

# **Chapter One: The Efficacy of Futures Studies in Brokering Change**

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## **Abstract**

We strive to equitably equip and empower individuals to be active citizens in brokering sustainable organisations and societies. We empower them by the manner in which we engage them as people who understand embedded notions of the inevitability of change, recognise the necessity of individual, organisational and social learning; and engage them as participants in change processes. Through our proactive interactions or our passivity, we need to appreciate that we each have a stake in the future and we each do influence the future.

Futures Studies, as a set of established *approaches, schools of thought or disciplines*, explores the continuum—past, present, future—to develop frameworks to support an evolving understanding and a dynamic actioning of the interplays of ambiguity, complexity and connectivity as multi-dimensional aspects of our lives, our civilisation, our technology, our interfaces with the environmental and our ever-evolving culture. In so doing, it promotes a systems or trans-disciplinary thinking approach that places sustainable practices at the centre of strategic solutions.

Futures Studies can equip us to broker change and act as enabling agents. It can make us more insightful and foresighted in our consideration and design of multi-faceted sustainable strategies for addressing multi-dimensional issues, problems and challenges. It is within dialogue about possible, plausible, preferable and probable futures that sustainable change can be brokered and enacted. Central Queensland University as a learning organisation itself, and as a teaching and learning provider to its staff and student cohort (local, regional, national, international), embraces its role as a broker of change through a variety of future-looking processes and techniques. The ideals of grooming staff and graduates who are change

agents with a lifelong and lifewide love of learning, with a forward-looking perspective, is encapsulated in the university motto of *Doctrina Perpetua*.

## Introduction

The concept of brokerage is important in this chapter and is dealt with in more detail later. To make its intended meaning clear, it is defined here by Jackson (2003, p. 5) as “an intentional act in which the broker seeks to work in collaborative and creative ways with people, ideas, knowledge and resources to develop or change something”.

Humans are forward-looking beings, lifelong learners and magnificent adaptors of place, thought and object, who function as change agents—as brokers of change. If this is not the case, then why do we engage in short-term and long-term actions, such as saving, investing in superannuation, buying groceries for the next fortnight, raising children, investing time, energy and money into our educational processes and generating planning documents for developing our cities and their infrastructure into the near future? These examples are diverse and extensive. We are also inspired and both awed and belligerent in our interaction with our global environment and the expanse of space we seek to study, understand and alter to suit our anticipated needs and wants. We venture forth from the planet to explore outer-space in an endeavour to appreciate the past, present and future of the universe and to comprehend our place and purpose within it all. As McHale (1969) contends “A human being becomes such when he or she thinks about the future”. Futures Studies encompasses the continuum of the past, present and future to promote a dynamic understanding of ambiguity, complexity and connectivity as multi-dimensional aspects of our lives, our civilisation, our technology, our environmental interfaces and our ever-evolving culture. Thus Futures Studies enables—it equips us to be more insightful and foresighted in our consideration, planning and addressing of complex aspects of our lives that require multi-dimensional approaches and perspectives to respond effectively to such multi-dimensional issues, problems and challenges. It is within a dialogue about possible, plausible, preferable and probable futures that sustainable change can be brokered and enacted. We all have a stake in the future and do influence the future. This fits well with Berger (1967) when, describing the manner in which society, in order to avoid dangers and pitfalls, views the future famously said, “The faster a car goes the further the lights have to look”. How do we arrive at a meaningful construct of what it means to contemplate, describe or interact with the past (*then*), present (*now*) and future (*when*)? The mathematician and physicist Freeman J. Dyson considered the various time-scales which the human species inhabits. In Brand’s (1999, p. 35) *The Clock of the Long Now: Time and Responsibility*

he explains how Dyson explored this notion of time-scales and quotes Dyson as saying:

The destiny of our species is shaped by the imperatives of survival on six distinct time-scales. To survive means to compete successfully on all six time-scales. But the unit of survival is different at each of the six time-scales. On a time-scale of years, the unit is the individual. On a time-scale of decades, the unit is the family. On a time-scale of centuries, the unit is the tribe or nation. On a time-scale of millennia, the unit is the culture. On a time-scale of tens of millennia, the unit is the species. On a time-scale of eons, the unit is the whole web of life on our planet. Every human being is the product of adaptation to the demands of all six time-scales. That is why conflicting loyalties are deep in our nature. In order to survive, we have needed to be loyal to ourselves, to our families, to our tribes, to our cultures, to our species, to our planet. If our psychological impulses are complicated, it is because they were shaped by complicated and conflicting demands.

Such a perspective of time-scales precipitates the need to take a more strategic view of our world in order to better understand it, care for it, and plan for the future as a conscious panorama of possibilities and a plurality of alternative futures. These sometimes conflicting, certainly competing and almost always complex interactive facets of our lives are the multiplicities which constitute our social norms. Our understandings of time-scales are manifested in our cultural bias, our political stance, our impact on the environment, our *noetic*<sup>2</sup> outlook and ultimately they serve to define and inform our technological imperatives. Futures Studies operates credibly within such an apparently amorphous, understandably chaotic dynamic provided appropriate critical and epistemological discipline is apparent.

