS OF LEADERSHIP: THE 6 Cs

There are six emotions/feelings central to effective leadership. Men are usually good at the first three, regarded as natural masculine qualities, and women are usually good at the second three, regarded as natural feminine qualities. This differentiation into male and female qualities was described by Karl Jung as animus and anima respectively, and this difference is also distinguished as yang and yin respectively by Taoists. Outstanding leaders like Nelson Mandela are strong in all six of these. Most men however need to grow the feminine part of themselves— their anima or their yin. And most women need to develop the corresponding masculine part of themselves—their animus and yang.

Imagine emotional intelligence ways and wares to assist would-be leaders to grow their emotional intelligence!

A good leader is:

1 *Confident:* has self-belief without hubris (masculine, animus, yang)
2 *Courageous:* goes where others dare not, overcoming self-interested opposition (masculine, animus, yang)
3 *Committed:* does what must be done; is assertive not aggressive (masculine, animus, yang)
4 *Considerate:* listens and responds to the opinions and views of others (feminine, anima, yin)
5 *Courteous:* shows respect in conversation and collaboration (feminine, anima, yin)
6 *Compassionate:* responds with empathy to victims and the disadvantaged (feminine, anima, yin).

These qualities are at the core of the emotionally intelligent leader. You might like to score the leaders you know and work with in terms of these attributes.

Imagine ways and wares to promote confidence, courage, commitment, consideration, courtesy and compassion so that all of us can become more complete and effective leaders of self and of others.

THE LEADER IN ACTION: THE 6 Vs

There are also six kinds of tasks to be accomplished and outstanding leaders are good at all of them. Most of us are good at some, but if we are to become the best leaders we can be we should become highly capable in all of them.

The leader should be capable of:

1 *Vision*—having, motivating and facilitating inspiring visions. This involves the leader asking and answering: *What will be our probable future? What should be our preferred future?*

2 *Values*—understanding the core values or ethics currently guiding the group's behaviour.

3 *Virtues*—promoting virtuous behaviour. What values should the group consciously adopt in our present and future behaviour to ensure success, and how do we promote these?

4 *Venturers*—recruiting, inspiring and empowering supporters. Who will be and how do we nurture our *champions* (internal supporters of the leader) and our *allies* (external supporters of the leader)?

5 *Voyages*—identifying, motivating and facilitating strategic actions. What strategic actions should we identify and take? There are five categories of these: removing impediments; making improvements; taking initiatives; nurturing heritage; and eliminating baggage.

6 *Vehicles*—fostering capacity, capability and innovation needed for success. What additional financial and physical resources are needed? I call these *capacities*. What additional skills are needed? I call these *capabilities*. What social innovations (innovations to what we do, or *ways*) and what physical innovations (innovations to what we use, or *wares*) should we introduce or develop?

Imagine all the new ways and wares that could be developed to grow these 6Vs of leadership. Imagine the capabilities that need to be taught and learned for these 6Vs to become embedded in every would-be leader of self and others.

THE LEADER: THE ROLE OF INSIGHT AND REFLECTION

I have already discussed the 3 Sights (or the 3Ds of futures exploration) and the 5Ds of futures shaping. The 3 Sights should be at the heart of effective leadership. Leaders-of-others first of all must be wonderful leaders-of-self. They must use insight to understand their own destiny and to know themselves wonderfully well. They should have foresight, a vision, and know and be able to articulate their preferred future destination when they ask others to make a journey with them. And they must understand their derivation through hindsight and know the heritage they should nurture and carry with them into the future and the baggage they should jettison so they can progress successfully to that future. Too many would-be leaders focus on foresight—the task ahead—without first spending some reflective insight time, which involves reflecting about both oneself and the environment in which one is operating. The best ideas about work occur when we are not working and in a reflective mood—this is insight at work. Leadership requires reflective time and good leaders of both self and others should use it often and well. The most significant breakthroughs of understanding, and brilliant new ideas—the aha! moments—occur when they are given time to emerge. Therefore, as practitioners of meditation and mindfulness will tell you, we must make time available to facilitate their emergence.

MANAGEMENT TIME AND LEADERSHIP TIME

Many meetings have on their agendas items that are both urgent and important. But all too often the time needed to deal with urgent matters means there is insufficient time to deal with important, but less urgent, matters. This dilemma can be resolved by creating two kinds of meetings and keeping these separate from each other. The first is the management (operations/future taking) meeting, which deals only with urgent matters. The second is the leadership (strategies/future making) meeting that deals only with important matters.

Corporate boards can split their time between management and leadership time to ensure there is an appropriate balance between urgent and important considerations, and between prophesied issues and envisioned issues. Whole organisations can likewise introduce separate organisation wide management and leadership times. So, for example, on Tuesday afternoon the organisation can enter leadership time mode when all discussions, considerations and planning focus on important issues while urgent issues are put aside for a period. I have suggested this differentiation between the urgent and the important to many clients and most find it helps them to become better shapers of the future.

LEADERSHIP BY GOVERNMENTS: PUBLIC POLICY FOR REALISING A PLANETIST FUTURE

Public policy describes what governments do or need to do to shape the future on behalf of the people they serve. It is their toolkit for creating both resilient future taking and purposeful future making within their jurisdiction. This book suggests that all governments should dedicate themselves to realising Destination 2050. There is really no opting out here. In an increasing interdependent 21st century all nations and all peoples are increasingly vulnerable to the selfishness of recalcitrance of a few nations and a few peoples. Collaboration to create universal win-win is the only game on the planet. And because most governments are conscious of the reality of our perceived shared ecological, financial and other vulnerabilities, and are being pressured by the booming educated middle class shaping global public opinion, most are now seeking to be part of the solution. Self-interest is of course still there but it is being placed under increasing pressure. And the economic and political costs that will accrue to potential non-participants are also escalating.

The extraordinary success of the Apollo program was largely due to the articulation of this preferred future vision as a narrative, which then achieved near complete buy-in by the American people, and very importantly because it was completed within the time frame that was proposed by Kennedy, the end of the decade of the 1960s. A static vision becomes a dynamic narrative when it is given a time line. Destination 2050 is such a narrative. It is a story of how we are going to create a future world in which our children and their children can live indefinitely, one we are seeking to achieve within the lifetime of our children and grandchildren. With the

creation of this narrative, consisting of a shared vision and an agreed upon time line, each national government can then negotiate a social contract with its people to devise and implement a strategy to realise this future.

The vision should include strategies to deliver win-win both between nations and within nations. Within nations this will include promoting the sunrise sectors of the industrial future and the phasing out of any sunset sector industries incapable of transformation. If a transforming process does not engender universal hope from win-win and with it the achievement of synergism outcomes, the fear of win-lose will dominate, and the process will be slowed or even negated by antagonism. And as with any process based on interdependence, trust between the transformers and the transformed must be based on mutual trust that is in turn based on perceived and transparent honesty, reliability and competence.

I recognise that some cynics and sceptics will think all this talk about realising Destination 2050 is the stuff of fantasy. As a person who spent two decades in public policy leadership all I can say in response is that while it involves a stretch I believe it is a realisable goal. I have said that there is no option other than self-inflicted collective harm. More and more tipping points will come because the long-term trends are already under way. Some of these tipping points are already being reached. These include the spread of democracy through the previously autocratic Arab world, the world's collective rage at the greed and selfishness shown by many rogue banks, and the increase in the numbers and severity of extreme weather events. These events will force us to collectively act and will enforce various deniers and recalcitrant people of all kinds, whether they like it or not, to recognise that if they do nothing we—and they—will be engulfed by damaging change. Therefore they might as well be involved in shaping the change. We are now so interdependent and interconnected that we have no option but to be *involved in mankind*.

Obviously any social contracts between governments and the people they serve will require actions extending beyond one political cycle, and they will also include shared commitments to negotiate many instances of 'mutual coercion, mutually agreed upon'—tough love equitably administered.

As the world is becoming more interdependent and communitarian it is important for governments to generate within their jurisdictions a culture that values increased interdependence and communitarianism. If this does not happen a values gap will open between the external international and the internal national cultures. In turn this will lead to governments losing public support and harvesting a political backlash within the nation. Governments need to collaborate with the rest of the world to solve big global problems that affect conditions and politics within their jurisdictions, such as global financial crises and global warming. Over the last five years there has been an astonishing increase in the frequency of

intergovernmental meetings with a brief to deal with these kinds of global issues. Most national leaders leave their own countries every couple of weeks to attend such international meetings. It is certain that this cooperation will need to increase even further, for these issues and many other similar matters cannot be dealt with otherwise.

Let me illustrate this issue with an example. The European sovereign debt of 2011–2012 has been significantly worsened by the internal politics of some countries. Greece, for example, used the communitarian and interdependent culture of European cooperation to benefit itself and gain access to low cost loan funds. The Eurozone expected that the basis of this relationship would be mutual honesty, reliability and competence. Perhaps because it believed that the highly individualistic and independent Greek people would not conform to this regime, successive governments of Greece acted with considerable dishonesty, and some would say with unreliability and incompetence as well. The Greeks took the European money but did little to lessen tax avoidance at home or take other measures to promote a greater sense of communitarian responsibility. Governments in Greece failed to drive a values shift within the country that would have made the Greeks more aware of the reciprocal responsibilities required by their interdependent relationship with Europe. They wanted to maintain the benefits of the political marriage but do little to respect or honour it or commit themselves to it.

Many of the countries of Europe have similar gap problems, with perhaps only the successful Germans having an internal culture reflecting the external culture required to make the Eurozone thrive. In some countries like France and Spain the values gap is small, in others such as Italy the gap is larger though nowhere as great as in Greece. At present the nations of the Eurozone are close but not close enough. The only way for the EU to work the way the Germans and French want it to work is for it to become a single extended family. Those nations who cannot cope with this level of intimacy will probably have to leave. And if they do they will pay a high price.

In my outline of the 6Vs of leadership I discussed values and virtues as separate but related entities. The values shift I am describing will require the conscious promotion of certain virtues that are the values that will actually make the Eurozone work. Similar examples could be drawn from the political struggles going on within nations, including my own Australia, to deal with global warming. The government has taken Australia to the forefront of leadership in driving international cooperation to deal with global warming, but many Australians are not comfortable with Australia being a global leader and have worked to generate a backlash against this courageous government initiative. These are mostly older Australians who have not moved their mindsets from nationalism on to planetism. The bottom line here is that governments need to ensure that the values needed to bring the world together are matched by the internal values of nation states. Ultimately, by 2050 the whole planet must think, act and cooperate

as if all humanity were cosmonauts on a spaceship. This is a big ask but it is still an achievable goal. One only has to turn on one's TV to be exposed to the events and conversations that are bringing this about.

If public policy within each national jurisdiction is to become the best contributor it could be to realise Destination 2050 globally and also ensure that the benefits that accrue to the nation from making this journey to Destination 2050 are maximised, there are eight policy areas that should receive more attention. The first one of these is that government should lead the development of a shared preferred future vision and a mission-directed strategy, first as a narrative and then as a social contract between the government, various economic sectors and the people to realise this vision with win-win outcomes and an agreed sharing of pain to achieve collective gain. And this narrative should include an appropriate agreed upon balance between intragenerational and intergenerational justice issues. Without a broad buy-in, antagonism rather than synergism will dominate the political climate and dialogue and the communitarian journey forward will be undermined by sectoral (individualist) vested interests. This vision and strategy for Destination 2050 can be implemented as a rolling ten-year preferred future vision and with rolling five-year programs of strategic action and budgeting.

The second aim should be to promote the emerging sunrise industrial sector instead of propping up the diminishing sunset sector. This is not easy. The vested interests of the unsustainable present are more numerous, politically stronger and noisier than the vested interests of the sustainable future, who of course are still mostly *in* the future. These vested interests of the unsustainable present will try to direct governments to fulfil their notion of intragenerational justice.

Consider for example the politics of managing a transformation towards a clean energy future. In this situation the fears of win-loss will dominate the political conversation if trust between the parties is not established. The lines of potential conflict will be between both clean and dirty energy and between intragenerational and intergenerational justice. To manage this transformation successfully it is important that both of these receive attention, not just the energy related division. The strategy to realise this transformation should be to devise a win-win strategy in both of these that can be embedded in a social contract between government, stakeholders and the electorate at large. This strategy and social contract should enable the two vested interests of intragenerational justice and dirty energy to slowly let go because they are reassured that their concerns about being on the losing end of win-loss are being fully catered for. We need new and better ways and wares to more effectively do very hard industrial transformational jobs such as these, and the potential global market for these ways and wares.

In Australia the coal industry is huge, powerful and still growing because global markets still want coal for energy. But sooner or later all of this will stop, and the sooner it does the better for the planet. However, it is important to remember that coal and hydrocarbons of all kinds will still have a vital and even growing role in the production of carbon-based materials. Lightweight, strong carbon-based materials are needed for a sustainable future. A tonne of coal or a barrel of oil burned for energy today will mean less will be available for carbon-based materials production tomorrow. Eventually we will make these materials in artificial photosynthetic industrial plants but this is a way off yet. It is clear that coal should be phased out globally as an energy source, probably by about 2030 but certainly by 2050. I have worked with oil and coal companies and I remind them of the emergence of planetist ethics and of the fact that, like it or not, they will be regarded as pariahs if they release climate-changing emissions into our shared atmosphere in the year 2030 and harm others and the planet by doing so. They will become pariahs just as a person who smokes in a café today is one. By 2030 we will have no choice but to produce energy with zero net emissions, because defiling our atmosphere will be unacceptable by then. This is not that different from suggesting that a facility releasing untreated sewage or toxic waste into a river that is used by many others should be allowed to continue doing so. We can clean up sunset industries with problem-centred innovations and buy time, but it would be better to create mission-directed sunrise innovations designed to operate with zero emissions from the start. Over time the sunrise sector will triumph no matter how adaptable the problem-centred sunset sector is. Here are two reasons for this. One is that with any waste reduction there will always be a risk that things might go wrong, and the universally accepted precautionary principle says that if there is a significant risk you shouldn't go ahead. It is better to design out the generation of waste in the first place. Another reason concerns the market. Consider which the market of 2030 will prefer, a motor vehicle with an internal combustion engine with minimal emissions that are slowly being further reduced—the product of a problem-centred strategy, or one with an engine originally designed to produce zero emissions—the product of a mission-directed strategy?

The third aim public policy should have is to develop industrial clustering so that synergies are created between research and development organisations, higher education institutions and commercial corporations focused on new industrial futures—the sunrise industrial sector. Some examples could include clusters for sustainable energy, lifestyles, sustainable food production and processing, green urban design and development, sustainable transport and infrastructure design and development, democracy, conflict resolution and peace-building, intercultural and inter-religious harmony, illness treatment and wellness creation, and security.

Many of the ways and wares that would be produced in these clusters will embed advanced generic technologies such as digital technology, biotechnology, nanotechnology and advanced materials technology. The role of these technologies will be discussed in Chapter 10.

A fourth aim is for public policy to give priority to market-based approaches to shape the future rather than to rely on command mechanisms, which are based on investment push by governments. Market-based mechanisms utilise market pull created by consumers, and they work best in a world increasingly dominated by a single integrated interdependent global marketplace. An example of a market-based initiative is to place a price on carbon to drive the market to reduce and ultimately abolish anthropogenic carbon emissions. This is preferable to the command approach of directly subsiding renewable energy at taxpayers' expense, although some mix of both approaches might be appropriate in some cases. An example of this approach would be to use government procurement of particular goods and services to encourage industries to transform themselves rather than using direct investment by government in industries at taxpayers' expense. For example, a government could notify the automotive industry that in three years it will place bulk orders for green cars. This would encourage private investment in green car production and the net result will be an increase in the market penetration of green cars. This is preferable to the command approach—direct government subsidisation of the automotive industry. And unlike many command approaches, market-based industrial restructuring is compatible with the international trade rules set by the WTO.

