1 An Introduction to the Future

Introduction: My Predicament

My first futures book, Tomorrow's Tourist *(Yeoman, 2008) upon reflection was very linear. A series of predictions about where the tourist will go on holiday in 2030 and what they will do. Although well written and well received it was lacking something. That was a realisation that the world was changing more rapidly than I thought, so as a consequence I decided my second book would be more creative, illustrate a quantum leap into the future in order to provide a more realistic analysis of what is coming beyond a rational perspective. Hence* 2050 – Tomorrow's Tourism *is more of a real blue skies thinking book about the future of tourism.*

Ian Yeoman

What Future? Scarcity of Resources or a Society of Plenty

Whether economic growth can be sustained in a finite natural world is one of the earliest and most enduring questions in economic literature. In a world where 25 million tourists (Yeoman, 2008) took an international holiday in 1950 and 100 years later it is forecasted to grow to 4.7 billion. Is such a forecast sustainable? As Krautkraemer (2005) points out, the past two centuries have seen unprecedented growth in human population and economic wellbeing for a good portion of the world. This growth has been fed by equally unprecedented natural resource consumption and environmental impacts, including conversion of large portions of the natural world to human use, prompting recurring concern about whether the world's natural resource base is capable of sustaining such growth. To some degree, this concern is supported by simple mathematics: exponential physical growth in a finite world eventually generates absurd results. For example, any positive population growth rate eventually has the population completely covering

the face of the Earth and expanding rapidly into space; any positive growth rate for petroleum consumption eventually results in annual production that is greater than the mass of the Earth. As a result, economists propose a scarcity of resources where the world just runs out of space, oil, food and water.

However, it must be remembered that it was Thomas Malthus who wrote *An Essay on the Principle of Population* (Malthus & Gilbert, 2008), published from 1798 to 1826, observing that sooner or later population is checked by famine and disease. He wrote in opposition to the popular view in 18th-century Europe that saw society as improving and in principle as perfectible. He was wrong. Why? While exponential growth can be expected to lead to increasing resource scarcity, human creativity can ameliorate increased scarcity. Humans have been quite adept at finding solutions to the problem of scarce natural resources: finding more abundant substitutes for various natural resources, exploration for and discovery of new reserves, recovery and recycling of materials, and perhaps most importantly, the development of new technologies that economise on scarce natural resources or that allow the use of resources that were previously uneconomical. So, can humankind in an innovative world create a society of plenty rather than one with a scarcity of resources? This is the key question; can humankind adapt to the forthcoming drivers of ageing populations, peak oil or climate change and what does this all mean for tourism?

The purpose of this book is to illustrate the future but not provide an exact future. The chapters in this book do make you think, you might not agree with them but you will find them illuminating and thought provoking, sometimes scary and humorous, other times 'oh really' or 'I never realised that'.

Futures Studies: A Quantum Leap of Science Fiction

Although thinking about the future has always been a part of human culture (e.g. soothsayers, prophets and later 'utopians') it has only been in the past four to five decades that it has produced the academic research field known as futures studies. Futures studies is a plural term rather than the singular 'future' studies to counter the notion of *only one future*, the latter having both conceptual limitations and political implications. This pluralisation of futures opens up the territory for envisioning and creating *alternative* and *preferred futures*. While it is commonly thought that futures studies are an attempt to *predict the future* based on extrapolation from present-day trends, futures studies historically shows that there has been a shift from what Inayatullah (2002) calls single-point forecasting – as precise prediction – to scenario planning, that embraces not only one outcome but several, and then further to foresight and backcasting to map out complex, layered causal powers involved in social processes and outcomes. According to Strand

(1999), forecasting in terms of predictions is seen as a naive scientific activity among futures scholars today. In line with Blackman (1994) he further declares that futures studies is to make more informed decisions and choices when trying to manage the processes of change, rather than an engine for making predictions.

Bergman *et al.* (2010) present a useful typology of futures studies within four paradigms of thought; namely prediction, prognosis, utopia and science fiction. Predictions usually have scientific ambitions and are more precise than in the other outcomes, as they indicate mechanisms and tendencies behind the events and states. Prognoses are characterised by not being rooted in an explanation; they do not make explanatory claims about future events and states. They do, however, raise claims that the forecast really will occur. A common form of prognosis is to extrapolate empirical, usually statistical, trends. They can be very sophisticated, but the basis is that the development will continue to follow the direction that data point out. Utopias (or dystopias) are put forward without pretensions of being true and neither do they show why things are going to be the way they are said to be. The word utopia, or outopia, means 'no place' which seems to us to be a good term for forecasts that neither want to tell truths nor point out causes that are put forward without pretensions of being true. Neither do they show why things are going to be the way they are said to be. It is another thing that authors of utopias often want to offer critical truths about the society in which they live, and perhaps also indicate mechanisms behind a social development that they want to give warnings about. We call the combination of not making truth claims and indicating mechanisms behind the descriptions science fiction.