Another meaningful construct is what Elise Boulding (1978, p. 2) has defined as the *Two Hundred Year Present*. This is characterised by a time period stretching back a hundred years from today and stretching one hundred years forward from today. From such a temporal vantage point we become linked with both boundaries of this defined present moment by the people amongst us whose lives began or will end at one of these boundaries. This enables a more realistic critical appraisal of how the “world has behaved and changed in the last hundred years if we are to have any understanding of the forces that will shape the next hundred years” (Cocks, 1999, p. 3). Futures Studies can be described as consisting of a

<sup>2</sup> *noetic* (Greek: *nous*, meaning mind, consciousness, transcendental ways of knowing) is a preferred term to spiritual, and is used purposefully, in order to avoid confusion or invoke a meaning that *spiritual* equates to *religious*.

number of established approaches, schools of thought or disciplines. These range from what is termed pop futurism (trite, superficial and bereft of theory or insight) to the realm of Futures methodologies and tools (Delphi surveys and training, and problem-orientated methods such as scenario building, trend analysis, forecasting and modelling) to the area of Critical Futures (focused upon the processes of critique and epistemological investigation (personal and social construction) of the Futures Studies field and its tools and methodologies. A newly described school of thought is that of Integral Futures Studies which asserts that the “study of continuity and change in the external world can now be balanced by and with some very sophisticated frameworks for understanding the inner worlds of people and cultures” (Slaughter, 2004a, p. 846). Futures Studies promotes a systems or transdisciplinary thinking approach that supports sustainable practices. A catchcry of the teaching fraternity has been we are all teachers of English in ensuring the correct use of grammar, spelling and form of English expression. Ultimately we should all be teachers of Futures Studies. For it is in the manner in which we engage participants in the embedded notions of the inevitability of change and the necessity of individual and social learning that we strive to equitably equip and empower individuals to become proponents of and participants in active citizenship in brokering sustainable future societies. Furthermore, it is informal and formal learning which is the centrepiece of adaptive management of and engagement with the continuum—past, present and future. Our understanding and critique of the manner in which mechanisms and processes have evolved and are implemented, and whether they empower or enslave, engage or disengage individuals and societies in change, demonstrates that these facets of learning are true proponents in brokering change. It is in the provision of opportunities and mechanisms for learning and the technologies that support learning that we embrace our responsibility to provide impetus and avenues for brokering change. In the past, power bases, culture, recorded history and recorded knowledge derived from the emergence of villages, cities, city states and nations. The late twentieth century has seen the emergence of knowledge nations<sup>3</sup> which have the potential to become global knowledge brokers, power bases, overseers of recorded culture, recorded history and recorded knowledge, and purveyors of global knowledge management. No matter what our technical specialisation, whether scientists, engineers, geographers or historians, we all need to understand the importance of highlighting and enacting professional practice that promotes an appreciation for and an understanding of the past, present and future continuum and our place, our effect, our contribution and our determination of its actuality. For

<sup>3</sup> They have potential as virtual entities or communities without geographical boundaries and with a predominance of the English language as their linguistic medium.

no matter what, we are active participants in brokering change even when we remain inactive or unaware of the past, present and future continuum we inhabit. Central Queensland University adopts a futures orientation and has employed futures methodologies and techniques in development of its management structures and processes and in its strategic and operational aspects when exploring, formulating and delivering credible and innovative academic curriculum and research. In this way, it continues to engage with the people in its regional communities; with local, state and federal government representatives; local, national and international industry groups; and with educators and practitioners to build a sustainable future based upon a holistic approach to decision-making, which incorporates economic, social, environmental, political and temporal considerations.

## **Futures: Schools of Thought**

### **In the beginning**

Auguste Comte's (1896) discussion of the metapatterns of social change arguably predates Futures Studies as a scholarly dialogue of the influences humans can have in participating in creating a future. Comte contended that for humans to transform their environment to their advantage, humans must know the laws that govern the natural world, "For it is only by knowing the laws of phenomena, and thus being able to foresee them, that we can...set them to modify one another for our advantage...whenever we effect anything great it is through a knowledge of natural laws. ...From Science comes Prevision; from Prevision comes Action. (*Savoir pour prévoir et prévoir pour pouvoir.*)" (Coser, 1977, as cited in author unknown, 2005). The groundwork for what would become the field of Futures Studies was laid during the Second World War and was derived from the processes involved in think tanks. After the war the idea of national economic and political planning (most notably in the USA, France, the Soviet Union and the Eastern bloc countries) combined with the emergence of systems thinking. The adoption of these practices by organisations, such as the Rand Corporation (Dickson, 1972), contributed to moving the field forward albeit by differing approaches. However, it was the work of French philosophers of the 1960s, such as Gaston Berger (1967), Bertrand de Jouvenel (1967) and Pierre Massé (1963), that helped establish the notion that the future is essentially open and undetermined; indeed there is a plurality of futures. Their principal focus was not to wonder what kind of future we will have, but to ask, instead, what kind of future we want. The formulation of these ideas became known as the prospective approach, which was human-centric and emphasised the overall process of thinking or enacting the future as an attitude rather than a method or a discipline. These philosophers revised the foundations of Future