Fifth, public policy should not concern itself only with concerns within its jurisdiction. In an emerging planetist century, future relationships with the rest of the world should be included in any narrative. Nationalist industry policy transformations should also seek win-win outcomes both for national and planetary interests. So protective devices such as tariffs and subsidies should be ignored and market based solutions compatible with world trade rules used to the maximum extent. These trade rules won't go away and in the next couple of decades are more likely to tighten and multiply. So new public policy ways and wares to promote industrial development by means that do not collaterally harm others beyond the jurisdiction will be necessary.

Sixth, public policy should ensure that an educational strategy is in place both to develop the skills for an emerging sunrise sector and to renew the skills of the workforce in the declining sunset sector, so that it can also participate in the emerging sunrise future. Education should seek to achieve a number of other things as well and these will be discussed in detail in the next chapter.

Seventh, public policy must recognise that where any industrial transformation is being undertaken in a jurisdiction undergoing demographic ageing then major new initiatives in labour productivity will be necessary. As the global population stabilises in the third quarter of the 21st century this will become the universal norm. Somebody or something will have to pay to ensure that the aged are content and respected, and this will certainly involve an increase in automation. Robotics in all its forms will be a major component of any industrial restructuring and every jurisdiction should seek to grow at least some ability in robotics as part of their global response to ageing. No industry will be unaffected by automation. For example, in a decade Australia's huge mining sector will be operating under the guidance of a few smart people and with the use of many smart machines.

Eighth, governments of all levels should promote the creation of workplaces that are planetist in culture. If workplaces reflect the emerging global culture early they will be more successful because they get to the future first. This means they should be communitarian, interdependent, democratic, sustainable, secure and harmonious. There would be many benefits from doing this. They will be much more productive and they would be more likely to retain their most committed and productive employees.
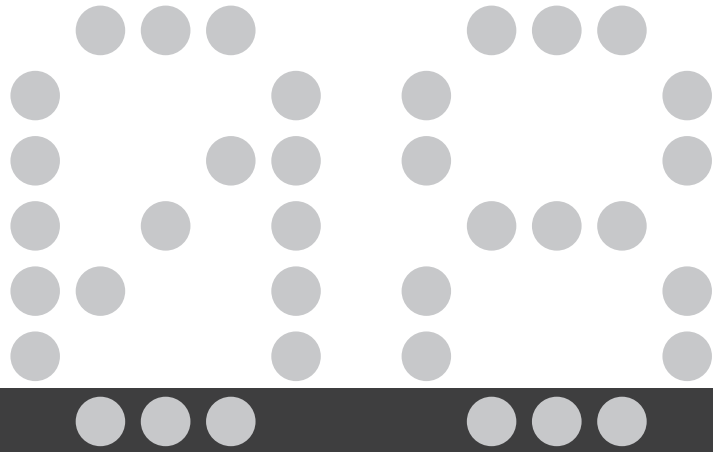
Learning for
21st century success
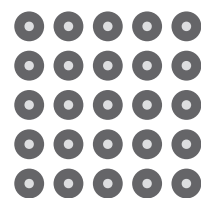
I HAVE MENTIONED that the job of parenthood may be described as working for about twenty years to create successful adults. The formal education system is a vital partner in this process. So one question we should ask is, what are the capabilities and knowledge that are required to achieve successful 21st century adulthood?

It is extraordinary how infrequently this kind of question is asked. There is no significant discussion about what skills a young person should possess so that he or she can be a successful adult in a generation's time. Clearly, a broader public conversation is needed about what skill sets and mindsets might be required to prepare our young for success in an emerging 21st century society. Learning in all its forms is the most critical thing we do to prepare for the future—and as I mentioned before it is also one of the six key tools required for successful future shaping. Although many people tend to regard education primarily as a knowledge transfer and acquisition activity, it is actually a personal transformation and development activity, to enable the learner to create future success and needs to be viewed and designed as such.

However, at present there is not sufficient understanding in educational circles of the characteristics of 21st century society that make it different from 20th century society.

Indeed too much discussion on education futures is technology focused, not content focused. Except for discussions on delivering learning through educational technology and the implications of technological change for learning and teaching, 20th century thinking still shapes too much of our current educational planning. Change is being shaped more by technology than by future needs. Because we rarely ask ourselves what do we need to know, and be capable of doing, to be successful in a generation's time, the needs of the future have hardly any influence on what the young learn in our schools today. We still assume when we plan our education that tomorrow will be today with a few small changes. This is not the case any more. Many young people are currently doing a remarkable job of preparing themselves for 21st century living despite rather than because of their schooling. They have access to awesome levels of information and knowledge on their smart phones and their tablets. It is worth asking how much knowledge and capability they are acquiring outside of school compared with inside the school. The answer is probably not flattering for schooling. This is especially so because fifty years ago schools and other educational institutions were havens of learning and knowledge in a world that had much less respect for learning and knowledge. How times have changed!

The growth of learner-driven learning modes through the spread of online and mobile digital technology—smart phones and tablets—including into poorer developing countries and rural areas is changing the world of learning. It is giving our young the opportunity to be learner-driven learners again just as when they were two year olds and before they commenced school. Those who are involved in teaching and teacher

education do not seem to have addressed the implications of this trend. As smart phones, tablets and PCs increasingly penetrate the developing world the implications for education in poorer nations is probably even greater. In much of the developing world schooling is dominated by more archaic teaching and learning pedagogies and mindsets. All learning still requires adequate literacy and numeracy and this is mostly learned in schools. However, remotely delivered literacy and numeracy programs—remote literacy and numeracy ways and wares—will certainly grow in the next decade. Yet even illiteracy and innumeracy are not the blockages to learning for future success they once were. Digital technology can also provide significant learning opportunities for the illiterate and the innumerate, and those with various learning difficulties. I will be discussing customising learning to deal with learning impediments shortly.

We are not just concerned about technology. Even more important is creating a 21st century relevant curriculum that enables complementary learning inside and outside the school. Generation Y increasingly understand what they want to know for future success and they will find what they want to know with or without a teacher or a school. Our young are using non-school learning more and more to provide them with 21st century relevant capabilities and knowledge. This is just as well because too many schools and other educational institutions are transforming themselves at a snail's pace. This is despite that fact that many principals and teachers would like more rapid transformation. Schools often are rapidly changed for the worse by budget cuts but positive change is slow to accomplish. If the school system is large positive change is slowed by systemic inertia. This requires changing school cultures, teachers and teaching, and in some places the mindsets and recalcitrance of school administrators and teachers are part of the problem rather than part of the solution. Even principals of wealthy independent schools often don't promote desirable reform because it is opposed by parental conservatism. Meanwhile the young continue to learn more and more outside the school environment. One prescient educator told me that our young were now acquiring so much of their knowledge from outside the school that they are probably going to school so that they can learn how to socialise.

This issue will only be properly redressed everywhere by redesigning the school educational experience: that is, by providing a 21st century learning culture and 21st century-relevant curricula inside the school so that it complements and challenges learning gained when students are not at school. Bearing in mind both what I have been saying and that today's youth will need to possess the skills and mindsets needed to construct a successful life and career paths in a 21st century society where many of the job categories and innovations, products and services that will be present during their adult lives have yet to be invented, what should the children of today learn?

CAPABILITIES NEEDED FOR 21ST CENTURY SUCCESS

Here is my list of the things we need to learn and teach for successful 21st century adulthood. Our young should:

1   Embody the nine key values of planetism. Critically important is ensuring our young are comfortable in an era of increasing interdependence and communitarianism. The relative social importance of the interdependent relationship is probably the most significant element that differentiates the 21st century from the 20th century. It is important for all of us to know how to conduct interdependent relationships. Everybody should have the ability to establish, nurture, support and, when necessary, amicably terminate interdependent relationships. This in turn requires a level of maturity that leaves behind the selfishness of childhood and facilitates a sense of responsibility for creating one's own life and career path while being cognisant of the needs of others and the community. And such a program also requires high emotional intelligence—being able to access and understand both one's own feelings (intrapersonal emotional intelligence) and the feelings of others (interpersonal emotional intelligence). Emotional intelligence is essential for the conducting of successful interdependent relationships. We must be able to be both interdependent and communitarian when we ought to be and independent and individualistic when we need to be.

2   Maximise their capability for critical and creative thinking, for knowledge, creativity and entrepreneurship will be core generators of 21st century prosperity. This means that philosophy should again move to the centre of education and learning particularly in primary school. Logic (modes of reasoning), metaphysics (what do we know?), epistemology (how do we know?) and ethics (what should we do?) should all be components of such a program. This is not just a curriculum for just a few. The broader our base of capability to think critically and creatively the more productive our collective economic and social prosperity will be. We also should be able to communicate our thoughts and feelings through the use of pertinent and relevant vocabularies.

3   Be able to reflect and let ideas and understanding emerge. Most of us have noticed that our best ideas about our work occur when we are not working. We should be able to place ourselves in such a reflective state when we want and need to. Teaching meditation and mindfulness at an early age would produce these outcomes, and produce other benefits such as providing
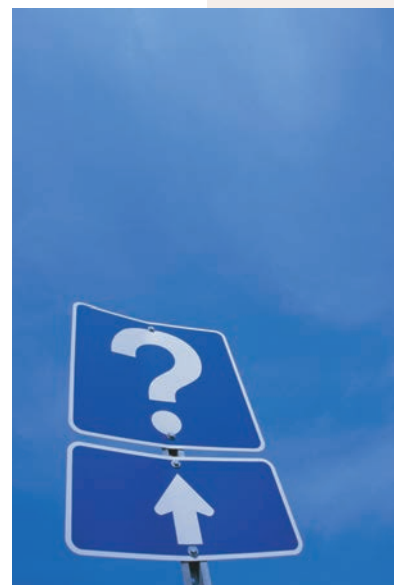
a toolkit to manage anger. The young, by the time they reach the testing time that is puberty, should be able to resist peer (and other) pressure to behave in ways that endanger themselves, others and the environment, because they know how to be calm and purposeful when under pressure or surrounded by threats, anger, danger and hysteria.

4   Understand how they learn best so learning becomes as effective as it could be. This requires we customise our learning processes so we can maximise our learning. I will discuss this more fully shortly.

5   Have an understanding of their core capabilities, strengths and weaknesses through *insight* so they can most effectively chart their life and career path in a world of rapid change. We are all different and we should understand how we are different. I have already discussed the 3 Sights. Except for a very few, the lifetime job is no more, and for most of us this will be a positive thing. Successful 21st century life and career path making now require the ability to assess and understand our capabilities and continuously develop them. We should also be able to utilise *foresight* to plan life and career pathways that best match our destiny and *hindsight* to know how experiences, both positive and negative, can influence our personal development.

6   How to be an effective manager of self (resilient future-taker) and leader of self (purposeful future-maker) early in life and over time develop the ability to use all six future-shaping tools.

The first thing to note is that little of this suggested curriculum is taught and learned in current schools. This agenda mostly focuses on growing capability, for after all information and knowledge can now be found everywhere. We do not need teachers or even schools to provide as much of these as we used to. Our schools should spend more time on growing capability and less time on growing knowledge. The second thing to note is that most of this agenda requires a great deal of practice. Imagine simulated learning environments in both homes and schools that would provide this practice. Schools can become more places where games are played and less a place where facts are memorised and regurgitated.

Imagine the ways and wares that could be developed to realise this.

IMAGINING AND BUILDING A 21ST CENTURY EDUCATIONAL SYSTEM

I have already suggested that the primary purpose of both parenting and schooling is to create future successful adults. I have also already listed some of the capabilities our young will need to embody and the mindsets and knowledge they should acquire to ensure their success in emerging 21st century society. So what would a 21st century curriculum embedded in a 21st century learning culture that could deliver our young this 21st century success look like? Whatever we design we also should recognise what, where, when, why and how our young will learn in the next two decades. And as we look forward and create a vision we should also look back to identify and keep priceless educational heritage we bring from the past and identify and eliminate the now worthless educational baggage we have accumulated while we were trying to fix up the things that went wrong in the 20th century.

ENVISIONING A 21ST CENTURY LEARNING CULTURE

If we started with a blank sheet of paper and sought to redesign a 21st century-appropriate learning culture, what would the result be? What should be the respective roles of the inside school and outside school learning environments? Certainly we should be envisaging a very different role for teachers. What is the heritage we should keep and nurture and what is the baggage we should identify and eliminate? I have attempted to answer these questions below. We need a new culture of learning that makes the best possible use of the potential offered by new technology, embraces new knowledge about how we learn, think, feel and reflect, and implements a curriculum that develops 21st century-relevant capabilities in our young. What follows is my description of a 21st century learning culture. It contains eight components:

1 Lifelong learning

Formal education is now available to anybody in the developed world and much of the developing world—including in all democracies. Not long ago formal education was what we all did when we were young and, for most of us, seldom did after our adolescence or at best our late twenties. Now some learning is available to all—except for women and girls in a few theocratic autocracies—the next challenge over perhaps two decades is to make it a lifelong option for all who want to learn. Here are some of its possible elements:

• There are regular negotiations between learners and providers that occur at the entry and re-entry points into learning to ensure education is most relevant to, and customised for, the learner's aspirations and learning styles. This continues throughout life.

- There is a lifelong loyal relationship between learner and provider similar to a relationship with a GP. This provider keeps detailed records of all the student's learning and career and life pathways, compiling an educational equivalent of the medical record that is made accessible to other providers with the learner's approval when a learner enrols with a particular provider. This is similar to a GP referring a patient to a particular medical specialist.
- Case management of learning is undertaken by providers to ensure learning is customised to meet the learner's aspirations. We have replaced economies of scale with economies of scope in manufacturing. We should do the same with education and learning.
- There is a two-way loyalty scheme between learner and provider similar to a frequent flier program. This creates interdependence and mutual commitment between learner and provider.

2   Learner-driven learning

Learning is the responsibility of the learner and is initiated and managed by the learner through the use of learner-driven learning processes, not by the teacher/mentor. The student seeks information and knowledge from all sources, including online, and both inside and outside the school. Some information and knowledge is provided by the teacher but over time the relative proportion provided by the teacher decreases as the student's skill at finding information and growing knowledge increases. The teacher/ provider acts in three ways to improve the student's learning. As a:

- Knowledge navigator, introducing the learner to pathways to data, information and knowledge
- Mentor, helping the student to turn data and information into knowledge and wisdom
- Case manager, pastoral carer and personal development counsellor, ensuring that learning is relevant and customised to meet the learner's aspirations and promotes their personal development.

3   Just-in-time learning

Opportunities to learn are provided when curiosity and the need to know and understand is greatest: that is, *right now*, just as two-year-olds like to learn. Indeed, the two-year-old is an exemplar of a lifelong, learner-driven, just-in-time learner. One of the goals for 21st century education should be to keep the two-year-old learner alive in all of us throughout our lives. As I have said already the availability of masses of knowledge and information, what, when and where it is needed, and via digital online or mobile devices, is enabling the young to keep their two-year-old learner culture alive and

well. In the past this embodied self-actualising lifelong, learner-driven, just-in-time learning culture would have been crushed by the school learning culture based on uniform one-size-fits-all and teacher driven learning. If the two-year-old learner in us can be maintained and nurtured into adulthood the implications will be immense. Mark Twain once said 'my education was only interrupted by my schooling'. Then and throughout the 20th century large numbers of people would reach adulthood remembering their school years as a bad experience, never to be repeated. Then education was based on Fordist and Taylorist mass production manufacturing models. Keeping the two-year-old learner alive well into adulthood would massively reduce such alienation from formal learning. Now lifelong, learner-driven and just-in-time learning can be complemented by the provision of just-in-time knowledge navigation and learning and personal development mentoring by teachers.