What has led Bergman *et al.* (2010) to the term is a common definition, that stresses that the literature makes explanatory claims: science fiction involves systematically altering technological, social or biological conditions and then attempting to understand the possible consequences. Science fiction writer Robert Heinlein *et al.* define science fiction as:

> realistic speculation about possible future events, based solidly on adequate knowledge of the real world, past and present, and on a thorough understanding of the nature and significance of the scientific method. (Heinlein *et al.*, 1959: 1908)

More generally, science fiction is a broad genre of fiction that often involves speculations based on current or future science or technology. Science fiction is found in books, art, television, films, games, theatre and other media. Science fiction differs from fantasy in that, within the context of the story, its imaginary elements are largely possible within scientifically established or scientifically postulated laws of nature (though *some* elements in a story might still be pure imaginative speculation). Settings may include

the future or alternative time lines, and stories may depict new or speculative scientific principles, such as time travel or new technologies. As British Telecom futurist Lesley Gavin said:

> The future, as defined by science fiction movies, is already shaping our daily existence, according to BT's first female futurologist, Lesley Gavin. Speaking at today's Smart City Futures conference in Salford, greater Manchester, Gavin told the audience that there were cyborgs currently living among us.
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> 'We are becoming more used to cyborgs in our lives. There's already over 3m in the world today, and there are probably some in the audience. People with pacemakers for example.' As well as pointing out people who are to some degree a synthesis of organism and technology, she went on to illustrate her talk with the everyday use of robots such as Leonardo, which looks like a toy along the lines of a Gremlin, but has been manufactured to help autistic children communicate.
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> The films Blade Runner, Judge Dredd and Solyent Green may seem unlikely places to search for solutions to the issues of world overpopulation and shortage of natural resources but Gavin believes the current development of cities shows trends 'along the same sort of lines as Hollywood'.
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> Giving an example of a couple playing Wii Tennis in the living room she pointed out that even the basis on which we build houses might need to be re-thought alongside the big issues of food production where hydroponic towers and gardening on urban roof spaces are already starting to become a reality.
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> 'Cities are only as limited as our imagination,' she concluded. (Gavin, 2009)

The further into the future we illustrate it, that is, 2050 rather than 2025, the more uncertain that future is, and given the pace of change in the world, especially considering technological change, it seems appropriate to adopt a science fiction interpretation about the future of tourism. It was Steven Spielberg who consulted with a number of futurologists (those who discuss and talk about the future) when trying to frame the film *Minority Report*, as Healy illustrates:

> The film respects this basic point about social change, and this is the main reason its vision of the future is compelling. Spielberg's distillation of the futurologists' predictions results in a world that mixes the familiar and the new in a convincing way. John Anderton (Tom Cruise) works in an antiseptic Department of PreCrime that is all perspex and chrome,

> but the city outside still has ratty back alleys, dumpsters and construction work. He drives a high-tech Lexus, recently assembled on a make-to-order production line, out to his ex-wife's 20th-century wood-frame house by the lake. It's convincing.
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> Two other features of Anderton's world stand out. The first is that retinal scanning is everywhere. It's used at work. People casually glance at the scanner as they enter their office building. It's a tool of law enforcement. In a brilliant sequence, a team of electronic 'spiders' search for Anderton in a low-income apartment building. The building's residents hate the spiders but know exactly how to react to them. And most of all, retinal ID is used to pay for what you buy and (much worse) have products personally pitched at you by smart billboards wherever you go. (Healy, 2002)

As Healy notes, many of the predictions illustrated in *Minority Report* are happening now; therefore if one wants to move beyond rationality, suspend beliefs and think outside the box, a quantum leap is required, hence in this book science fiction is used as the paradigm for futures thinking.