Studies, providing a framework that made sharp the contrast between the intuitive speculation about defining futures on one hand and deterministic visions of a predictable future on the other. These two divergent perspectives would be foci of further discussions and developments of the Futures field and in the works of pop futurists such as Toffler (1970) and Naisbitt (1984), and professional futurists such as Slaughter (1995, 1996, 2000, 2004), Dator (2002) and Inayatullah (1998). The importance of a futures thinking orientation and an appreciation of the consequences of human impact upon the earth arose from international perspectives taken in attempts to describe, discuss and resolve global issues. International groups interested in contemplating and studying the future developed during and following the 1960s. Examples of such groups are the Futuribles group (1960), the World Futures Society (1966), the World Futures Studies Federation (1967) and the Global Business Network (1987). The need to think of the future on a global scale was highlighted by a report provided to The Club of Rome entitled *The Limits to Growth*. This report defined a concept that became known as the global *problematique* and which identified perceived threats to the technological and social sustainability of the earth for future generations. Issues identified included resource depletion, deforestation, desertification, increasing energy consumption, increasing income disparities, loss of biodiversity, global climate change and the *toxification* of water, air and soils systems. Qualitative and quantitative Futures methodologies and techniques were developed. Herman Kahn (1965), a pioneer of the futurology field, and creator of the scenario method, advocated use of diverse philosophical and methodological approaches in Future Studies. Marshall (1997) identified general fundamental characteristics of Futures Studies approaches, namely:

- an openness to future possibilities and an emphasis on possible multiple futures;
- the acceptance of risk and uncertainty as a component of reality;
- an awareness of the opportunity and responsibility we have in taking decisions today that will affect long-term futures;
- the use of multiple techniques and multidisciplinary approaches.

While some may criticise Futures Studies as lacking a coherent conceptual framework underpinned by consistent concepts and theoretical paradigms, the publication of a collection of essays by senior practitioners in the field edited by Slaughter (2005), known as *The Knowledge Base of Futures Studies*, and another work by Bell (1997), entitled *The Foundations of Futures Studies*, may in time be heralded as pivotal works in establishing and providing such coherence. However, Masini (2005) highlights, “The growing interest in futures studies will most probably continue with different interpretations in the United States, Europe, Japan and Australia, but in my

opinion the greatest development will take place in what is still known as ‘the developing world’”.

### **Pop Futurism**

The release of books such as *Future Shock* (Toffler, 1970) and *Megatrends* (Naisbitt, 1984) served to popularise Futures as a field worthy of serious study. These works are considered as being in the category of *pop futurism*. Pop futurism is criticised by professional futurists as being at most times superficial and sensationalist in its manner of portraying the future. Although widely read they serve to undermine and confuse the credible scientific processes developed and adopted by serious futurists working to establish, expand and demonstrate the relevance and integrity of Futures Studies.

### **Futures methodologies and tools, Delphi surveys and training**

Futures Studies has analytical approaches, methodologies and tools which are problem-orientated and are exemplified by such processes as scenario building, trend analysis, forecasting, modelling, Delphi Surveys, backcasting and environmental scanning. Through these techniques professional futurists do not seek to predict the future but instead seek to interpret trends and possibilities.

### **Critical Futures**

Slaughter (2000) and Inayatullah (1998) are considered the leading scholars of Critical Futures. The field of study emerged from the intersection of Futures Studies and social constructivism. Critical Futures focuses upon the processes of critique and epistemological investigation (relating to both personal and social construction) of the Futures Studies field and its tools and methodologies. Slaughter (1989, as cited in Slaughter, 1996, p. 139) contends Critical Futures provides the methods and tools through which we may seek to “look ‘beneath the surface’ of social reality in order to realise the full potential of futures work”.

### **Integral Futures Studies**

A newly described school of thought is that of Integral Futures Studies, which draws primarily from the integral philosopher, Ken Wilber (1996). Wilber highlights that we need to transcend “*the flatland* imposed by three hundred years of reductionism and epistemological ignorance” (Slaughter, 2004, p. 299). In so doing Integral Futures Studies emphasises that there is no one perspective. Instead, a plurality of perspectives is valid. Thus there are many ways of knowing and so no one single paradigm is all embracing; having pre-eminence. Indeed it accepts that all forms of knowing, including

*analytical, rational, intuitive insight and spiritual inspiration* can be used as lenses to explore, describe, transcend and explain.

### **Piftures: Pictures of the future**

I have coined the term *piftures* to describe the types of pictures of the future or the images of the future that help us to explore alternative and multiple futures. The term *piftures* conveys the possibility of a what if scenario reminiscent of the process one adopts when doing a futures wheel. Bell (as cited in Hicks, 2002, p. xii) believes that the fate of civilisations as demonstrated by Polak (1951) in his seminal work, *Image of the Future*, “may rest on whether or not dominant images of the future in a society are, on the one hand, positive and idealistic or, on the other, negative and pessimistic”. Indeed Polak (1972, as cited in Hicks, 2002, p. 22) contended that certain images of the future can create a breach in time and that radically new images of the future can yield a sharp temporal and historical discontinuity and, as a consequence Hicks (2002, p. 22) highlights, “society begins to mobilise its creative energies to respond”. Indeed the visioning of future worlds by speculative literature, like science fiction, provides images of the future which dominate western society’s mindset and constrains attempts to describe the future. Reflect for a moment on the negative future images portrayed in Orwell’s *Nineteen Eighty-Four*, Huxley’s *Brave New World* and any number of disaster-driven, apocalyptic Hollywood-adapted science blockbusters and the manner in which society has responded.