4 Customised learning

All learning opportunities and processes are customised to suit the learner's preferred learning and thinking styles and so becomes more effective. We are all different and our minds differ in the way we learn, process information and create knowledge. This is what the work of 'Ned' Herrmann with his Herrmann Brain Dominance Instrument (HBDI) and others who are interested in how the mind works have taught us. In the 21st century it is possible to create new learning modules customised to each particular learning and thinking style. After testing (e.g. via the HBDI) for our preferred and best learning mode, we should be able to choose a learning module customised for us. The emergence of new understanding about neuroplasticity indicates that customised learning can be extended into totally new areas to improve the ability to learn, for those both with and without learning disabilities. Many new ways and wares seeking to customise learning through stimulating particular processes of brain transformation will emerge in the next decade. Under this umbrella of customised learning we could also include what I have been saying about ensuring the two-year-old learner stays alive in us for life. Imagine customising learning to affirm and nurture the two-year-old learner in each of us.

5 Transformative learning

Learning should be designed to maximise learner transformation so that people become not only able to complete tasks they were previously unable to achieve, but have undergone a positive transformation in other ways. This transformation could be evaluated throughout our life, something we know is possible because we can see with techniques such as MRI that brain function and structures do change with learning. The recent recognition of the importance and potential of neuroplasicity will make this issue of

transformative learning even more important in the future. We tend to think that disability means inevitable disadvantage. We associate these words as twin pairs, forever bound together. Imagine ways and wares that could enable a disabled person to transform herself so that she becomes advantaged, despite the disability. Alternatively, a disabled person can be transformed by the removal of the disability so that resulting ability can then lead to consequent advantage. This could include using learning driven neuroplastic transformation or other yet to be discovered innovations to overcome learning difficulties of all kinds. Finally, can you imagine new ways and wares that would permit us to assess learning through the transformation that occurs, or alternatively transformation through the learning that occurs, rather than, as now, by the knowledge revealed by an examination?

6 Collaborative learning

Learning can be designed to ensure it is as effective for groups and organisations as it is for individuals, because as the world becomes more interdependent the ability to collaborate becomes more important. Loyal interdependent relationships with co-workers, suppliers and customers are now crucial to building successful 21st century economic success. I have already said much about the importance of interdependence in the 21st century. Technology is creating a convergence between professions and domains that was unimaginable a generation ago. Our industrial futures will increasingly require the collaboration of people with different and previously separate skill sets, mindsets and professional work cultures. Multimedia, for example, combines the work of creative people such as writers, visual artists, cinematographers, animators and musicians, among others, with digital engineers and other technological workers. This kind of interprofessional collaboration is increasing, and synergistic rather than antagonistic outcomes cannot be guaranteed. Most of us could become better at working collaboratively to create synergy as the norm, so learning how to work and learn collaboratively will become increasingly important. I have discussed the six future-shaping tools. Imagine new ways and wares that enable these six domains embodied in different individuals in different mixes to be seamlessly integrated. These individuals learn together so that they can collaborate marvellously well and create consistent and ever improving synergism while consigning antagonism to the past.

7 Contextual learning

Learning can be maximised by placing it in relevant real or virtual real—simulated—environments. We should be seeking to make all learning as experiential as we can, and when this cannot be done in real life it can be done through games, simulations and virtual reality. Our childhood games often involve simulating the adult world. Now technology is permitting many new kinds of simulation. The more practice we can get the more able we will become. Young professionals of all kinds such as teachers, nurses and doctors have had periods of professional practice included in their professional development programs for a long time. Now technology and virtual simulation is making professional and employee practice richer and more broadly based throughout the world of work. Starting with simulated processes such as flight simulators for pilots, simulated learning has now become a mainstream process for work skill development, and this will increase massively in the next ten years. Imagine when a young person seeking employment is asked about her experience and is able to say *I only have ten hours of real experience but I have 150 hours of virtual experience!* In addition contextual learning is important for shifting perceptions and values as well as providing experience. Learning will be more complete when the environmental context in which this learning occurs is most realistic. Imagine, for example, learning about animal rights and the value of a vegetarian diet not in a classroom but in an abattoir (slaughter house). And now, through technology we can create a virtual abattoir and bring this abattoir into the classroom.

8 Learning to learn, think, feel and reflect

As learning is just about the most important thing we do to prepare for the future we should seek to be the best possible learners we can be. So learning to learn should be a part of our learning. Some of us learn quickly and well and others struggle to learn. The concept of learning difficulties is usually used to describe those who have severe learning difficulties. However, all of us can learn to become better learners, and most of us just accept that the way we learn is something we have to live with and we never set out consciously to improve how we learn. We should be able to assess how we learn as well as what we learn. If we do this then we can improve how we learn and become better learners. We will become more effective learners if we grow our capability to be a learner driven, just-in-time and customised learner. We should be able to embed these other parts of the learning culture toolkits in each of us. Of course we will also learn to learn better if we grow all the other access modes to learning such as literacy and numeracy. The bottom line is that we should include in our learning curricula and pedagogies that we improve how we learn as well as what we learn. There are some excellent people doing marvellous things working in this field, but we have hardly scratched the surface in improving our learning capabilities.

We can and should also learn to think more effectively, and more creatively and critically. There are learning and thinking development modules already available to improve creative and critical thinking. I am currently working with a program called *kinder philosophy* (www. kinderphilosophy.com) to introduce children to philosophy in primary schools including logic (modes of reasoning), metaphysics (what do we know), epistemology (how do we know) and ethics (what should we do). Here primary school children discuss the big concepts that matter to them in a learning environment that encourages critical and creative thinking. They are also introduced to new vocabulary so that they can express their views and ideas more cogently and become more effective in their communication with others. To be able to think critically and creatively and express oneself well in a knowledge and creativity based 21st century industrial future will be a passport to future success.

I have already discussed the centrality of the interdependent relationship in 21st century society and how high emotional intelligence is essential if we are to be able to successfully initiate, nurture and amicably terminate interdependent relationships. Many of us have relatively poor emotional intelligence skills. There are two aspects of emotional intelligence. Intrapersonal emotional intelligence involves being able to access, understand and manage one's own emotions. Interpersonal emotional intelligence involves being able to access, understand and relate to the emotions of others. Most of us can become much better at both of these. And sadly most of us go through life without ever seeking or being given the chance to improve these emotional intelligences. This is a massive area of neglect in our schools. I have worked with a program called Kimochis (www.kimochis.com), which uses toys with emotions attached to stimulate the development of emotional intelligence in young children. This can and should be taught and learned in our primary schools.

Finally, the introduction of the young to meditation and mindfulness has huge potential to enable all of us to be enlightened more often. Understanding and insight about your work often occurs not when you are at work, and when you either are in a reflective mode or having a stimulating conversation not associated with your work. The ability to create inner calmness is not only good for your health but also creates the reflective time and space to enable the emergence of the 'aha' ideas and conceptual breakthroughs that make the big difference. For creating significant innovation breakthroughs, maximising our chances of charting successful forward pathways, and be most enlightened at key decision making points, reflective time and space are needed.

These four, but thus far relatively neglected, domains of knowledge should become major components of primary education so that the young can develop these abilities before they reach the turmoil that is puberty.

Imagine the ways and wares that could be developed to grow and assess our capability to learn, think, feel and reflect.

REINVENTING INITIATION FOR THE 21ST CENTURY

I have mentioned several times already the challenge that the young meet at puberty. Now I want to discuss this momentous transformation of child into adult in more detail for current western society is for the most part failing our young at this moment and is not giving them the support they deserve. In traditional societies the young learned how to become successful, responsible adults through a process conducted at puberty called initiation. Many of today's young have not achieved this responsibility even fifteen years after puberty. This immaturity causes much harm to adolescents and significant social problems including:

1   Community violence and destructive behaviour such as that which occurred in riots in English cities in August 2011
2   Binge drinking and drug taking
3   Unsafe sex
4   Intercultural and interreligious intolerance
5   Dangerous driving, train surfing and other forms of high-risk behaviour
6   High levels of youth self-harm and suicide.

Children in the dependent phase early in their lives are naturally selfish and self-indulgent. In order to become successful adults, when they are on the threshold of independence they have to learn how to become responsible for their own lives and to be responsible members of the communities in which they live. This is a big challenge most of current society is spectacularly failing to achieve. As a result there are many untransformed boys living in men's bodies and fewer though a still significant number of untransformed girls living in women's bodies. The case for reintroducing initiation into society has been made by many people including by Robert Bly in his book *Iron John* (1990) and Steve Biddulph in his book *Manhood* (1994).

In many if not most schools the middle years of secondary school are not working well. As many teachers will tell you, Year 9 can be a wasted year and it is for teachers a very stressful year. At puberty the young tend to

lose interest in the traditional educational fare. What they want is access to the secrets and mysteries of adulthood, as has been the case over millennia, where the traditional process of initiation was used to reveal these to them and to purposefully transform them into responsible adults. Throughout the ages it was a transformation anticipated by the young with excitement even though they knew they would be severely tested by the process.

We need to go back to the future and introduce a customised version of initiation relevant to the 21st century, a rite-of-passage process to transform children into successful adults who can become good parents and responsible members of 21st century society. If society does not provide initiation for the young they will invent their own form of it, and this will usually involve high-risk behaviour. There could also be merit in indigenous communities reinventing their own initiation for 21st century purposes so that they can both affirm their traditional tribal culture and become successful 21st century adults—planetists—in a pluralistic 21st century. This could be done through a holistic program of initiation in the middle years of secondary school, where we abolish some of the current curriculum and reconstruct it into a preparation for successful adulthood year.

For immature students who are already adult, a similar program in post school environments could be re-branded into a 'successful lives and careers program'. Without such a program, many vocational and general education programs will at least partially fail because many students will not develop sufficient self-responsibility to be effective makers of their own lives and career pathways, responsible employees and successful participants in an interdependent 21st century society.

I am working with an initiation program already operating in Australian schools called The Rite Journey (www.theritejourney.com.au). The program content includes:

1   Personal biography, gender identity and construction
2   Feelings and beliefs, relationships and sexuality
3   Anger, bullying, depression and violence
4   Risk taking (including drugs), stillness, meditation and relaxation
5   Communication, mentoring and our place in the modern world
6   Progress through seven myth-inspired stages with 'graduation' rituals/ceremonies at the end of each stage
7   Community service, team sports and activities.

Initiation traditionally transferred the responsibility for raising the young from the parents to the grandparent generation—the elders. This is because, as their children mature, many parents understandably struggle to transform the relationship with their offspring from one dominated by control when their children are dependent to one dominated by facilitation as their issue struggle to become independent. True independence is required before their young can begin the even more daunting process of self-transformation to when they can learn how to become interdependent.

It therefore makes sense for initiation to be handled by either the grandparent generation or the aunts and uncles or the equivalent.

Initiation programs could include content designed to help students:

1 Nurture their self-esteem
2 Respect others, including parents and elders
3 Participate as responsible members of the community in which they live
4 Begin, nurture and maintain successful interdependent relationships and amicably terminate them when necessary
5 Develop healthy and sustainable lifestyles
6 Become enterprising, self-actualising individuals
7 Be lifelong, learner-driven learners
8 Become first leaders of self and then of others
9 Create career paths which bring economic and social security
10 Understand that individual rights must be balanced by reciprocal responsibilities and service to others and the community
11 Value and know how to nurture the environment and other species
12 Respect other cultures and religions.

Imagine:

• Successful adulthood ways and wares to be used during initiation and elsewhere
• Creating initiation ways and wares and teaching programs for successful adulthood in vocational colleges as well as in secondary schools.

EARLY CHILDHOOD EDUCATION

The other area of education that is not succeeding as well as it could is early childhood education. Mark Twain once noted that the biggest denial of human rights he knew of was that children do not have the right to choose their own parents. Our first teachers are our parents. Children arrive in school already advantaged or disadvantaged by the skills of their parents as teachers.

Imagine early childhood learning ways and wares with teachers going into homes when children are in utero and just born, teaching parents to be magnificent teachers of their own children, including providing them with formal curricula developed specifically for young children.
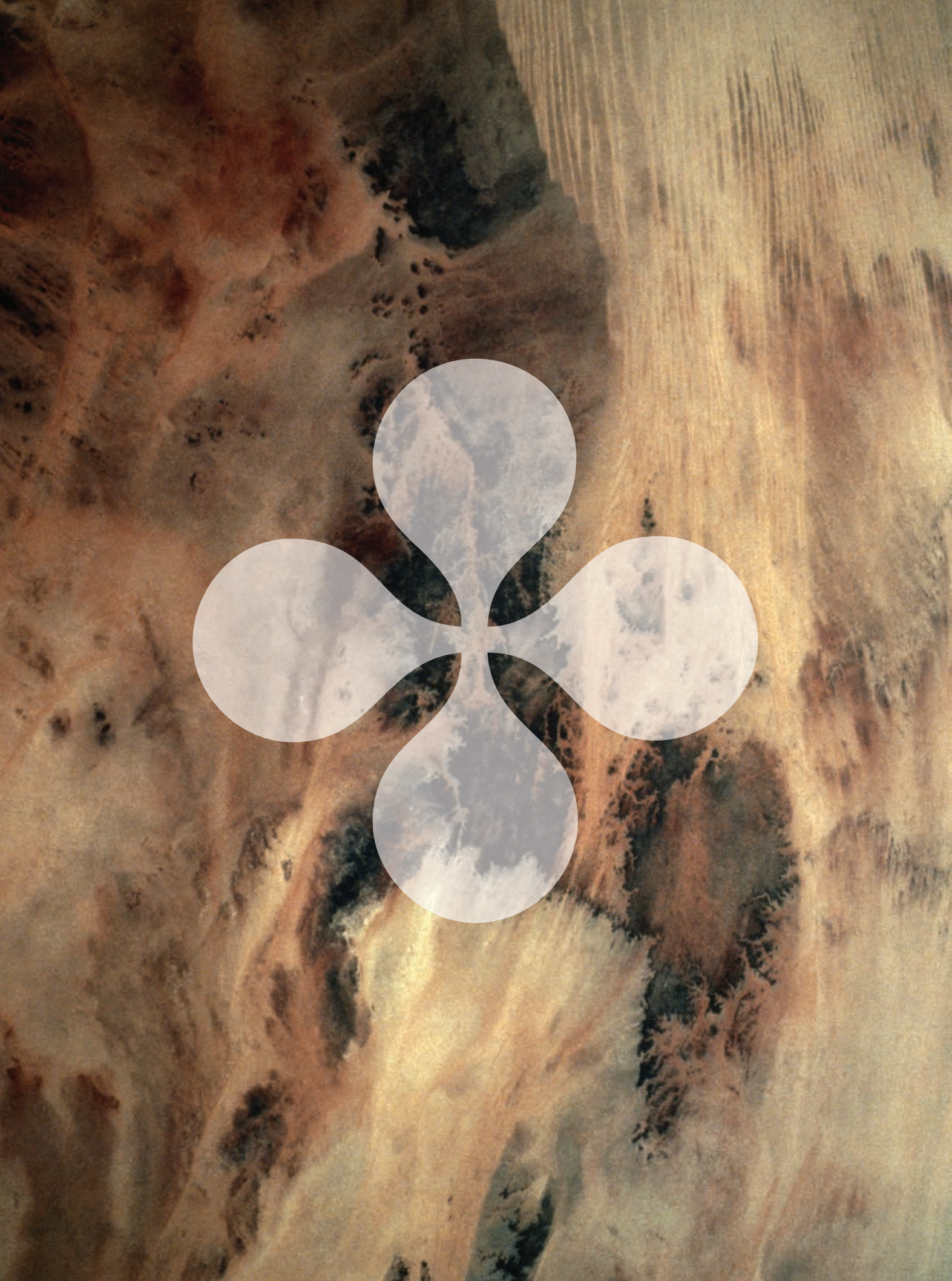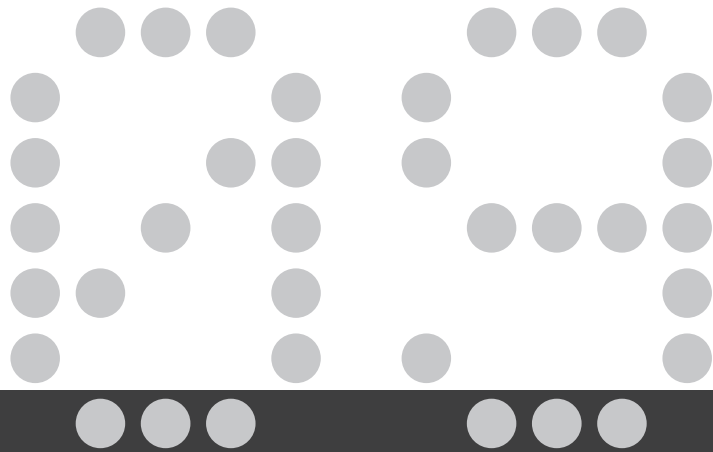
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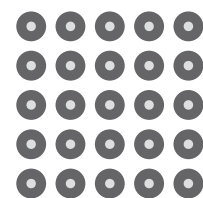
D ESPITE THE HUGE GAINS in medical research and the extension of life so that in most of the developed world mean life spans are over 80 years, there are few communities where individuals are as healthy as they could or should be. Likewise, though our society is ageing because of both life extension and declining birth rates, most of the developed world is not achieving what could be called *successful ageing*.