Scenario Planning

One of the ways to express futures studies is by using scenarios or scenario planning. In the postmodern era, which is characterised by uncertainty and contingency, increasingly we see scenario thinking and planning used in the public and private sectors for business and government decision making. Facilitating strategic conversations of diverse stake holders and embracing the complexity of their multiple perspectives, scenario planning promotes a broader perspective of the landscape, free thinking and promoting action. Lindgren and Bandhold (2009) provide a number of rationales for the success of the scenario planning method. First, by reducing complexity to a finite number of divergent options, scenario planning provides a complexity-reducing framework. Second, by availing team players to a collectively understood structure for thinking outside known parameters the scenario framework offers a means to communicate more efficiently. Third, the human brain relates easily to stories; the narrative thinking used in scenario thinking matches the way the brain works, thus expanding the brain's capacity to process information. Finally, by forcing your mind to think in qualitatively different directions you can train your brain to think the unthinkable.

Effective scenarios must have meaning and relevance to the key players. They must be plausible to stakeholders and enable them to imagine

themselves in the situations outlined. At the same time the scenarios must challenge the minds of these same members, they must be novel and innovative and need to move outside the framework of business as usual. In this book, scenarios (stories) are used to express what the future could be in the form of a narrative. Then those stories are explained through a number of drivers that shape that story. For example in Chapter 11, 'Shanghai 2050: The Future of Hotels', nine drivers are used, including new personal technologies and return on investment. The drivers illustrate or signpost how change could occur followed by a discussion on the implications of the scenario. It must be remembered when viewing the scenarios, they are not forecasts of the future but illustrations of how the future could be. The scenarios illustrate how a combination of drivers, which are fundamentally qualitative, could unfold. The scenarios presented in this book evoke thinking and debate, in which readers can draw their own conclusions. For a comprehensive guide on how to construct scenarios visit www.tomorrowstourist.com.

Chapter Outlines

Before I wrote this book, I had to think about how to structure it. In the beginning I just started to write, the words flowed, some chapters were written, thoughts developed and then suddenly I realised: the book was starting to be shaped around three central themes about the future, namely the driving forces of wealth, resources and technology as identified in Figure 1.1. It was one of those eureka moments.

First of all, wealth is the key determinant of tourism, as according to the UNWTO (2010) tourism demand depends strongly on the economic conditions in major generating markets. When economies grow, levels of disposable income also rise. A relatively large part of discretionary income is spent on tourism, in particular in the case of emerging economies. In reverse,

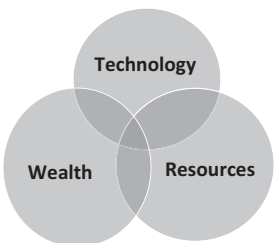

Figure 1.1 Driving forces of change

a tightening of the economic situation will often result in a decrease or trading down of tourism spending.

It is clear from a number of studies (Stancil & Dadush, 2010; Yeoman, 2008) that the world economic order is shifting with the economies of Mexico, Brazil, Russia, India and China (MBRIC) dominating this shift. Today, the G20 countries represent approximately over 85% of global GDP, 80% of world trade and 66% of the world population. The economy of the G20 is expected to grow at an average annual rate of 3.5%, rising from $38.3 trillion in 2009 to $160.0 trillion in 2050 in real dollar terms. However, over 60% of this $121 trillion dollar expansion will come from the MBRIC countries. This fundamental shift represents how the MBRIC countries will increasingly become more important as outbound travel increases from these countries.

Second, tourism distribution channels are changing now with the demise of the travel agent compared to the direct channel of the internet. Most adults have a mobile phone (and lots of children do as well) and the fixed line telephone seems to be thing of the past. It is observed that Generation X and Y do not wear watches as a mobile phone will suffice. Today, a flip point has been reached in the use of the mobile phone as Google's Claire Hatton said:

> 30% of hotel bookings in the cities of Tokyo and Seoul are on the day of arrival through the mobile phone and this trend can only grow. Today's typical tourist is pointing their mobile phone at a hotel, using augmented reality platforms to view information and then make reservations via www.expedia.com. (Hatton, 2009)

This flip point, a point where a trend becomes important, is irreversible and is now mainstream, illustrating how technology is changing, how consumers use information and how this impacts on tourism. Looking to 2050, will robots acquire human intelligence, illustrate emotions and think in an illogical manner? You may find that answer in this book.

Finally, what about the future of resources? In some countries social order has already begun to break down in the face of soaring food prices and spreading hunger. Could this be the portended collapse of global civilisation? Until recently it did not seem possible, but our failure to deal with the environmental trends that are undermining the world food economy – most importantly falling water tables, eroding soils and rising temperatures – forces the conclusion that such a collapse is possible. What if the world ran out of oil? We are at the point of peak oil or thereabouts according to Becken (2008), in which the maximum rate of global petroleum extraction is reached, after which the rate of production enters terminal decline. On the other hand, the world is increasingly paying attention as

environmentalism impinges on tourism. No transport means no tourism and climates affect tourism destination products such as skiing in the French Alps or sunbathing in Hawaii. Over the next 40 years, the world faces many challenges relating to the future of resources, whether it is food, oil, water or the environment, all of which will impact upon tourism. Therefore, the chapters of this book are clustered around Figure 1.1 whether it is the rising middle classes of China and India, the debate about the future of oil and aviation or emerging technologies such as claytronics used in hotel design.