However, these negative images are not the only form of descriptive futures arising from future-orientated scenarios that the majority of science fiction writers incorporate into their visions of future worlds. The futurist Robertson (1983) describes five possible scenario types:

- Scenario 1    The Business as Usual Future.
- Scenario 2    The Disaster Future.
- Scenario 3    The Totalitarian Conservationist Future.
- Scenario 4    The Hyper-Expansionist Future.
- Scenario 5    The Sane, Humane, Ecological Future.

Speculative literature provides a useful mechanism to explore images of the future and to critique our reactions to them. Likewise, Futures Studies and Futures research accomplish these same objectives but, unlike speculative literature, they do not make reckless, unsubstantiated predictions about possible, plausible, preferred or probable futures.



Dator (1979, as cited in Dator, 2002, p. 10) concludes that all images in all cultures that he has encountered fall into four generic images of the future:

- **Continuation:** continued economic growth
- **Collapse:** as a consequent of a major aspect; environmental overload, resource exhaustion, economic instability, moral degradation
- **Discipline Society:** organised around overarching values; considered ancient, traditional, natural, ideologically-correct, God-given
- **Transformational Society:** *high tech* or *high spirit*, emergence of new forms of beliefs, behaviour, organisation and (perhaps) intelligent lifeforms.

Futurists work with various images of the future and understandings of the power of Futures Studies. A change agent or broker for change can use the considerable conceptual resources of Futures Studies to promote the exploration, definition and enactment of more desirable futures whilst navigating the ambiguities, complexities and multiplicities inherent in considering issues, aspects and problems as they are presented in the myriad aspects of experience we call reality, constituted by political, economical, cultural, environmental, technological and noetic considerations.

So then the approaches taken to pursue visions of alternative futures, and the manner in which to plan and to act in accordance with such visions, is central to Futures Studies and Futures research and its application using Futures methodologies and tools in the planning and decision-making processes (Jungk & Mullert, 1987). It is only after research and comprehensive analysis and critique of current data and information, sourced through a range of Futures methodologies and tools, complemented by a preparedness to alter views as new information comes to hand, that an ongoing vision of the future can be formulated. The future is not static nor therefore should be Futures thinking and decision-making processes. As Dator (2002, p. 7) explains Futures Studies "... does not seek to predict things to come, so also Futures Studies does not try to study 'the future', since 'the future' does not exist to be studied. What does exist, and what futurists can and often do study, are 'images of the future' in people's minds. These images differ between individuals, cultures, men and women, social classes, and age groups". Indeed the key to understanding Futures Studies is to appreciate the concept of *images of the future* and its corollaries of forecasting alternative futures and *inventing preferred futures*, in contrast to any notion of the attempt of *predicting the future* (K. Boulding, 1956; Polak, 1961; Mau, 1968; E. Boulding, 1971; Bell and Mau, 1971, as cited in Dator, 2002, p. 8).

## Brokering Change

### An overview

Toffler (1974, as cited in Hicks, 2002, p. 14), in his influential work, *Learning for Tomorrow: The Role of Futures in Education*, outlines:

All education springs from images of the future and all education creates images of the future. Thus all education, whether so intended or not, is a preparation for the future. Unless we understand the future for which we are preparing we may do tragic damage to those we teach.

Hicks (2002, p. 328) supports the argument that Futures Studies is an important facet of brokering change in saying that “if all education is for the future, then surely exploration of the future needs to play a more central role in education”. Futures Studies is well suited as it supports holistic, connected, participatory, interdisciplinary and transdisciplinary pedagogies. These aspects are supported by Masini and Samset (1975, as cited in Slaughter, 2004, pp. 35–36) as being central to Futures Studies and they highlight that the “field involves intellectual and political activity concerning all sectors of the psychological, social, economic, political and cultural life”.

As indicated in the introduction to this chapter, the concept of brokerage used here is defined by Jackson (2003, p. 5) as “an intentional act in which the broker seeks to work in collaborative and creative ways with people, ideas, knowledge and resources to develop or change something”. In order to provide significant and influential insights to support brokers of change, Futures Studies must provide the mechanisms, methodologies and tools, skills and a knowledge-base, and must be taught using appropriate learning models to enable people to broker change through education, mediation, negotiation, advocacy, networking, intervention and innovation. All the while brokers must be conscious that the brokerage process has a tendency to commodify knowledge, learning and skills, turning them into something that can be bought, sold or traded.