ILLNESS TREATMENT IN THE 21ST CENTURY

As a former biochemist I am often awed by the extraordinary advances being made in my lifetime for the treatment of illness. The three most significant advances in our knowledge that have produced this bioscience revolution were the discovery of DNA and its role, our consequent mapping of the human genome, and our understanding of how genes guide the synthesis of specific proteins and peptides and of the physiological/ biochemical role that each of these proteins and peptides plays. However, our current medical and 'healthcare' system also has many flaws. Here I want to draw attention to some aspects of health policy and administration that should change to make the whole health system both more effective and less expensive, and how we can all become healthier in the 21st century.

First of all, generally speaking, healthcare is too dominated by problem-centred thinking and approaches. There are proportionally too many resources dedicated to the treatment of illness compared with those dedicated to the facilitation and maintenance of wellness. Successfully treating an illness does not usually create wellness. Many educated middle-class people are now actively seeking to live healthy lifestyles and more public policy should promote better health habits to a broader population. Most conversations about health quickly go to the state of hospital and medical services and rarely consider the promotion of wellness services. Public policy should seek to embed in both communities and individuals the capability first to be purposeful future-makers (leaders) of their own wellness and second to be resilient future-takers (managers) in periods of illness. Enlightened health public policy in some places does promote wellness, but generally speaking the balance between problem-centred approaches and mission-directed approaches is still heavily imbalanced in favour of the former.

Imagine ways and wares to make it more mission-directed.

The second problem is that healthcare is over-medicalised. Medicalisation involves pursuing treatments using processes such as surgery and pharmaceuticals when more natural processes such as lifestyle changes and other non-medical approaches can work just as well. There are many

reasons for this, and they include phenomena such as patient resistance and pressure, time constraints (it is quicker to prescribe an antibiotic than to question why a patient keeps on succumbing to infections), professional myopia—as the saying goes, ask a surgeon a medical problem and he will suggest a surgical solution—and the fact that pharmaceutical companies have been seducing doctors for decades to use their particular medical solutions. The encouragement of the use of generic drugs is making a significant difference to lower the cost of medicalised health (problem-centred health) but there is much more to do to substantially de-medicalise health and move towards mission-directed health—which is the realisation of wellness.

Third, illness is currently being overdiagnosed and over defined. Over diagnosis involves diagnosis of a disease that will never cause symptoms during patients' lifetimes and treating them for it. Overdefinition involves lowering the threshold of seriousness so that mild cases of a particular illness are defined as serious and therefore requiring medical intervention. At best, this means the patient is subjected to unnecessary treatment, stress and expense. At worst, they suffer from the side effects of treatment. Two conditions vulnerable to such overdiagnosis and redefinition are the ageing-related problems associated with menopause and male prostate enlargement.

A fourth problem is that healthcare is excessively individualised. Public health—that is community health—in the past utilised a larger proportion of health budgets than it does now. Health policy must swing the balance back towards communitarianism, which is not to say that there is no room for individualism. It should, however, be healthy individualism. I have just discussed the imbalance between the problem-centred illness *treatment* and mission-directed wellness *creation*. By putting these two together we can also develop a concept of healthy individualism—healthy lifestyles—as individual behaviour that creates zero net collateral damage (harm) to self. The promotion of healthy individualism—health lifestyles— should be a major component of public health policy, just as creating sustainable individualism—sustainable lifestyles—that involves zero net collateral damage (harm) to other, should be a major component of public environment policy.

Imagine ways and wares to make healthcare more communitarian, and for the promotion of healthy and sustainable individualism.

Another concern is that the present health system is too modernist in a postmodern/emerging planetist era. Modernist medicine has frequently regarded all the traditional healing arts and sciences that have developed over thousands of years (such as yoga, shiatsu, acupuncture, naturopathy, tai chi chuan and meditation) as inefficacious or even dangerous. While there always should be an evidence hurdle that all illness treatment and wellness-promoting approaches should be asked to clear, many are clearly beneficial and can be demonstrated to be so. Postmodernism involves combining the best of the old with the best of the new and over the past few years medicine slowly has become more postmodern. There are now many centres for the treatment of cancer using both modernist and traditional approaches in a complementary holistic way. This shift in attitudes should be further promoted and unreconstructed modernists in the health professions challenged to have more open minds. Medicine also needs to be better informed by domains of knowledge such as ecology, sociology and anthropology. The view that medical approaches are basically independent of relevant ecological, social and cultural contexts is another manifestation of modernist arrogance, and prevents some very creative approaches from being considered. I will be developing some of these issues later, but before doing this I want to provide a quick overview of the current status of illness in the early 21st century.

The success modern medicine has achieved with different categories of illness is varied. Here is a quick description of the current status in the treatment of illness. It is necessary to consider this if we are to develop better results in the future. Illness can be divided into:

1   The physical infectious illnesses caused by bacteria and viruses, such as pneumonia, tuberculosis, chickenpox and so on, which humanity has long been subjected to. These are decreasing because of the widespread use of antibiotics and vaccination; and this, combined with better nutrition, is extending lives. However, increased global travel and mutation by disease-causing microorganisms are constantly threatening to spread disease and place these gains under further pressure.

2   Zoonoses. These are illnesses transmitted to humans from other species such as birds, pigs, primates and bats. Many are transmitted by pathogen vectors like mosquitoes, lice, rats, bats and fleas. They include diseases such as avian influenza virus subtypes H5N1 and H9N2, Ebola virus disease (EVD), Dengue fever, Lassa fever, Hendra virus, and HIV/Aids. These are rising as natural habitats are increasingly invaded by humanity. In Cameroon, for example, diseases such as the simian foamy virus are infecting humans because of an increase in the killing and eating of primates, thereby creating a potential simultaneous health and environmental crisis.

Here the most effective response will be informed by ecological, sociological and anthropological not medical insights. Of the 1415 pathogens known to affect humans, 61% are zoonotic. Vaccines are being developed for many of these zoonoses, but many can be prevented through human ecological, social and cultural approaches rather than using more expensive medical approaches.

3   Autoimmune illnesses (e.g. diabetes 1, MS, Huntington's, Lupus, Parkinson's, rheumatoid arthritis). These should significantly decrease, with big gains against them expected in the next ten years. Progress has been achieved because of major gains in neuroscience, immunology and proteomics, and through our knowledge of the human genome. There is also the promise offered by the use of stem cells to repair and regenerate tissue damaged by autoimmune disease.

4   Cancer. Due to improvements in treatment originating in our increased knowledge of the human genome and breakthroughs in proteomics and immunology the prognosis for most forms of cancer is likely to improve and there will be major reductions in cancer related mortality over the next twenty years. Over a longer time cancer morbidity will also reduce slowly as we come to understand cancer better. We can identify particular genes and particular proteins related to many cancers and therefore very specific sustainable medical solutions are becoming possible. In ten years chemotherapeutic treatments will significantly lessen, as we can look forward to the day when all treatments and prevention regimes will be based on biological not chemical approaches. We are finding better ways to target particular cancers using naturally occurring processes. In twenty years many cancers will be curable and major progress will have been made in their prevention by gene therapy and alterations to lifestyles.

5   Lifestyle illnesses such as hypertension and type 2 diabetes. These are showing very few similar gains. Many of these cannot be reduced in terms of morbidity and mortality by more medicine and more hospitals. However, lifestyle diseases can be reduced in both frequency and magnitude by behavioural changes. The middle class and the rich are in the process of creating healthier lifestyles for themselves. However, many poorer people are not making similar improvements, largely because they do not have the same resources and are not as dedicated to self-improvement as most members of the middle class are. In many of these diseases new ecological, sociological and cultural approaches might significantly improve outcomes.

6   Environmental illnesses, which include continuing health hazards from electromagnetic radiation and nuclear radiation, and the resurgence of some traditional diseases such as malaria and dengue fever because of changes to the environment brought about by global warming. These are generally being reduced through the creation of cleaner, healthier environments, including those with fewer environmental hazards. However, there are some areas that are of increasing concern. In the main the policy response should be directed to creating health-promoting environments and promoting behavioural change that lessens human contributions to and contact with environmental hazards. Many of the greatest achievements in public health have been through the creation of human environments that are less hazardous.

7   Mental illnesses. Progress in meeting the challenges of mental illness and wellness has been, by comparison, disappointing. We should be advancing more rapidly because of advances in our knowledge of the human genome and in neuroscience and proteomics. The theoretical base of knowledge that informs our understanding of mental illness is poorly developed. Too many of the treatments used to deal with mental illness are still based on empirical evidence—we use it because it seems to work even though we don't know why—rather than on a strong scientific theoretical base such as that which informs breakthroughs in the treatment of cancer and autoimmune disease. We should even consider whether we should keep a separate category of 'mental illness'. Most mental illness is likely to be caused by physiological/biochemical brain dysfunction just as brain-related physical illnesses such as Alzheimer's disease, encephalitis, stroke, and physical autoimmune diseases such as multiple sclerosis and Parkinson's disease are caused by physiological/biochemical brain dysfunction. It is quite possible that while the symptoms of various mental and physical diseases that are based on brain dysfunction might differ significantly at the clinical level, the difference might be small at the cellular or molecular level. They are all variants of brain disease and perhaps we should regard all of them as brain disease just as we refer to liver disease, muscular disease, heart disease or kidney disease.

Traditional classifications of disease around parts of the body (e.g. diseases of brain, liver, stomach, heart etc.) or even by disease kind (e.g. mental, autoimmune, infectious disease) have probably also passed their

use by date. As our knowledge of the molecular basis of disease grows an even better system for the future could be to categorise all disease by molecular criteria rather than by these older categories. Different diseases infecting different body parts, or ones that are regarded as diseases of a different kind, might be very similar at the molecular level. As our knowledge of disease differentiation and similarity at molecular level increases there are obvious advantages to consider all diseases by their molecular characteristics rather than their symptoms, disease sites or other clinical factors. A molecular approach would bring together diseases that are likely to be treated successfully by similar or common molecular based approaches.

HEALTH, ILLNESS AND WELLNESS

Health is more than absence of illness. If somebody is not ill are they *well* or are they actually merely 'un-ill'? This is not a theoretical question. Do you have a clear view of the difference between illness, un-illness (which is the actual state of people who have just recovered from illness) and wellness?

The 'healthcare' industry is a problem-centred industry and focuses on treating illness, not creating health. It is really the 'illness treatment' or the 'illth' industry.

Creating *well*ness does not primarily involve the medical ('healthcare') industry but the action of purposeful individuals and communities, supported and serviced by the now-extant wellness industry.

Wellness involves both maintaining wellness (wellbeing) and improving wellness (well-becoming). It is a rapidly growing 21st century industry. It links fostering and facilitating healthy lifestyles, sound nutrition, good relationships, health promoting environments, enjoyment and happiness, exercise in all its forms from sport to yoga to dance, and bliss creation and joyfulness in all its forms, into a single holistic industrial sector. The emphasis in health in the next generation will increasingly shift to creating wellness rather than treating illness. In the next generation the medical industry will increasingly lose control over health, not because it is less important but because it only deals with a part of the health sector—the treatment of illness.

The words 'primary healthcare' now mean a visit to your GP, the first port of call for treating illness rather than seeking to prevent illness and create wellness. The size of the 'healthcare' budget and even the 'aged care' budget is now an index of society's illness rather than wellness, and of our capacity to pay for such services. In developing countries access to healthcare and aged care is totally inadequate, but 'healthcare' everywhere is modelled on western 'healthcare' models that are well beyond the capacity of many developing countries to fund. More of the same is not an option. It will blow out costs to unacceptable levels and while it will improve the treatment of some forms of illness it will be unlikely to improve others. As we did with

education, discussed in the last chapter, we need to rethink illness, wellness and aging to create a more relevant approach to all of these. We need some concepts, new ideas, new visions and new strategies.

The situation is similar with ageing. A reaction to the over problem-centred and excessively medicalised view of aged care is now under way with an increased public demand that support be provided in the home while older people remain well enough to be successfully supported in their own homes. Indeed, it could be claimed that the emphasis on the use of nursing homes is actually a problem caused by the redefinition of the frailty of ageing as illness. It is also excessively modernist in that it does not recognise sufficiently the cultural and social issues of ageing. In most traditional societies many aged people were regarded as elders, and they played a major social role in their communities. We threw out elderhood in our rush to modernity, just as we eliminated initiation as an irrelevant archaic activity. We are now paying a high price for our modernist arrogance. The nursing home of today even could be regarded as a halfway house to a hospice, because people are taken out of the community and institutionalised in a situation where they remain isolated from the community for the rest of their lives. If we want to transform ageing for 21st century success, there needs to be a significant reconceptualisation and rethinking of ageing, and I will discuss this further shortly.

POSTMODERN/PLANETIST APPROACHES TO HEALTH

I have already described how we can go forward and create more 21st century-relevant outcomes in education by going back to the future and bringing back initiation and rites of passage. This is postmodern education in that we are seeking to appropriate some past approaches and reintroduce them in a new context in the future. I have already suggested that modernist approaches still dominate healthcare so we need to contemplate a similar conscious postmodernisation of health and redesign it so it is compatible with the emerging planetist future. This is happening slowly but it could and should be consciously conceptualised and directed this way in a process of purposeful future making guided by a preferred future vision of planetist health. I will now provide two examples of this.