Wealth

Chapter 2 'A New World Order: The Tourism Economy in 2050' addresses how the economic balance of power is shifting rapidly to developing economies of the world. China remains on a path to overtake the United States as the world's largest economic power within a generation, and India will join both as a global leader by mid-century. Traditional Western powers will remain the wealthiest nations in terms of per capita income, but will be overtaken as the predominant world economies by much poorer countries. In 2050, 4.7 billion people will take an international holiday that is, one in two of the world's population will become a tourist, compared to 1950 when 25 million people took an international holiday or a ratio of one in 1000. By 2050, we will see significant shifts in distribution patterns of world tourism. In one scenario, *The Best Case*, Europe's share of international arrivals falls from 50.7% in 2010 to 23.3% in 2050, compared to a significant shift in the Asia region with a growth from 21.7% to 50.3%. The purpose of this chapter is to examine what the world economy will look like in 2050, scenarios for the future of international arrivals and a discussion on future travellers from India and China.

Chapter 3 'Where Have all the Tourists Gone? Pensions, Demography and the Germans' states how in 2050 there will be 2.4 billion extra people on this planet, but many structures of the world's population will be fundamentally different in 2050, as a result of falling birth rates and longevity. Ageing populations and demography will be the trend that significantly shapes tourism flows and expenditure. On one hand, an ageing population means tourists will seek to extend the wellness years through well-being tourism, spirituality and medical procedures, whereas on the other hand the structural changes in pension provision from state and company to individual will reduce per capita wealth, particularly among German tourists. Chapter 4 'Tomorrow's Tourist: A Simple or Fluid Identity' examines two scenarios for the future behaviours and attitudes of the tourist. The tourist has demanded better experiences, faster service, multiple choice, social responsibility and greater satisfaction. Against this background, as the world has moved to an experience economy in which there is endless

choice through competition and accessibility because of the low-cost carrier, what has emerged is the concept of fluid identity. However, as wealth decreases that identity becomes simpler, a new thriftiness and desire for simplicity emerges. This desire for simplicity is driven by inflationary pressures and falling levels of disposable incomes, squeezing the middle-class consumer. As the economies of wealth slow down, whatever the reason, new patterns of tourism consumption emerge, whether it is the desire for domestic rather than international travel or what some call the staycation.

Technology

In Chapter 5, 'Edinburgh 2050: Technological Revolution' we encounter the possibility that we will control computers via tiny brain sensors and, like magicians, move objects around with the power of our minds. Artificial intelligence will be dispersed throughout the environment, and internet-enabled contact lenses will allow us to access the world's information base or conjure up any image we desire in the blink of an eye. This chapter identifies 10 drivers that will shape and revolutionise how tourists interact with technology, whether it is brain computer interfaces or haptic technologies. Chapter 6, 'Singapore 2050: Medicine, Science and the Meetings Industry' demonstrates how complexity and the pace of discovery is changing the world of science, technology and medicine, to the extent that simple human mortals cannot keep pace with this change, and as a consequence the meetings industry has been a beneficiary. The pace and complexity of change in the medical arena, the largest sector of the meeting's industry for the last decade, means that meetings are occurring more frequently in an effort to try to keep abreast of the complexity of change. Increasingly innovation is shifting eastwards as government and industry investment in science and technology grows; for example, Singapore's creation of a knowledge cluster in the pharmaceutical and biotech industry. Capitalising on this investment, the Singapore Tourist Board has created a meeting strategy to attract medical and science conferencing. This chapter looks at the future of the medical meetings industry in Singapore driven by the complexity of scientific change. Chapter 7, 'Amsterdam 2050: Sex, Robots and the End of Human Trafficking' suggests that the future of sex tourism in Amsterdam needs an innovative solution and the use of androids as sex workers is that futuristic solution. The present situation of human trafficking, sexually transmitted infections, pressure from the local community and the threat to the destination brand means change is inevitable. The chapter is based upon a story of The Yub-Yum club, a sex club for business travellers where entry costs €10,000 for an all inclusive service in which patrons are 'serviced' by android sex

workers; as a result, HIV and human trafficking is no longer a problem. The chapter discusses how such a scenario could come about, the impact and our relationship with technology.