It is learning that lies at the centre of adaptive management—individual and social learning—formal and informal modes. We are witnessing the emergence of a knowledge economy or a learning society supported by a learning economy. Knowledge, learning and skill as commodities is evident in the definition of a learning economy. In a learning economy, Lundvall and Johnson (1994, as cited in Harmaakorpi, Kauranen & Haikonen, 2003, p. 5), emphasise that knowledge and learning are crucial competitiveness factors and highlight that the learning economy is dominated by the information

technology-related techno-economic paradigm. Furthermore Lundvall and Borras (1999, p. 29) elaborate and define the learning economy as:

an economy, where the ability to learn is decisive for the economic success of individuals, firms, regions and nations. Learning, in this context, does not just refer to the acquisition of information or access to the sources of information, but to the development of new areas of competence and new skills.

Indeed Lundvall and Borras, (1999, p. 35 as cited in Harmaakorpi, et al., 2003, p. 5) believe that, in a learning economy, learning is given priority over knowledge as the creator of competitiveness as "... what really matters for economic performance is the ability to learn (and forget) and not the stock of knowledge". Kebir and Crevoisier (2002, as cited in Harmaakorpi et al., 2003, p. 5), consider knowledge itself as a process rather than a *body* or *stock*. Interestingly they consider the knowledge of learning as being the most essential skill. They define this as being that which covers the importance placed upon learning, the models of learning, including the strengths and limits of different types of learning, and the manner in which these limitations may be addressed.

What importance can be placed upon Futures Studies in a postmodern world supporting the emergence of a learning society? What equitable processes will evolve and emerge to ensure that we do not have a *knowledge rich* and *learning deficient* society? What learning model or framework can be adopted by educators, consultants, politicians, activists or indeed people in general to facilitate the brokering process?

Dator (2002, p. 15) when discussing Wagar (1992) says Wagar views Futures Studies as a:

natural part of the discipline of history, being simply history of the futures instead of the past. He very clearly points out that if study of the past is an acceptable academic endeavour then so must be the study of futures. The past is as 'unknowable' by empirical methods as are the futures. The past is also contestable and reinterpretable as are the futures. What one believes about the futures, as about the past, strongly influences what one believes about oneself, and how one acts today.

Orr (1992, as cited in Hicks, 2002, p. 39) contends that:

Education in the modern world was designed to further the conquest of nature and the industrialisation of the planet. It tended to produce unbalanced, underdimensioned people tailored to fit the modern economy. Postmodern education

must have a different agenda, one designed to heal, connect, liberate, empower, create and celebrate. Postmodern education must be life-centred.

Constructivist thinking is a promising candidate as a learning model but its full potential is not realised. Constructivism applies both to learning theory and to epistemology and thus relates to how people learn and to the nature of knowledge. At the centre of constructivist thinking is the assertion that knowledge is not passively received but actively built up by the experiential world. In this way learners individually and socially (social collective) construct knowledge or meaning for themselves as they learn. Begg (2000, p. 2) provides an insightful criticism of the constructivist teaching/learning model, while arguing that it is a powerful model in itself; his criticisms infer a more encompassing theory of learning is desirable. Begg (2000, p. 5) indicates these following criticisms:

- There is a lack of models for constructivist teaching.
- There is a lack of a critical dimension, which means that there is no mechanism to avoid the construction of undesirable outcomes (Taylor, 1996, as cited in Begg, 2000, p. 5).
- There is an undue influence in education and in what constitutes knowledge by the dominant culture, that is, the white middle class (Zevenbergen, 1996; Taylor, 1996, as cited in Begg, 2000, p. 5).
- Constructivism is concerned only with cognitive knowing. It does not explain unformulated or subconscious knowledge, it does not consider how things might be known intuitively or instinctively, and it does not consider how emotions are constructed or their role in learning.
- There do not seem to be explicit links made between constructivism and the learning theories that brain-science or neural biology offer.
- While constructivism has numerous forms with respect to an individual and a social focus, and a relativist or objectivist view of knowledge, no one form of constructivism seems to consider these differences.

Begg (2000, p. 8) advocates enactivism and highlights that:

in enactivism, instead of seeing learning as *coming to know*, one envisages the learner and the learned, the knower and the known, the self and the other, as co-evolving and being co-implicated. In this situation context is neither the setting for a learning activity, nor the place where the student is, the student is literally part of the context.

One is able to contrast enactivism with constructivism by emphasising knowing rather knowledge. Enactivism is based on the work of Maturana and Varela (1987) and their concept of autopoiesis in learning. That Futures Studies can be seen as a proponent of enactivism is strongly supported by the musings of Inayatullah (2002, p. 120) who emphasises that one of the enduring facets of Futures Studies is “its openness toward its self-definition” and that it is “one of the few global disciplines living and flourishing outside of conventional national and international boundaries of state and knowledge”. Thus it is well equipped to handle a rapidly changing knowledge-base as it is steeped in discourse and the process of knowing. Futures Studies has the ability to perform four interconnected and equally important key roles simultaneously, thus enabling a proactive Futures discourse to evolve, and so suits the enactivist model of knowing well, as it:

- enables understanding and acknowledgement of environmental, social, technological, noetic and cultural aspects within and across cultures;
- educates and informs through innovative tools and methodologies;
- brokers change through interconnectedness, ambiguity, complexity, methodologies, techniques, interdisciplinary, transdisciplinary and multiple perspectives;
- negotiates tensions between the intellectualisation of and the practical activation of possible, probable, preferred and plausible futures.