First, I want to illustrate this by focusing on two 21st century scourges, obesity and type 2 diabetes. In the short review of illness above I noted that the medical system has failed to meet the challenge posed by the ballooning of the morbidity of lifestyle-related diseases such as type 2 diabetes and obesity and other eating disorders. Clearly obesity is a massive problem in the developed world and it is increasingly one in the developing world as well. Even more incredibly, it is often associated with poverty rather than wealth. Well off, educated middle class people have a strong commitment to self-improvement, which includes seeking better health, greater beauty
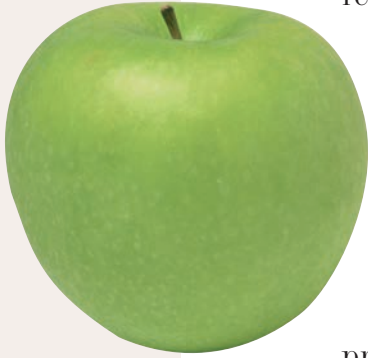
and higher achievements in their learning. Fewer of their poorer kin show a similar commitment to doing the same. While the medical sector can no doubt contribute marginally, it will be from the wellness sector that adequate responses will be found to meet the challenges posed of lifestyle-related diseases such as obesity and type 2 diabetes. Obesity, for example, can be related to lack of maturity and the related unwillingness of people to accept self-responsibility for redesigning and redirecting their own life paths as well as lack of knowledge of good nutrition and an addiction to sugar and fat. The conscious promotion of maturity through a reintroduction of initiation at puberty could make a significant difference. In the last chapter I suggested that during initiation there could be an emphasis placed on the promotion of both healthy lifestyles and sustainable lifestyles. In programs to modify lifestyles it is not sufficient just to implement a problem-centred medical dominated strategy to overcome a lifestyle-related illness. The current problem-centred response too often lets people first become obese and then diabetic, and they often finish up on expensive kidney dialysis until their death, unless they are lucky enough to receive a kidney transplant. Certainly in the future we will be able to use stem cells to enable people to grow their own kidneys for themselves, but such a future-taking response is clearly not the best way to go when a less painful, less traumatic and less costly future-making preventative response is possible.

So let us go back to the future again and examine how traditional ecological, social and cultural approaches could be reintroduced in a postmodern program to deal with obesity and type 2 diabetes, and let's consider how this might be done in the indigenous cultures of Micronesia, Polynesia and Australia, where there has been a catastrophic explosion of obesity and type 2 diabetes. These peoples lived in and adapted to an environment of alternating plenty and famine. Melanesians on the other hand are not as vulnerable to obesity and type 2 diabetes because they have adapted to live on larger tropical landmasses that are ecologically highly productive and do not tend to suffer from extremes of food abundance. Micronesians, Polynesians and indigenous Australians increase their weight in times of plenty and then can lose significant body weight during periods of famine and still survive. Unfortunately, the physiological adaptation that was an evolutionary advantage then has become a disadvantage in an environment of continuous plenty. Our response has thus far been medical. However, we could create health in these communities by mimicking the ecological and cultural conditions of yesteryear. Such a program could include the conscious adoption of 21st century equivalents of traditional patterns of fasting, food consumption patterns and levels of exercise, and within a context of broad community support and utilising cultural and social ritual. Incidentally, it is possible that periods of fasting such as occur

in Ramadan and in earlier times in Lent as well, were cultural/ecological processes designed to improve community health and survival. They were possibly purposefully embedded in religious processes to ensure their adoption and long-term continuation within a context of broad community support and collaboration through shared rituals. Many community food consumption patterns have been shaped by community-binding cultural, social or religious restrictions. It is likely that many of these were designed to ensure long-term community wellness. For example, religious bans on eating pork and beef were probably designed to avoid infection by tapeworms.

Modern medicine has produced many miracles, but the elimination of many traditional approaches has also lessened our capacity to successfully create community wellness. There is an argument that ecology, anthropology and sociology should be taught to medical students, and that many medical discussions should be placed in an ecological, social or cultural context.

Second, I want to comment on the place of alternative (or complementary) approaches to healing and wellness in 21st century health creation. I am a yoga and meditation practitioner and teacher and have been for several decades, plus I have a professional background in the physical and biological sciences. Both have informed my life and the way I look at health and wellness. A significant area of disagreement exists within the health industry on the place of non-medical approaches to healing and wellness. In my initial discussion about postmodernity I used as an example the role of traditional wellness arts and sciences. I suggested that postmodernity has permitted many traditional approaches to treating illness and creating wellness to enter the health mainstream after being regarded as 'quackery' in modernist times. It has often been claimed that there is little or no evidence to prove the efficacy and safety of many non-medical approaches to healing and wellness creation such as yoga, qigong, naturopathy, homeopathy, acupuncture, shiatsu, ayurveda and tai chi chuan. What is not in dispute is that there is evidence that at least some of these practices are effective. Many practices in allied health including physiotherapy and pilates has been directly influenced by traditional practices such as yoga. Meditation can significantly improve one's health, including significantly lowering blood pressure. Many other examples could be given. It is very postmodern to create a personally customised healing solution for yourself by combining scientifically based medical treatments with culturally based traditional healing and wellness creation. Those who show intolerance for treatments that are not what they regard as evidence based are being unreconstructed modernists in a postmodern, emerging planetist world. These people should have more respect for the old and traditional and spend more time trying to understand how these diverse approaches to health creation evolved. The people who created them were not ignorant or stupid. The fact is that many of these traditional practices

are based on centuries of empirical observation. Many scientific advances originate in an empirical observation of a causal relationship, and it is often a long time before a solid scientific based explanation for such an effect can be established. Many current approaches for the treatment of mental health are based on such empirical observations and without any understanding of the basic science: 'we know it works but we don't know why' is the standard statement. So my plea is that intolerant modernists should be a little more postmodern and keep an open mind. On the other side, if it becomes evident that some treatment is ineffective or even dangerous it should of course be banned.

We should be seeking to embed postmodern and planetist approaches in all our health programs and do away with the remnants of modernist approaches. We should be encouraging people to become purposeful future-makers of their own health who are supported in their endeavours by their communities and by public policy. Each person and community can and should be encouraged to create a preferred-future vision of future wellness and a mission-directed strategy first to become well and from then on to maintain wellness.

Imagine ways and wares to improve healing by nonmedical approaches including:

- Traditional practices such as yoga, shiatsu, meditation, naturopathy and acupuncture
- Therapeutic counselling services such as positive psychology, aversion therapy and neuroplasticity
- Self-transformation processes such as self-management (to realise resilient future taking) and self-leadership (to realise purposeful future making).

STRESSORS AND MELIORS

All humans are at any time on a continuum between a state of distress and its opposite—let us call it a state of bliss. Stressors are those experiences that tend to move the individual or group towards one end of the continuum—towards a state of distress. We suggest that, in our attempts to describe or analyse human situations, we should pay as much attention to those experiences that can have exactly the opposite effect to stressors, and that push the individual towards a state of bliss. We call these experiences meliors.

> The position of the individual on the distress—bliss continuum is largely a function of the balance between meliors and stressors in her or his life experience.
>
> Stephen Boyden and Megan Shirlow, p. 33, 2020:
> *A sustainable healthy future*

As part of becoming well (well-becoming) and staying well (wellbeing) we should use meliors more often to ameliorate the effect of stressors. To achieve this you can:

1. Identify your meliors by asking, what are the activities that make me feel happy/serene/blissful and in control of my life?
2. Assemble these meliors into an imaginary kitbag and add them to, and remove them from, your kitbag as appropriate over time.
3. Create 'melior time' as a regular part of your normal day's activities to ensure that you regularly use a variety of meliors to increase bliss and ameliorate the impact of stressors in your life.

Imagine the contents of your own kitbag of meliors and the ways and wares you would use to practise them regularly. Imagine all the world's peoples doing the same and the contribution this might make to creating universal wellness, intercultural and interreligious harmony and global peace building. Imagine the world media and the internet being a major catalyst of this transformation.

PUBLIC POLICY FOR CREATING A SUSTAINABLE AND SUCCESSFUL 21ST CENTURY HEALTH SYSTEM

If you were given the task of envisioning and constructing a sustainable and successful public health system from scratch:

1. What would be the core components of such a vision?
2. What would be the core elements of a strategy to realise such an outcome over ten years?

Below is my list of core components. A sustainable and successful health system:

1 Maximises universal access to illness treatment and wellness services

2 Encourages and enables people to be responsible for maintaining and improving their own health and rewards them for doing so

3 Ensures providers promote interdependence and mutual obligations between themselves and their clients/patients

4 Facilitates clients/patients to fully understand their current illness/wellness status and sees that they are provided with information and guidance to enable them to make informed choices about what illness/wellness service they should seek next

5 Discourages overuse of medical resources by patients and doctors

6 Enables hospitals to concentrate on healing because they are not required to act as de facto nursing homes and community care centres

7 Advocates postmodern integrated health models that incorporate intercultural medical and wellness knowledge (e.g. ayurveda, yoga, reiki, shiatsu, tai chi chuan) into illness treatment and wellness creation to maximise consumer choice and healing effectiveness

8 Provides postmodern illness and wellness services customised for each cultural and social context

9 Promotes a balance between community and environmental health services on the one hand and individual health services on the other

10 Uses the capping of claims to minimise total costs to the community and medical providers caused by excessive individual litigation against health and community service providers

11 Ensures the long-term financial viability of health insurance and health financial services by encouraging their diversification into other areas such as wellness services (e.g. gymnasiums, health farms, personal trainers, yoga classes)

12 Is future-oriented and uses intelligence, surveillance and vigilance to be future-resilient against emerging health hazards, thereby protecting communities and individuals to the maximum possible extent from epidemics and pandemics

13 Provides maximum protection from hazardous drugs by appropriate and consistent legal policies and programs which minimise harm to individuals and the community and the

involvement of organised crime in drugs, including the use of selective legalisation that ensures effective control of their use

14 Promotes healthy lifestyles using education and the media

15 Realises the wellness of an ageing population by encouraging longer working lives, shorter working weeks, new community roles for the aged and better adjustment to ageing.

What would be in your list and what strategic actions and ways and wares would be needed to realise it?

AGEING

Most developed countries have societies that are ageing, often rapidly. Are they ageing successfully? Probably most people would say *no* or *perhaps*, but certainly not yes! Most cultures in developed countries simply focus on what is euphemistically called 'aged care': the problem-centred provision of medical and nursing services to ill, infirm and disabled elderly people. This is but a small part of what should and could be an adequate response to demographic ageing.

ENVISIONING AND REALISING SUCCESSFUL AGEING

There is no vision of what an optimal ageing society could or should be. Future-taking rather than future-making modes of thinking dominate our discourse and actions relating to ageing.

The way we deal with ageing is the way we deal with most things in cultures dominated by problem-centred thinking. We look at the emerging problems caused by ageing and then seek to eliminate or abate them. This will merely create ageing that is less unsuccessful, not successful. Just as wellness is more than an absence of illness, and sustainability is more than an absence of unsustainability, successful ageing is more than an absence of unsuccessful ageing.

So what *would* a vision for successful ageing look like and what would be the core elements of a vision and a strategic action plan to create successful ageing? The first thing that should be noted is that a program for successful ageing should include visions and strategic actions at both the level of the individual and the level of the community. Successful ageing for individuals will occur if older people:

1 Are purposeful future-makers as well as resilient future-takers, able to take time to undertake destiny, destination and derivation dialogues to decide how to spend their lives as productively and happily as possible.

2 Review and reposition their work—doing what gives meaning to one's life—and, if they wish, turning this into either part-time or full-time employment.

3 Have a clear vision of their preferred legacy: what meaningful gift they would like to bequeath to future generations. This assists the aged to define an expanded role for themselves as elders or mentors.

A useful means for us to begin the process of imagining successful ageing as a whole is to consider one significant part of it—what we could call *Indian Summer Adulthood* (ISA), the name I have given to the period after the end of full time work where one is still able to live a fully independent life. This period can now last for several decades and remarkably little thinking has gone into envisioning how this part of life could become richer both for aged people and the society in which they live. Until recent times our thinking about this ISA period has been totally dominated by medical models. There is virtually no discussion anywhere about what might constitute appropriate public policy for this significant cohort. In the next decade public policy should be directed towards ensuring ISA people are able to live fulfilled lives through a personally customised mix of part-time work and recreation, contributing to national wellbeing when they wish to through part-time paid and volunteer work while maintaining their own economic self-reliance through superannuation and part-time work if they wish to continue working.

Among the roles ISA people could play are expanded social/community roles and mentoring of the young in initiation or transformation into adulthood programs in secondary schools. In brief, this is the time when we should also reinvent elderhood as well as bring back initiation. There should be an expanding role for elders as mentors in workplaces, schools and communities.

Imagine elders working with prisoners, newly arrived refugees and disabled people, to name a few instances, to assist them to plan and build successful 21st century career and life paths and to achieve successful inclusion in communities. Imagine two new qualifications: one a certificate to record the successful transformation from childhood into adulthood, and another to record the certification of elderhood.

The potential benefit of a national program of workplace elderhood/ mentoring could be immense. A great deal of knowledge and wisdom walks out through the workplace door when people retire. Data and information might remain behind in the organisations' databases but not knowledge and wisdom. There already is an embryonic cohort of workplace elders— consultant wisdom workers—who are assisting stretched workplace management and leadership to become more resilient future-takers and more purposeful future-makers. I know of many organisations that are seeking the means—the ways and wares—to ensure that acquired knowledge and wisdom remains available to them through workplace elderhood/mentoring.

Indian Summer Adulthood should also be a time for people to pursue long-postponed aspirations, create pathways to new interests, build new relationships, and identify and access new meliors to improve their wellness. As one ages one should continue to adapt and change and a continuing re-envisioning of one's preferred future/possible future pathways should be part of this process. The ability to live the lifestyle of earlier years is increasingly tested. But while some doors might close because of disability and/or disadvantage, other doors can be identified and new directions of personal development and fulfilment can be charted and travelled. If such new purposes are not clearly found and realised ageing is not likely to be successful.

Public policy could be built on such a process: where all people accept responsibility to create successful ageing for themselves while communities support them to realise it, and businesses provide the ways and wares, and the opportunities as well, to enable the aged to achieve it.

This should be a priority in all cultures experiencing ageing. Once a conceptual framework and vision has been created it will be possible to imagine and create successful ageing ways and wares.

Imagine Indian Summer Adulthood ways and wares that provide:

- Aged and disabled worker support enabling such workers to stay at work after the formal retirement age should they choose to do so
- Effective working from home or from wherever an aged person is—including mobile offices for grey nomads
- Mobility for the aged that enables mobility equivalent to that experienced in middle age

- Healing and wellness for the aged delivered where possible at home
- Shopping from home with home delivery
- A wide variety of home services for fulfilled living for aged people
- Learning, both professional/vocational and general, customised for aged people.

Clearly many of these are already in the market, demanded as they are by the rapidly growing market for goods and services customised for ageing people who want to live more fulfilled lives. The explosion in online and on-mobile marketing and trading is making it possible for even relatively immobile aged people to access many products and services, by means that were unimaginable even ten years ago. The baby boomers generation is one of the generators of this retail transformation because they have such a considerable collective market clout.

However, again it is important that there be a coherent vision and strategy for realising successful ageing. As I mentioned earlier, many of these ways and wares will be robotically based ways and wares. I have already discussed how labour productivity must increase through the use of automation in societies that are ageing. And the provision of robots and other forms of automation that enable the aged to live fulfilled lives will be a huge component of our industrial future.
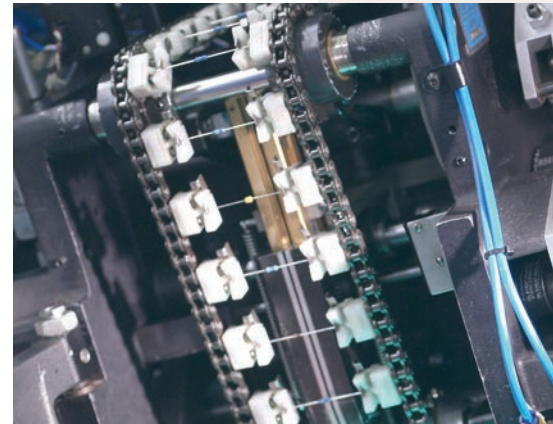
During Indian Summer Adulthood more and more people travel and become tourists and pursue other activities they have yearned to do for years. Grey tourism and grey nomadism generally are now major components of tourism business. A considerable amount of it would be categorised as aged customised ecotourism and cultural tourism. What does travel/tourism customised for ISA people look like?