Rugby Union, the number one sport in New Zealand and the All Blacks is the country's leading brand. Chapter 8 'New Zealand 2050: The Future of Professional Sport and Sporting Events' postulates that by 2050 demographic change will result in an ageing population and a smaller cohort of young students entering the sport. Looking to the future, how does New Zealand Rugby maintain its position as the sport of choice for participation, spectators and broadcast audiences? How do the All Blacks maintain their enviable historical winning records? Maybe, technology and science will revolutionise and enhance the game. This chapter provides a futuristic presentation of what rugby in New Zealand will look like in 2050 focusing on the professional game, sport science, interactive technologies, stadium and home experiences.

Resources

Chapter 9, '2050 California and Metropolis Los Angeles: Changing Landscapes, Cities and Climate Change' draws together the drivers of climate change, peak oil, rising sea levels and the continued scarcity of resources against a background of urbanisation. Research suggests that Los Angeles will have a climate that will be unbearable to future tourists and the rural landscape of California will undergo radical reshaping. Does this mean Los Angeles will be akin to the science fiction film *Logan's Run*, in which a reversal of fortunes occurs where ecotourism is an exclusive experience for the mega rich and tourism for the middle classes is restricted to an urban environment and controlled mass tourism excursions? Imagine a world in 2050, where the world is overcrowded and food production systems have failed. In order to feed this world, mass produced synthetic food is the norm. In Chapter 10 'Seoul 2050: The Future of Food Tourism' draws inspiration from the film *Soylent Green*, but is set in Seoul where 100 million people live mostly in housing that is dilapidated and overcrowded, and the homeless fill the street and line the fire escapes and stairways of the buildings. In this chapter, Kenny Jeong-Keun Oh and 'Liu', live in a gated community apartment complex. The community is self-sufficient in some foodstuffs due to a vertical farming system. For those that have money, real food and the cultural history of ancestors are luxury experiences. Kenny has booked an overnight stay in a traditional Korean guesthouse owned by the Yoo family in the city. This is a place where the elite of society can escape, live like their ancestors did and learn how to make Kimchi guided by Park Yoo, a 135-year-old chef. So, what does the above mean for the future of food tourism? A world where real food is the new authentic luxury? The chapter highlights a number of

important drivers including food inflation, the advancement of science and the role of food in society.

Chapter 11, 'Shanghai 2050: The Future of Hotels' emphasises a future world of contemporary design, sustainability and technological innovations as the foundation of the hotel industry through highlighting the growing pains of Shanghai where pollution, competition for urban land and decreasing availability of clean water will impact on the quality and price of accommodation in the city. The chapter draws heavily on innovative solutions to the future, such as claytronics, or programmable matter. The concept of claytronics combines nanoscale robotics and computer science to integrate sight, sound and feel into original ideas, allowing users to interact with the idea physically in three-dimensional form. The applications of claytronics would be the reconfiguration of everything, so just imagine the future hotel bed that could change its degree of comfort from a hard to a soft mattress without too much effort, the possibilities are endless. Or, the room attendant as we know today may become redundant in the future. New innovations such as cleaning robots act as labour substitutes as they provide faster and smarter ways to get jobs done. The final chapter, Chapter 12, '2050: The Future of Transport', postulates that with increasing pressure caused by the surge in demand for transportation of people and products, will alternative fuels and green economy initiatives develop to the point that transportation will continue to underpin the expansion in tourism? Is investment in transport infrastructure money wisely spent? Or will oil be the flip point in a sclerosis of travel? Is there an alternative to oil? Futurist literature discusses bullet trains, hypersonic travel, fourth-generation biofuels and even teleportation. This chapter looks at the critical issues pertaining to transport and tourism, examining what transport might be in 2050. So, in the words of Captain Kirk, 'Beam me up Scotty.'

Conclusion: Utility Value

If you are interested in the future, this book is for you. Its main purpose is to inform you of the possibilities of change, what is coming next, to stir your imagination, or to enable you to take knowledge and build your own scenarios. This book does not tell you the exact future, but possibilities of alternatives in order to help you make sense of the future thus reducing uncertainty and clarifying how and when change could occur, this is its utility value. By adopting a perspective of wealth, technology and resources. A series of worlds, pictures and stories about tourism in the year 2050. Many of these scenarios are happening now but some belong to the realms of science fiction. It is up to 'you' to ask yourself the question 'What if this "did" occur?' There are many features not included in this book, especially about 'how one would behave in the future', that is, will the world be cooperative