Thus Futures Studies, with its methodologies and tools and perspectives is the mindset, template or framework which forms the basis for developing and enacting the strategies for brokering informed, equitable and far-reaching change using a systems and transdisciplinary approach. It promotes and supports the mechanism of dialogue as opposed to discussion or debate, which means that participants have equitable standing. In this manner Futures Studies engages stakeholders, formally and informally, by brokering, establishing and supporting:

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|-----------------------------------|--|
| <b>strategic alliances:</b>       | long-term, purposeful arrangements for achieving defined goals;                                |
| <b>data/information networks:</b> | provision of access to collective information through evolving partnerships;                   |
| <b>knowledge networks:</b>        | provision of access to a knowledge-base;   |
| <b>communities of practice:</b>   | open accessibility to knowledge and expertise amongst stakeholders in order to build capacity. |

However these processes, methods and techniques must be envisaged as, accepted as, operate as and become cultural norms of a learning society. Lifelong learning is a powerful mechanism by which to embed, facilitate and sustain practices that constitute a learning society and in so doing create a societal culture of learning. Furthermore the expansive, collective and innovative framework of Futures Studies fits the lifelong learning model exceptionally well. Thus a methodology for brokering sustained and sustainable change that transcends, yet encapsulates, and which considers, yet critiques, the plurality of alternative futures and in so doing provides a seamless and complementary mechanism between formal and informal learning already exists—Futures Studies. Indeed it can furnish the mechanisms to enact change. Lifelong learning has become more of a descriptor encapsulating the need for formal and informal learning to become embedded into our everyday facets of our life (work, private life and leisure) than any particular school of thought or approach. However there are general characteristics of a lifelong learner. These are outlined by a variety of authors and organisations, with representative descriptions being provided by Hager (1995), Brown (2000), and Kearns (2004). As a guide a lifelong learner should possess and action learning via the following mindset, avenues and attributes:

<b>an inquiring mind:</b>	a love of learning, a critical perspective, exercising reflective practice
<b>‘helicopter’ vision:</b>	an ability to appreciate the interconnectedness of diverse fields, a breadth of vision and understand how knowledge is created, and the limitations of knowledge
<b>information literacy:</b>	ability to locate, retrieve, decode, evaluate, manage and use (written, statistical, graphical, tabular) information in a range of contexts
<b>sense of personal agency:</b>	a positive concept of oneself as both capable and autonomous in an individual and group context, and possessing self-organisational skills (e.g. time management, goal-setting)
<b>repertoire of learning skills:</b>	knowledge of one’s preferred learning style, understanding and ability to instigate a range of learning strategies and appreciate differences between surface and deep learning.

A lifelong learning perspective does not refer to what Fischer (1999, p. 4) describes as a “completely educationally managed society” nor does it characterise an “externally imposed requirement” but rather reflects a society in which learning possibilities exist for those who want to learn. The modes of learning adopted can be diverse (Fischer, 1999, p. 4; Livingstone (1998); Pilotti & Sedita, 2005, p. 9) and may include self-directed learning, learning on demand, informal learning and collaborative or organisational learning. This lifelong quest for knowing correlates well with what was previously indicated by Orr (1992, as cited in Hicks, 2002, p. 39) who emphasised that “postmodern education must be life-centred”. Futures Studies, as Hicks (2002, p. 128) succinctly explains, “describes a form of education which *promotes the knowledge, skills and understanding that are needed in order to think more critically and creatively about the future*” his italics.

## **Central Queensland University Demonstrating Change Brokerage Leadership through a Futures Orientation**

### **Futures-oriented management**

An example in which Central Queensland University (CQU) has worked to envision alternative futures and to achieve a picture of the University’s future in distance education delivery is through the strategies and scenario frameworks developed in the Hancock et al. (1999) green paper. In undertaking this type of change management, they have engaged with the University community (regional peoples, industry, staff and students) in a manner that exhibits their proactive futures-orientated stance and working knowledge of a Futures Studies philosophy by ensuring that a focus is placed upon the University community operating comfortably with uncertainty, ambiguity and continuous change. This is further resonant through their enunciation of concordance with Ramsden’s ideas (1998, as cited in Hancock et al., 1999, p. 7) about managing effective universities, and in particular:

helping staff to embrace change enthusiastically; trust its people; show concern for its students; help people develop their skills and commit to continual learning; manage both resources and people firmly, fairly and equitably; deliver high quality products and services on time and on budget; integrate imagination and information, independence and discipline, theory with application; live with paradox and nurture tolerance; and have the courage to admit inevitable mistakes.