What new grey tourism ways and wares can you imagine? Remember that people tour for three major reasons. To:

- Appreciate nature
- Appreciate culture, and
- Find and create wellness.

People holding planetist values are motivated to explore all three of these more completely than their modernist counterparts. They are more sensitive to the magnificence and vulnerability of nature, understand that cultural difference is something to be treasured and explored, and that from across cultural boundaries we can appropriate healing and wellness ways and wares for our own use. The aged can also become the providers of intercultural wellness services as well as being consumers of them. Imagine a coterie of aged martial arts, tai chi chuan, yoga or shiatsu masters and the social role they might play in the creation of wellness. I am a yoga teacher myself and not only do I love to practise it as I have done for forty years, I love to teach it as well, which is what I do. One form of planetist tourism that is booming in the early 21st century is the cruise industry, which is replete with visits to prized ecological and cultural sites, with special attention being given to on-board learning and wellness, including the provision of an abundance of on-board meliors.

Imagine nature appreciation/ecotourism ways and wares, culture appreciation/ cultural tourism ways and wares and wellness, wellbeing and well-becoming ways and wares.

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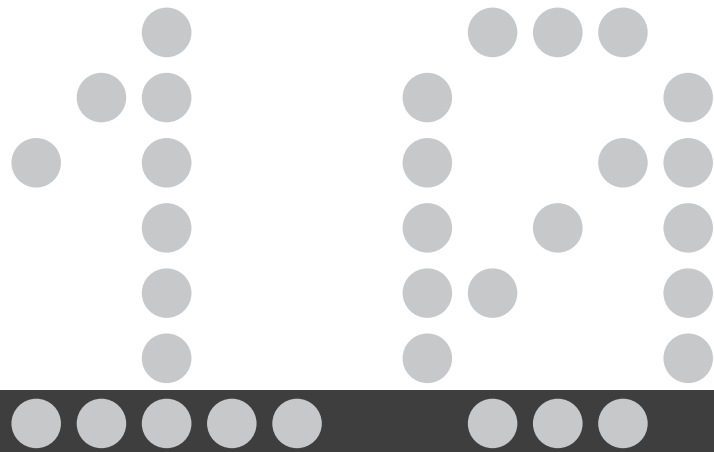
Technology toolkits for
21st century ways and wares

THIS BOOK is full of comments on the changing role of technology and it is appropriate that I spend a little time on it even in a relatively short book, as this one is. I have mentioned earlier the respective views of Karl Marx and Max Weber on the relationship between technology and society and I will not repeat my comments here. However, it is important to remember this difference of viewpoint, for I believe that too many people always see technology as a causal change agent, when it is often a response to socially driven change. In *As Time Goes By*, Christopher Freeman and Francisco Louçã, who I believe have a foot in both camps, maintain that there are five transforming generic technologies that have helped to shape society and which have increased economic prosperity over the last two centuries: water-powered mechanisation, steam-powered mechanisation, electrification, motorisation and computerisation. In this century a large proportion of the new wares and ways that will be developed to supply emerging planetist markets will use the following four current generic technologies: digital technologies, bioscience/biotechnology, nanoscience/nanotechnology and new materials sciences/technologies.

DIGITAL TECHNOLOGIES

Digital technology involves the conversion into a common digital language of all the products of human creativity: writing and language, the visual arts, music and sound, the performing arts, film and video. This facilitates both the synthesis of these forms of current creative expression and the creation of new forms. This digital content is being embodied in the work of designers, planners, architects, engineers, medical researchers, economists, social scientists and natural scientists. It enables the transmission of these synthesised digitised products around the world through a coalescence of cyber technology and the communications technologies. New digital technology products and services can now be sourced and leased or bought as needed just-in-time and just-when-needed from virtually anywhere on the planet through cloud computing. And we can store our own knowledge, creativity and work in the cloud to access it just-in-time. Digital technologies are facilitating the realisation of our interdependent global society and the fulfilment of humanity's realisation of McLuhan's imagined global village in the early 21st century. They are helping us communicate more effectively, find and share information and knowledge, initiate and nurture relationships, make decisions, and learn more and better irrespective of where we live.

By 2050 digital technology will be based on the more versatile carbon atom rather than the silicon atom and will therefore become more brain-like. It will be increasingly influenced by bioinspiration and biomimicry. Ecosystem behaviour and design is already shaping digital research. When it is carbon rather than silicon based, digital technology will become even more influenced by the lessons we learn from nature.

Incidentally, some people fear what's called the 'singularity'—the moment in the future when we create an artificial intelligence that can outwit our own intelligence. I am not one of these for we humans have many forms of intelligence. In his book *Frames of Mind* Howard Gardner identified seven of them. The first five are linguistic intelligence, musical intelligence, logical-mathematical intelligence, spatial intelligence, and bodily or kinaesthetic intelligence. Gardner also identified two of what he called 'personal intelligences'. One is inward looking, providing access to one's own feeling life. The other looks out and consists of the ability to notice and make distinctions between other individuals. We would now regard these last two as two forms of emotional intelligence—as intrapersonal and interpersonal emotional intelligence.

It is always dangerous to say 'never' but this complexity of intelligences is still a long way ahead of our gains in growing artificial intelligence.

BIOSCIENCE AND BIOTECHNOLOGY

The biotechnology and bioscience revolution is a result of our increased understanding of the human genome and the genomes of other species. It is also a result of our increasing knowledge of neuroscience and immunology. These enable us to understand how organisms resist hazardous threats, either external like viral and bacterial infections or internal like an autoimmune disease or cancer.

To these two we can add the science of proteomics—this word is a synthesis of protein and genomics. It is the science at the core of bioscience and biotechnology that seeks to understand how genes are expressed through genetic information into biological processes of all kinds. Critical to this is the transcription and translation of genetic information into the synthesis of proteins. Proteins are the critical building blocks of life both as structural proteins, such as in muscle and skin, and together with their smaller versions peptides, as enzymes and hormones, which are the catalytic organisers and controllers of all physiological and biochemical pathways. These proteins and peptides when they act as enzymes and hormones have very specific functions and one of the marvels of life is how the are produced JEPT, just-enough-in-place-and-time, to do very specific tasks. Bioscience and biotechnology seek to enable us to intervene in biochemical and physiological processes so we can prevent

and cure disease. They also seek to transform biological processes like photosynthesis, respiration and protein synthesis to produce new products and sources of energy.

Bioscience and biotechnology are widely used in medical research such as in neuroscience, where they are used to study the causes of many diseases such as the autoimmune ones and mental illnesses like bipolar disorder and schizophrenia. Proteomics is also at the core of most cancer research. Bioscience and biotechnology are also being used in plant and animal breeding and will increasingly be used to bring highly endangered species back from the brink of extinction. The possibilities of the bioscience and biotechnology revolution will be limited only by our imagination.

There is also a new coalescence beginning between bioscience/ biotechnology and the next generic technology—nanoscience and nanotechnology.

NANOSCIENCE AND NANOTECHNOLOGY

Nanotechnology involves the miniaturisation of processes down to molecular level. A nanometre is a billionth of a metre. At this scale nanotechnology can operate on molecules directly for its tools are of the same scale as the molecules they are manipulating. Here systems also behave in a different way from the way they do when their scale is larger, obeying quantum rather than Newtonian behaviour.

The creation of nanorobots (or nanobots) will be at the core of nanotechnology over the next decade. These are robots that work at the nano scale to reshape and change molecules. The door is opening to extraordinary possibilities such as repairing malfunctioning organs in the body.

Nanotechnology can be used to create many new materials and devices and has a vast range of applications in fields as diverse as medicine, agriculture, electronics, environmental remediation and energy production.

Biotechnology is in fact an organic nanotechnology that utilises natural biological processes, so nanotechnology can be organic or non-organic or a combination of the two, and it can be combined with other technologies such as ceramic materials technology.

MATERIALS SCIENCE AND TECHNOLOGIES

Scholars have been able to label previous eras according to their use of one particular material—so we talk about the stone age, the bronze age, the iron age and so on. This will no longer be possible because we now have so many materials and we are steadily inventing more of them and giving them new purposes as well. In the early 21st century we have industrial ceramic materials, carbon-based materials such as polymers and carbon fibres,

biomaterials, semiconductor materials, metallic alloys, silicon materials (as in chip technology), magnetic materials and medical implant materials.

Moreover, a combination of digital technology, laser technology and new materials technology is now creating still another revolution: this is additive manufacturing or 3D printing. This is a manufacturing process that produces three-dimensional objects from a digital file. It does so by extruding or 'printing' carbon-based materials such as nylon, metal or glass powder in layers from a nozzle under the guidance of the computer-controlled lasers at the heart of the 'printer' until the object is finished. It is called 'additive manufacturing' to distinguish it from the old style 'subtractive manufacturing', which tends to involve taking material away by drilling and cutting and so on. Neil Hopkinson, an English specialist in the field, tells us, 'It could make off-shore manufacturing half way round the world far less cost competitive than doing it at home, if users can get the part they need "printed off just round the corner at a 3D print shop on the high street". Rather than stockpile spare parts and components in locations all over the world, the designs could be inexpensively stored in virtual computer warehouses waiting to be printed locally when required.'

Another future for 3D printing is its potential for use in organics to make, for example, new body components of increasing complexity. We can already make new blood vessels for ourselves from our own tissue. It is only a matter of time before we will not require a transplant for an ailing body part because we can construct another for ourselves from our own tissue, through the use of either or both stem cell biotechnology or additive manufacturing.
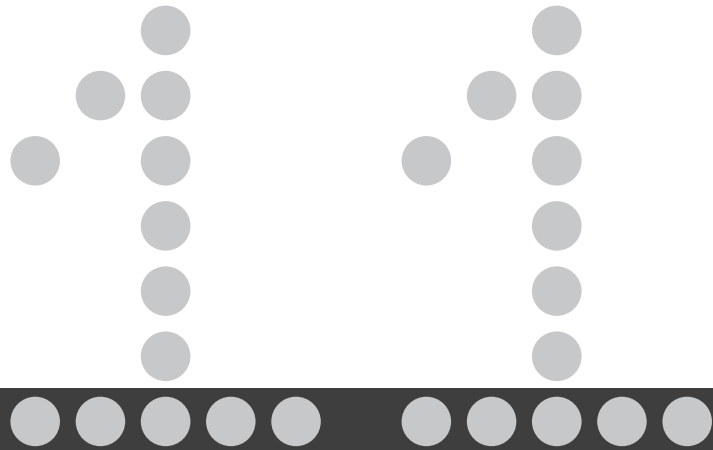
Communities and community futures

HAVE USED THE WORD 'community' a great deal in this book, including discussing communitarianism and individualism, how communitarianism is a form of multilateral interdependence, and how individualism is changing because our individual behaviours need to recognise and respect the needs and rights of community. And this 'community' might be a family or the whole planet. I have discussed how individuals or entities such as corporations or nations need to act in ways that cause no net collateral damage (harm) to the community of which they are part. I have described this behaviour as sustainable individualism, in contrast to no net collateral damage to self—healthy individualism. Now I want to explore community in more detail. The word 'community', which originally was based on location, now has several meanings. Here are three kinds of communities:

LOCATIONAL COMMUNITIES

These, the original form of community, are bonded because their members live together in the same location. With some exceptions, throughout most of human history until the industrial revolution this was what we meant by community. Communities were bonded by a shared location, a shared culture, and the glue provided by the extended families that were the primary building blocks of social organisation in these communities. From the late eighteenth century onwards, as the industrial revolution grew, extended families began to break up as the nuclear units within these families left to seek opportunities in industrial towns and cities. First these migrants went to industrial towns within the same broad culture. However, over time both individuals and nuclear families began to seek opportunity in the towns of different cultures. Today there are minority communities embedded in virtually every city in the world.

Nowadays locational communities can be like a set of Russian matryoshka dolls with each one being part of a larger one. Some of our communities can be: our home, our neighbourhood, our suburb, our workplace, our city, our nation or our planet. These communities are for the most part inward looking. Sometimes our loyalty to these various communities might cause conflict and we must then choose to which community we should give our primary allegiance. For example, we might live in a town with an industry that is significantly contributing to global warming. But as a member of the planetary community we also recognise that if the planet is to thrive we might have to close or transform such an industry. This kind of ethical dilemma is confronting more people more often.

EXPERIENTIAL COMMUNITIES

These are bonded by shared heritage or experiences, including shared past traumas or successes. We might belong to a community of ex-students of a school, veterans who served in a war together or supporters of a particular football club. Experiential communities have spread everywhere in the early 21st century. Cultural and religious diasporas, such as Romani, Jews, and the overseas Pakistanis, Turks, Chinese and Irish, are experiential communities. In a rapidly globalising world these communities are growing massively, often driven to emigration by shared oppression or insufficient opportunity in their original home. Unlike earlier generations who faced intercultural intolerance when they migrated, globalisation is making this possible, for intercultural tolerance has reached the point where immigrants have a better than reasonable chance of being accepted in the home of a different culture. These communities are communities within communities and in most cities there are many of them cohabiting together with varying degrees of harmony and hostility. These communities are also for the most part inward looking as well, but to thrive they must also relate successfully to, so that they can live successfully within, the larger communities of which they are part, and other experiential communities with whom they share their location.

ASPIRATIONAL COMMUNITIES

Aspirational communities are bonded by shared aspirations and goals. They are bonded because they have a common cause or a shared vision of the future. All movements for social change, all environmental groups and all businesses wanting to improve are aspirational communities. Members aspire and collaborate to realise a shared preferred/possible future and are not happy to settle for a probable future of more of the same. These communities are for the most part outward looking communities.

Naturally it is possible and now even common to belong to more than one of these communities as well. Experiential communities and locational communities are functionally future-taking communities. Aspirational communities are future-making communities. If a locational or experiential community is in decline with a discouraging or threatening probable future, it can transform itself into an aspirational community seeking to envision and realise a preferred/possible-future. Really successful communities can be both experiential and aspirational communities, or both locational and aspirational communities simultaneously, or even all three of these.

COMMUNITY AND ORGANISATIONAL FUTURES

As globalisation continues and interdependence grows, 21st century national governments are slowly losing their capacity to influence what communities and organisations within their jurisdictions can and can't do to shape their own future. Around the world the nation state is in long-term decline because of the combined impact of globalisation, tribalisation and increasing technological connectivity. Even if they are surrounded by indifference or hostility all communities can chart pathways to success because a single global market for goods and services is now available to all who want to enter it. If a community has good connectivity, a future-making mindset and uses the six tools of future shaping, its members can create 21st century relevant products and services at competitive prices so that they can create prosperity for themselves by trading with the world. All communities and organisations can now thrive by globalising themselves, with or without government support.

This realisation is particularly important for rural communities, which are struggling everywhere. For most rural communities the industrial base has changed little in 100 years. The majority still export food and fibre with little value added. Most 20th century innovations were born in, and stayed in, cities and this is why cities are flourishing more than rural areas, and this development/prosperity gap has further increased through the uptake of global connectivity by urban areas ahead of rural areas. The most motivated and entrepreneurial young people emigrate to the cities because their future aspirations are unlikely to be met in rural/regional communities, and this is particularly so if they are seeking 21st century-relevant career paths and education. In 2008 the global number of people in urban areas surpassed the number of people in rural areas for the first time in human history. However, both regional and community sustainable prosperity can be based on combining local destiny (local aptitude + passion) and local physical resources with a 21st century-relevant knowledge base (a knowledge domain) that is a metaphysical base for wealth creation. This knowledge domain should be continually developed in order to keep it at the cutting edge and it should be taught in local vocational and other tertiary education institutes so that it becomes a part of the community culture.

Some of the knowledge domains that could provide a metaphysical underpinning for the creation of future rural or regional prosperity are: climate related knowledge such as tropical, Mediterranean or desert

knowledge; tourism knowledge; wellness knowledge; water management knowledge; mining knowledge and food processing knowledge.

Here are some of the strategic actions that could be undertaken to revitalise struggling communities, including rural and regional communities:

1   Developing a *preferred future* strategic vision and *mission-directed* strategic action plan to realise sustainable prosperity in a planetist 21st century
2   Establishing a leadership and enterprising culture dedicated to the realisation of this vision/strategic plan
3   Building 21st century relevant industrial bases and businesses to service emerging planetist markets—and, as indicated above, consciously growing a supporting 21st century relevant knowledge domain—to ensure continuing economic prosperity
4   Creating 21st century sustainable prosperity by ensuring that economic prosperity is not accompanied by increased social, cultural or ecological poverty, and even better, that it is based on commercialisation of local ecological, cultural and social prosperity (heritage).

TURNING COMMUNITY VISION INTO COMMUNITY REALITY

I have discussed the processes for creating a strategic vision in several places in this book. Now I want to identify some of the key areas where strategic actions to realise such a vision could be concentrated. Here are nine potential areas of strategic action. The first of these is that all the already existing community investment programs have to be redirected and refocused to realising the new community vision. Sometimes new money can be hard to find, so it is important to make sure that existing resources are directed as tightly as they can be to realising a vision. This narrow range of activities central to realising the community vision can also be used to increase community buy-in through social contacting measures, also increasing reciprocal obligations and community interdependence. For example, these programs can encourage unemployed and disadvantaged people to build career paths complementary to and part of the community's preferred industrial future. This improves their social inclusion and underpins their future economic and social prosperity while promoting community synergism and lessening community antagonism.

The second action is to create a unique branding of community-produced products and services to ensure their origin is easily and widely recognised and that branding is associated with the community itself as well as its products and services. Some examples of such community branding are Cremona (violins) and Wichita (small aircraft).

The third is to use targeted credit, including targeted bank business loans and micro-credit, that is informed by a shared community commitment and responsibility for creating the 21st century-relevant infrastructure, organisations and businesses needed to fulfil the community vision.

Fourth, communities should organise themselves so that they act as a single community-wide bargaining entity in trade and relationships with the outside world. This can include aggregated community procurement programs (ACPP). These ACPP programs involve the community aggregating and placing bulk orders with suppliers after a competitive tendering process in order to obtain the best value. Rural people do not have the multiple choices through competitive discounting available to them that urban people do. Demand aggregation gives them a similar opportunity by another means.

The fifth action is to have a program of industrial clustering to realise the envisioned preferred future that integrates research and development, education and learning, and business development activities. Among the already existing programs that could be redirected so that they assist to realise the community vision are social inclusion programs such as vocational college courses focused on the unemployed and people aspiring to work in this preferred industrial future.

The sixth is to procure leading edge connectivity to enable the community to participate fully in trade with the external world.

The seventh is to maximise local involvement in and ownership of supply chain and production value-adding. For rural areas this might include preferential contracts with local food producers and locally organised and owned food preservation and processing facilities.

Eighth, there should be a focus of building an ecologically prosperous industrial future through the implementation of programs that assist the community to live within perpetual solar income, turn waste into food, and produce good and services with zero net collateral damage to the environment and to others. This will ensure a minimal carbon footprint and assist the realisation of an industrial future that gets to the future first and then stays there.

For rural communities another critical action for future success would be to design food production and processing so that these maximise both economic and ecological prosperity, including by minimising the contribution to, and becoming resilient to, global warming. Communities can grow trees to sequester carbon that can be traded to offset carbon footprints. And they can also sequester carbon below ground. This can include sequestering carbon waste from food production and processing as either biochar (carbon such as charcoal produced when organic matter is burned in the absence of oxygen), or as compost, into soils. This improves both drought resilience and agricultural productivity through elevating both water holding capacity and soil fertility, and as well generates income from the sale of sequestered carbon credits.

21ST CENTURY SUCCESSFUL COMMUNITIES

Successful communities in the 21st century will have:

1 A leadership culture of purposeful future making, preferred future envisioning and mission-directed strategic planning.
2 A management culture of resilient future taking, probable future envisioning and problem-centred strategic planning.
3 A 21st century-relevant industrial base able to create and supply ways and wares for emerging planetist markets. This industrial base can use industrial clustering where research and development, education and learning, and business development are co-located and integrated into a single collaborative industrial development framework.
4 A core culture of planetism, including a commitment to interdependence and communitarianism and an acceptance that these require the reciprocity of rights and responsibilities. Planetism also involves the recognition that in the 21st century we will either all win or all lose together. This in turn requires that there be a culture that when necessary negotiates mutual coercion mutually agreed upon.
5 Global connectivity and the ability to trade and negotiate effectively as a collective entity with the world.
6 The capacity to retain and/or attract the talented, motivated, mature and enterprising young people who will be the ones who will generate future sustainable prosperity.

Successful community or organisational transformation can occur if:

1 As manager-of-self, prophet and future-taker the group uses insight to understand its present situation and foresight to prophesy its probable future in (say) ten years with business-as-usual.
2 As leader-of-self, visionary and future-maker it uses insight to understand its uniqueness and its destiny and foresight to envision both its preferred future and possible future.

TOOLS FOR ENVISIONING COMMUNITY FUTURES

Visions of the future should always be described in the present tense, as if you were already standing in the future and describing what surrounds you. This provides a template for creative freedom that is not present when one uses the future tense, as if one were standing in the present time and looking forward. This vision should describe a community that has already achieved sustainable prosperity in (say) twenty years time—one that is more prosperous in economic, ecological, social and cultural terms

and one that has not increased poverty in one category while creating prosperity in another. This might be just imagination at the beginning and it might include imagined people, events and actions. However, it can be the beginning of an historic and real transformation of community. This is George Bernard Shaw's 'I see things that never were and ask why not'. It might start as an imagined destination but it can nevertheless kick start the creation of a practical strategy to realise an envisioned preferred future prospect in terms of collectively improved prosperity, sustainability, security, harmony and justice.

The accompanying strategy to realise this preferred prospect should be described as a narrative, using the past tense. I call this backcasting process *future history*. As it is a narrative it includes a time line and a series of strategic actions or events that have collectively resulted in the realisation of the vision. Each strategic action or event can be detailed in terms of the who, what, when, where, why and how of each strategic action in five action categories—impediments removed, improvements made, initiatives taken, heritage nurtured and baggage eliminated. Although it is set in the future, backcasting describes all of the strategic actions as if they were the components of an already accomplished mission. Therefore it is written in the past tense, as a piece of history describing the journey of transformation that has just been completed. If, after completion of backcasting, this strategy seems to be totally unrealisable—repeat, *totally unrealisable*—after thorough consideration a possible future can then be envisioned.

The use of tenses in this way does make the mind become more flexible and creative. Therefore the trick is that if one wants to be really creative about setting out on a journey to shape the future, one should not use the future tense at all. The future tense should only be used to describe situations in a time beyond the envisioned destination.

When we envision futures it is important to ask open questions. In my work I have developed suites of questions to assist communities to reinvigorate themselves and build new pathways to the future. Two useful ones are:

1   It is twenty years hence. Your community is now famous for X. X is a product or service that did not exist when you initiated this process of community transformation. X has generated considerable prosperity and helped make the community a 21st century success story. What is X?

2   It is twenty years hence. This community is now thriving, so much so that enterprising, motivated and talented young people are now moving here to live and work, and others who grew up here and then left to seek greener pastures are now returning. Name a quality, facility or opportunity you have added to this community to make this difference. Identify some community baggage that previously held you back and drove people away that you have now eliminated.

Community and organisation transformation can be guided by the 3Ds of future exploration. These are:

1   Insight (destiny dialogues) to understand community or organisational uniqueness and strengths and weaknesses so that the future community becomes a place able to both celebrate its uniqueness and thrive in the emerging planetist culture of the mid 21st century.
2   Foresight (destination dialogues) to prophesise its probable future and envision its preferred future and possible future, so that this future is relevant to the possibilities and opportunities offered by the unfolding planetist future.
3   Hindsight (derivation dialogues) to ensure that heritage is kept and nurtured and baggage is eliminated.

Imagine in the present tense a particular community in twenty years time. Imagine its new 21st century-relevant knowledge domain, possibly based on the community's destiny, which has created sustainable prosperity in this community.

RURAL COMMUNITIES: FROM GREEN REVOLUTION TO EVERGREEN REVOLUTION

The first of the three technological elements used in agriculture's so-called green revolution originated in the 1840s with the birth of chemical fertilisers through the work of Justus von Liebig (artificial fertilisers) and John Bennet Lawes (superphosphate). The second of these technological elements, chemical pesticides, was developed during the world wars as spin-offs from germ warfare. The third resulted from the development by Norman Borlaug and other scientists of the high productivity strains of wheat and rice that significantly reduced global malnutrition from the 1960s onwards.

However, the ecological cost of this green revolution has been high, with significant environmental degradation beginning to appear in the 1980s, and with other costs as well. This green revolution has been heavily dependent on high fossil fuel consumption, which was needed for mechanisation of agriculture and for the production of artificial fertilisers. The carbon footprint of the green revolution is much too high for it to be continued without

significant changes to it. The challenge for Destination 2050 is to convert the *green* revolution into the *evergreen* revolution. This involves marrying the highly productive but ecologically harmful post-Liebig production processes with the low productivity, ecologically harmless biologically driven (biodynamic/organic) agriculture of the pre Liebig/Lawes era to create the next generation of highly productive and economically and ecologically prosperous evergreen agriculture. This describes our preferred sustainably prosperous agricultural future.

Imagine evergreen agriculture ways and wares.

These will include ways and wares for:

1 Clean food: food produced free of any contamination that endangers health.

2 Green food: food produced with zero net collateral to the environment and within perpetual solar income and without the use of fossil fuels.

3 Culturally customised food: When food is grown and processed it can be *culturally customised* for a marketplace that increasingly values cultural and religious diversity and tolerance. Food is one of the most important forms of cultural expression. When a country such as the USA exports food to South Korea, the food should be in a form which celebrates Korean culture, not American. There is an increasing cross-cultural appreciation of the food cuisines of cultures that are not our own. Food can be also customised for religious diversity (e.g. halal or kosher food). Globalisation and tribalisation and the spread of cultural and religious diasporas are creating immense markets for foods that are simultaneously clean and green and customised for culture or religion.

4 Indigenised food: This can occur in those parts of the world where there is significant biodiversity. *Indigenisation* involves identifying and marketing new food (plant and animal) and fibre products drawn from nature's bounty and biodiversity. There are countless possible new kinds of food that could be identified, produced in commercial quantities and marketed to the world. Many of these are already known and utilised by indigenous peoples. In a postmodern/planetist 21st century we can create a food industry that simultaneously honours cultural diversity and biodiversity.

CREATING REGIONAL SUSTAINABLE PROSPERITY

To illustrate what we can do to create sustainable prosperity in a community—this time a rural/regional community—here is a narrative I developed with some people who live in northern Australia, that part of Australia north of the Tropic of Capricorn.

At present, this part of Australia is divided between three regional jurisdictions—the Northern Territory, Queensland and Western Australia—and many local jurisdictions. There is no coherent view of what it could become. Traditionally, Australians living here have seen see their region as a last frontier—which in effect means it has been getting to the future last. They see themselves as constantly struggling to catch up in their development with temperate southern Australia. Although this is now changing, this perspective is still a major part of the regional culture. So as part of a journey of self-transformation northern Australia would need to ditch some baggage—its 'last frontier' culture—so that it is able to get to the future first instead of last. Assuming that it does so, however, here is:

A VISION OF NORTHERN AUSTRALIA 2035

The year is 2035. Northern Australia is the world centre of excellence in design and innovation for sustainable living in the tropics, subtropics and tropical savannah. It has used all of the six future-shaping tools to realise a unique vision that enabled it to get to the future first. It can now customise products and services originally created for the temperate zone so that they work in the tropics without doing net collateral damage to tropical ecosystems, communities and the planet. This is a new approach, for the history of the region has a history of successive failure. This was the result of using modernist mindsets and introducing into the tropics innovations, products and services that were originally designed to work in temperate zones. Earlier settlers were more tropically attuned and culturally aware of the potentially useful knowledge already developed by indigenous people in the region. However, post World War I development in tropical Australia was increasingly shaped by modernist and temperate mindsets often with disastrous results. Housing suitable for southern Australia, for example, is totally inappropriate for the tropics. But as the regions rushed into modernity, this did not stop huge numbers of these houses and institutional buildings being built there after World War II.

Now in 2035 northern Australia has developed industrial clusters to create many totally new tropical living ways and wares for export to the rest of the tropical world. This cutting edge tropical knowledge informs public policy and corporate strategic actions, design, planning, innovation and learning for successful living in the tropics.

There has been a huge growth of prosperity in tropical regions through globalisation since the beginning of the 21st century thirty-five years ago. A large proportion of the global educated middle class now live in tropical environments in Asia, Africa and South America. They are now using their purchasing power to demand many new products and services customised or specifically designed for tropical environments, and since northern Australia is now a world leader in tropical knowledge and innovation many of these come from northern Australia.

Northern Australia has developed designs, plans, innovations and educational programs to realise:

1 Tropical wellness and healing from tropical illnesses
2 Sustainable tropical agriculture, horticulture, aquaculture and forestry with zero net collateral damage to tropical environments
3 Infrastructure, communities and buildings that facilitate productive, comfortable and healthy tropical living with zero net collateral damage to tropical ecosystems
4 Biodiversity conservation in the tropics
5 Water conservation, restoration, protection and watershed management of areas subject to intense tropical rainfall events
6 Mineral recovery, transport and processing customised for tropical environments
7 Natural and urban habitats and infrastructure resilient to extreme weather events and natural disasters (e.g. cyclones, hurricanes, typhoons, floods, tsunamis, earthquakes)
8 Sustainable tourism with zero net collateral damage to the tropical environment
9 Sustainable management of tropical offshore environments, particularly that of coral reefs, and the sustainable development and management of ports and marine trading routes
10 Tropical lifestyles that are fulfilling and healthy even for those who move into the tropics from temperate zones.

Higher education institutions in northern Australia have added tropical knowledge to the curriculum to ensure that professional graduates in areas such as design, planning, architecture, engineering, medicine, leadership and management, sports science, veterinary medicine, agricultural science and ecology are all able to tropically customise their work and incorporate tropical knowledge into everything that they do.

Students from tropical areas all over the world come to northern Australia to learn to tropically customise their work. Tropical knowledge has been introduced into school education as well. An innovation culture of enterprising people has been created. These people are mature, successful 21st century adults who have built life and career paths in 21st century industries based on tropical knowledge, and they have created sustainable prosperity in northern Australia.

Tropical experts from northern Australia are working throughout the tropical, subtropical and tropical savannah zones of the world.

Imagine the designs, plans, innovations (ways and wares) and learning programs that have been developed to export to the world, and how they have been developed in the industrial and social laboratory that is northern Australia.