With the massification of tertiary education and the emergence of the knowledge society in the later half of the 20th century, CQU has been at the forefront of actively realising the notion of the *borderless* university. As an educational institution, it has been consistently acknowledged as a leading Australian university in international education. The philosophical basis, the strategies and scenario-building evident in such policy documents as the *Strategic Plan 2006–2011 Creating an Opening to a Different Future* (CQU, 2006a) and the University's *Management Plan for Learning and Teaching 2006–2011: Interim Plan for 2006* (2006b) serve to articulate the manner in which CQU will continue to broker positive and distinctive change in the tertiary education sector in the 21st century. Such policy documents emphasise the importance of research and academic innovation and excellence and an ability to provide staff and students with the experiences, support and encouragement for them to continue to be leaders in our community and to expand partnerships and collaborations with external bodies and groups across all sectors and geographical and cyberspace boundaries.

In addition to this *top down* or teleological Futures-directed approach to strategic development (Luck, McConachie & Jones, this volume, Ch. 6), the University has a record of supporting *bottom up* development in which individual staff members and teaching teams adopt the role of change brokers and adapt new pedagogies and developing technologies to construct preferred futures for themselves as professionals in the organisation, and for the University itself.

The institution was established in 1967 as the Queensland Institute of Technology Capricornia. The first distance education courses were developed in 1972 by teachers in physics who were concerned by low enrolments and who saw developing needs for technologists in regional and remote areas as the resources boom began to emerge in Australia. This staff-brokered change led management to respond strategically by establishing the External Studies Department in 1978 to support development of distance education programs in science and business. This institutional commitment to distance education established CQU as a learning organisation that empowered staff as brokers of change with the result that a series of initiatives developed to apply educational technologies to educational needs. The outline history of CQU provided in the editors' introduction to this publication describes such developments; significant changes brokered by individuals include the use of email and bulletin boards in 1989, videoconference trials in 1991, and early use of use of the Web and initial development of Webfuse, an online learning support system.



Other chapters in this book provide other examples of *top down* and *bottom up* brokered change. The Student Journey project (Luck, McConachie & Jones), the Nulloo Yumbah Aboriginal and Torres Strait Islander Tertiary Entry Program (Hunt), and development of international education at CQU (Cosgrove & Cryle) provide some examples of *top down* or teleological initiatives in brokering of change. As the Luck, McConachie and Jones chapter points out, successful change in organisations requires that brokering of strategic, teleological change initiatives require complementary *bottom up*, ateleological, or more tactical brokering of change from participating staff. Other chapters in this book describe activities in which change initiatives were brokered from below. Development of a distance education mentoring program and online study support groups for distance education students (Sturges & Kennedy) and the use of the *Language and Learning* course in the Tertiary Entrance Preparatory Studies program to transform learners' perceptions of themselves as capable learners (Willans, McIntosh, Seary & Simpson) are two examples of staff-brokered change that have gained management support.

### **Futures-oriented education**

Central Queensland University has developed strategies for educating graduates to become successful change agents constructing possible, probable and preferred near futures. This is achieved through the development of programs at undergraduate and postgraduate level, which instill a Futures-oriented mindset. Consideration of pedagogical and andragogical approaches, supported by alternative delivery mechanisms, demonstrates the manner in which Faculties within CQU have developed programs that equip students with a Futures-thinking perspective. Consequently, students are being offered the opportunity to gain distinctive educational experiences, characterised by innovation, relevance and flexibility, which promote the knowledge, skills and understanding that are needed in order to think more critically and creatively about the future. Faculties have demonstrated leadership and brokered change in ensuring that graduates have educational experiences, which encompasses the development of both discipline and professional goals and objectives, as well as the development of generic skills and values.

This is evidenced in the development of such programs as the innovative undergraduate Engineering Programs that combine collaborative Project-Based Learning, an inverted curriculum with holistic assessment, and Work-Integrated Learning placements. By implementing a program designed to develop the graduate attributes and characteristics set out in the CQU *Management Plan for Learning and Teaching* (2006b) and graduate attributes specified by the engineering profession (Engineers Australia,

2005), CQU is producing graduates capable of brokering change. The attributes instilled in graduates include the ability to use a systems approach to design and operational performance; to function effectively as an individual and as a member or a multi-discipline or multi-cultural team as a member or manager of such teams; to apply Futures-directed principles of sustainable design and development; and to demonstrate a capacity to maintain professional skills into the future by a commitment to lifelong learning (Engineers Australia, 2000). A survey of recent graduates and their employers provides a strong indication that recent graduates, and students on work placements, are well equipped with skills and are capable of brokering change in their workplace (Nouwens & Jorgensen, 2006).

Another innovative undergraduate program, the Bachelor of Learning Management (BLM), has as its philosophical basis the redefining of the role of a *teacher* to that of a *learning manager*. Inherent in this reconceptualisation is the positioning of learning managers as brokers of change, instilling, inspiring modelling and enabling development of Futures-orientated learning by locating learning within the past—present—futures continuum of the lifelong journey. The role of the *manager of learning* is to establish and develop learning environments that build a commitment to and capability for lifelong learning and to develop communities of practice all encapsulated in a Futures orientation.