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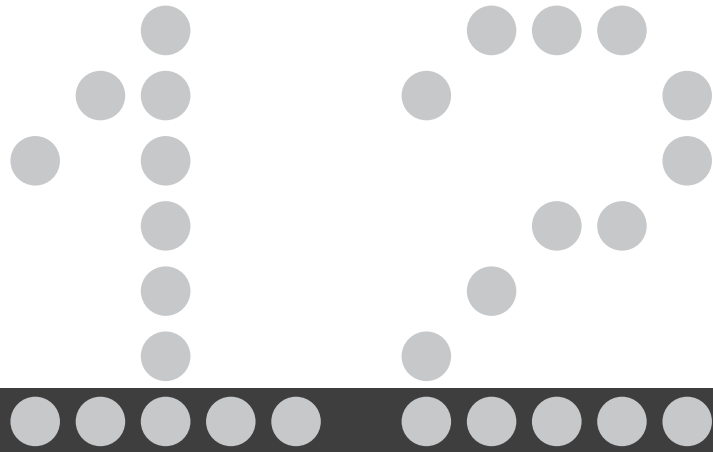
Investing in
Destination 2050
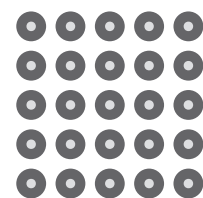
ONE OF THE MOST SIGNIFICANT WAYS we will shape the future towards Destination 2050 will be by investment. In turn, investment will be successful if it correctly anticipates the behaviour of future markets and the ways and wares as products, services and technologies they will demand. Much current investment tends to take place with little systematic understanding of the future other than making prognoses based on projections of current plausible and probable-future trends. This book offers a concepts bank and toolkit that should create more success and less risk for investors. By examining the values of planetism we can understand what industrial futures are likely to become more significant in the future and which less so, and we can predict many of the ways and wares that will be demanded by emerging planetist markets.

Investment empowers the six future-shaping activities of leadership, management, planning, design, innovation and learning. And like everyone else investors will be more successful if they act in ways that use all of these holistically rather than just some of them. I suggested earlier that the best way to thrive in the future is to actively shape it through preferred and possible future vision and by undertaking mission-directed strategic action to realise this vision. Investors can thrive by collaborating with those who envision what the future could be and then ask why not: that is, by facilitating leadership-driven purposeful future making rather than by controlling management-driven resilient future making. So while all of these six future-shaping activities matter we need relatively more leadership driven investment and relatively less management-driven investment.

DUE DILIGENCE FOR THE 21ST CENTURY

Due diligence is designed to assess investment risk. Investment initiates the formation of an interdependent relationship between investor and investee to create shared benefit—win-win outcomes—so it requires the development of trust between the parties. This in turn means that each party needs to evaluate the honesty, reliability and competence of the other. In the 21st century a single integrated global marketplace is evolving in which everybody can have the opportunity to participate. Because it increasingly involves investing into different cultures in different national jurisdictions investment is becoming much more complex. In *Designing 2050* I discussed at length the work of Trompenaars, Hampden-Turner and Hofstede, who have massively contributed to our understanding of the role that culture plays in organisational behaviour. I am not going to repeat this work here, but I recommend that anyone planning to invest across cultural boundaries should inform themselves of their excellent work, for I have been inspired and informed by it myself. I would also recommend to anyone who wants to invest that they should favour companies that embrace planetist values. Consider what kinds of investments ethical investment organisations

currently do and do not make and what practices are encouraged by civil society organisations. Ethical or socially responsible investment organisations use three major tools in their work:

1   Negative screening: Avoiding investment in industries that have a negative impact on society and the environment.
2   Positive screening: Proactive search for investments that contribute positively to society and the environment.
3   Corporate engagement: Dialogue with companies invested in for the purpose of raising issues of concern and advocating positive change to company practices.

This is what I try to do in my own work as well, and I submit that much of the concepts banks and toolkits described in this book can be used as an ethical investment toolkit. I would also suggest that the activities of ethical investment and civil society organisations are already being informed by planetist values. In future more and more investors will join this planetist community.

There are plenty of public companies continuing to pursue their own interests ahead of those of anybody else. Many persist in chasing win-lose outcomes in a changing global culture increasingly less tolerant to this. Although competition will never disappear it will change. The *way* we compete and *when* we choose to either compete or collaborate is changing. And in our increasingly communitarian world we get very angry when some seek to win and spread the loss to the rest of us. Global anger directed at Wall Street investment banks is a good example of this (and, thus far, it is not at all clear that these banks have modified their behaviour despite being told that next time they will be allowed to fail and not bailed out). Very similar behaviour has been exhibited by Greece in the 2011–2012 European financial crisis. Greece was extraordinarily unwilling to change its immature behaviour and accept the responsibility for fulfilling the mutual obligations it made with the rest of Europe. It now has to learn to behave as a member of a community and seek win-win outcomes rather than selfishly seeking its own salvation.

Investors can move the frontier here by reminding investees that interdependence and communitarianism are now 21st century norms. In the second decade of the 21st century should anyone invest in an individualistic organisation that continues to pay huge bonuses and salaries to its senior executives in times when the company is in trouble? Most businesses only have one culture throughout. Both good and bad cultures when they are embedded in organisations will spread throughout the organisation. They

are both hard to change and hard to contain. A culture that embraces greed in executive salary payments will almost certainly spread to the rest of the organisation—just consider Barclays Bank's problems in July 2012. Likewise should you invest in a nation that is autocratic, patriarchal and intolerant of cultural and religious difference? This culture will be expressed in all its relationships. Such a nation is unlikely to be autocratic and repressive inside its jurisdiction and democratic and considerate outside it. Should you invest in an Arab nation such as Kuwait or Saudi Arabia that has yet to be touched by the Arab Spring? Or in a nation that oppresses its educated middle class, women, and cultural and religious minorities like Iran? We all know that the tide of global public opinion is against such leaders and soon this leadership will collapse. If you refrain from investing you will be making not just a moral but also a pragmatic decision.

In the complex world of a single integrated interdependent multicultural global market there are many more things that can go wrong and those who want to succeed on a global stage and across many national boundaries will need to become more sophisticated in doing their due diligence. Due diligence seeks to ensure that an investment is secure during the life of that investment. It is a risk assessment system. So it is in the interests of investors to imagine and create new innovations—*security ways and wares for intelligence, surveillance and vigilance*. The better these ways and wares, the more secure these investments are likely to be. To ensure success in the communitarian and pluralistic 21st century due diligence should therefore be expanded so that it embodies issues and concepts discussed in this book such as interdependence, democracy, communitarianism, sustainability, gender equality, cultural knowledge and customisation, intercultural/interreligious harmony and security.

Investors can predict future market demands based on understanding how values can determine value (valuableness) and thereby shape market demands. An understanding of what ways and wares will be in demand in 21st century marketplaces will assist the investor to gain insights about the potential market penetration and success of a product or service they are considering for potential investment.

Since planetist values will shape global markets through to 2050, a business that is focused on providing products and services for emerging planetist markets is much more likely to succeed.

Investors can and should see themselves as purposeful future-makers of Destination 2050 as well as being resilient future-takers in the journey towards Destination 2050. They need to be careful not to be cautious in their actions. We live in a time when it is possible and even best to do economically well by simultaneously doing social, ecological and cultural good.

AREAS INVESTORS COULD CONSIDER INVESTING IN

Businesses involved in, and innovators creating ways and wares that realise, the following:

1 Sustainable production, consumption, development and lifestyles

Some of the things these could include are ways and wares for:
• Living within solar income by, for example, using solar energy, wind power, terrestrial hydro, solar marine hydro and biological energy. I have described hydro energy in all its forms earlier.
• Non-solar renewable energy production, for example, lunar marine hydro and geothermal energy, both hot rocks and volcanic geothermal
• Turning waste into food or producing something with zero net waste by, for example, using aerobic carbon recycling (compost) and anaerobic carbon recycling (biochar produced by pyrolysis); and by reusing, recycling and renewing all material
• Avoiding net collateral damage to environment and society by, for example, biodiversity protection and restoration, and cultural protection and restoration
• Restoring collaterally damaged (impoverished) ecosystems to prosperity
• Clean/green, culturally customised and indigenised agriculture and food production
• Carbon farming—with trees (above ground carbon sequestration), or anaerobic biochar production (pyrolysis) and aerobic composting combined with soil carbon sequestration (below ground carbon sequestration)
• Sustainable lifestyles, sustainable individualism.

2 Sustainable societies and sustainable individualism

This could include ways and wares to promote and sustain:
• Democracy, for example, by providing the mechanisms for free and fair elections, and advising how to establish and support democratic institutions
• Intercultural and interreligious harmony, for example, by developing techniques to promote intercultural tolerance, interreligious harmony, schoolyard kindness, mediation, conflict resolution and peace building
• Security, for example, by the development of intelligence, surveillance and vigilance ways and wares
• Gender equality, examples would be developing means to enable a better work/life balance for women, career path development for women and participation of women in democracy
• Community interdependence, such as providing ways and wares to encourage community cohesiveness, conviviality and interdependence

- Free and fair trade, like developing methods of due diligence procedures which will work across cultures, and ensuring transparency in international trade agreements
- Supply chain and customer relations interdependence, including developing equal and collaborative relationships with suppliers and customers, just-in-time supply chains, customer and supplier loyalty
- Honesty, reliability and competence assessment for interdependent relationships
- Community/organisational synergism promotion and antagonism abatement
- Remote/virtual intimacy for maintenance of long distance interdependent relationships—the next generation of social media after Facebook, Skype and Twitter.

3 Learning for future life and career paths

Some areas are:
- Lifelong learning
- Learner-driven learning
- Just-in-time learning
- Customised learning
- Transformative learning
- Collaborative learning
- Contextual learning using virtual reality
- Learning to learn, think, feel and reflect
- Career and life path development: destiny, destination and derivation dialogues
- Teacher professional development for knowledge navigation, mentoring and career and personal development counselling
- Creative and critical thinking, philosophy for children—logic, metaphysics, epistemology, ethics
- Emotional intelligence for children, both intrapersonal and interpersonal
- Meditation, mindfulness, calmness and reflectivity for children.

4 Shaping the future

This could include:
- Purposeful future making/leadership
- Resilient future taking/management
- Destiny, destination and derivation dialogues: insight, foresight and hindsight in leadership and management and life and career path development
- Leadership and management of self and other

- The six future-shaping tools: leadership, management, planning, design, innovation and learning—for example, ways and wares to pull all of these future-shaping tools into integrated frameworks.

5 Successful adulthood and successful ageing

This could include:
- Indian Summer Adulthood
- Legacy identification and development
- Elderhood
- Grey nomadism.

6 Illness and wellness

This could include:
- Wellness—wellbeing and well-becoming
- Melior identification and application to life and career path planning
- Postmodern illness treatment and wellness creation
- Healthy lifestyles, healthy individualism
- Resilient health, resilient future taking
- Sustainable medicine—healing with zero net collateral damage.

7 Community development

This could include:
- Community envisioning using the six futures
- Community future shaping—strategic future making and future taking—using the six future-shaping tools and the 6Vs of leadership
- Aspirational community development, which would involve converting locational and experiential communities to aspirational communities, and also maintaining long term aspirations and purposeful-future making in community development
- Community destiny
- Community conviviality.

8 Tourism

This could incorporate:
- Appreciating nature, as in ecotourism
- Appreciating culture, as in cultural tourism
- Creating wellness, including nurturing, renewing and repairing relationships of all kinds.

9 Generic technology

Applying technology to create ways and wares for all of the above purposes including sometimes using one or more of the following technologies:
- Digital technology
- Bioscience and biotechnology
- Nanoscience and nanotechnologies
- New materials science and technology.

CONNECTIONS

peter@preferredfutures.org

www.designing2050.com

www.peterellyard.com

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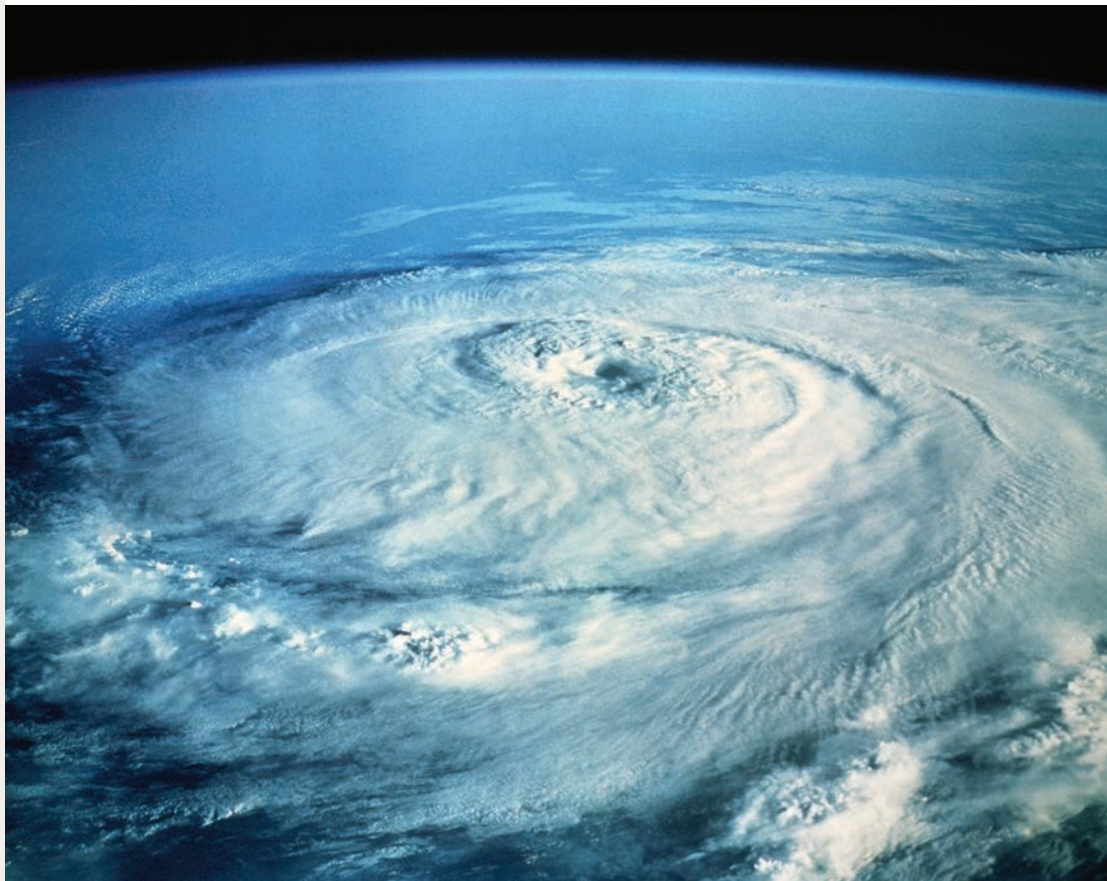
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ABOUT THE AUTHOR

Dr Peter Ellyard is an Australian futurist, strategist, speaker and author who lives in Melbourne. He is a graduate of Sydney University and Cornell University. His original education includes a Ph.D in plant sciences and biochemistry. He formally became a futurist upon his appointment as CEO of the Australian Commission for the Future in 1988. He is currently Chairman of the Preferred Futures Institute and the Preferred Futures Group, which he founded in 1991. Peter's work is directed at assisting nations, corporations, communities and individuals to develop pathways to success in a globalising interdependent 21st century. He is also Chairman of Foundation 2050, which is working towards the practical realisation of concepts and aspirations described in this book and his two previous books.

Before working for the Commission for the Future, Peter held CEO positions in a number of public sector organisations over fifteen years. These included two associated with Environment and Planning and one with Industry and Technology. He was also Chief of Staff of the Office of Environment Ministers in the Federal Government in Canberra. Peter is an Adjunct Professor in the Curtin University Business School and is a Fellow of the Australian College of Educators, the Environment Institute of Australia and New Zealand, and the Australian Institute of Management. He has been a Senior Adviser to the United Nations system for more than forty years and has acted as a Senior Consultant to the UNEP, the UNDP and UNESCO. Over the years Peter has worked in many developing and transitional countries, mostly in South East and East Asia, and the Pacific. He was a Special Adviser to the 1992 Earth Summit in the fields of biodiversity and climate change, and contributed to the preparation of the Framework Conventions in both these areas.

Among other things he is the father of two grown-up daughters and has one grandson; he is a second generation Esperantist, a tolerant vegan, a Wagner opera devotee, an Iyengar Yoga practitioner and teacher, and a fanatic of Australian football. He supports the Brisbane Lions.