The BLM program's development arose "from the social imperative of education systems to prepare younger generations in appropriate ways for the challenges and responsibilities they will face throughout their lives, together with the provision of education and training throughout an individual's life" (Mienczakowski, 2003, p. 5). This approach requires capable learning managers who can:

identify pathways, diagnose learning problems, guide learning sequences, arrange transitions, establish competencies, make use of technologies and in many other ways, facilitate the continuous learning of students. 'Learning Managers' are 'designers' of individual and social futures. (Mienczakowski, 2003, p. 7).

At postgraduate level the Professional Doctorate offered by Central Queensland University "focuses on creativity, innovation and enterprise to generate new knowledge in the context of application that has commercial potential" (Smith, 2006). It is explicitly "transdisciplinary", draws upon the distinction between Mode 1 and Mode 2 knowledge (Gibbons, Limoges, Nowotny, Schwartzmann, Scott & Trow, 1994) and places a strong focus on Futures-thinking and methodology.

Lifelong learning celebrates the primacy of the learner and this is strongly reflected in the actioning of learning experiences in various undergraduate and postgraduate programs, as outlined previously. The emphasis is upon learning to learn, learning to transform information into new knowledge, and the ability to apply such knowledge over mere memorisation of specific information. In addition to development of programs of study with explicit Futures-oriented learning philosophies, CQU has demonstrated a commitment to Futures-oriented scholarship and staff development to support development of a university that is a learning community. An example of this commitment is the series of international Lifelong Learning conferences sponsored by the University from 2000 to 2006, with a fifth conference scheduled for 2008.

These conferences provide students, staff, professionals and academics from other institutions with the opportunity to engage with speakers and presenters with national and international reputations with a focus upon the celebration, challenge, encouragement and critique of all aspects of lifelong learning.

## Concluding Remarks

“Nothing endures but change” (Diogenes, 1969). In the text, *Twenty-First Century Capitalism*, Heilbroner (1993), the distinguished American economist, identifies capitalism as a global force that facilitates *kaleidoscopic change*. Heilbroner (1993) contends that coupled with and as a consequence of kaleidoscopic change, continual social transformations act as a two-edged sword and provide the impetus for cycles of *wealth and misery* and *development and damage*. This constitutes a state of permanent instability that has unexpected and unpredictable outcomes. Furthermore fundamental change has the effect of continually destabilising the system at the microlevel, resulting in multiple imbalances and upheavals. Owing to the speed and complexity of modern day change, society needs to devise and administer adjustments to both the positive and negative realities that arise from this upheaval, for the micro-level incidences and occurrences are continually emerging and effecting the system at the macro level. Brokering the change needed in the current and emerging frameworks of knowing, doing and being within the knowledge economy or a learning society can be synthesised using a Futures Studies perspective.

Futures Studies acknowledges the inevitability and necessity of change and the necessity of individual and social learning. Inayatullah (2002, p. 119) emphasises:

Teaching Futures Studies or conducting Futures workshops has numerous challenges. The process must be sensitive to each individual's cultural framework, to skepticism about the appropriateness of studying the future, as well as to a failure of imagination in thinking about the future, not to mention the complex ways we know the world.

Importantly, to articulate the scope of ownership and collectiveness, Inayatullah (2002, p. 121) elaborates upon the *we* by highlighting *we* to include women and men, civilisations, classes, people with disabilities and those without.

Futures Studies provide leverage to promote positive deviant ideas and behaviour. Coleman and O'Sullivan (1990, as cited in Hicks, 2002, p. 130), when discussing William Morris's utopian novel, *News From Nowhere*, challenges us to:

...imagine that life is not as it is, but as it one day might be. Let us inspect the unknown terrain of the future, as if we are about to inhabit it... The imagined future is a subversive force: the more who imagine a different kind of future, and imagine constructively, materially and determinedly, the more dangerous utopian dreams become. They grow from dreams to aims.

Wilson (2002, as cited in Slaughter, 2004, p. 251) describes our reticence for looking forward:

To look neither far ahead nor far afield is elemental in a Darwinian sense. We are innately inclined to ignore any distant possibility not yet requiring examination. It is, people say, just good common sense. Why do they think in this shortsighted way? The reason is simple: it is a hardwired part of our Paleolithic heritage. For hundreds of millennia, those who worked for short-term gain within a small circle of relatives and friends lived longer and left more offspring—even when their collective striving caused their chiefdoms and empires to crumble around them. The long view that might have saved their distant descendants required a vision and extended altruism instinctively difficult to marshal.

This concurs well with what was previously highlighted by Dyson (n.d. as cited in Brand, 1999, p. 35), that "...if our psychological impulses are complicated, it is because they were shaped by complicated and conflicting demands". Through Futures Studies and our ability to challenge, adapt and marshal our foresight, and by acknowledging our interconnectedness, we can engage in the deliberate imagining and actioning of alternative futures to entertain a cornucopia of possibilities and seek to broker change and create preferred futures. This chapter described how Central Queensland University, as a young, energetic and forward-looking university that welcomes change and sees itself as operating in a "boundless" tertiary environment, demonstrates its commitment to creating preferred futures and providing its community (local, regional, national, international) with innovative curriculum and research foci that brokers the change necessary to realise such multiplicities of opportunities and possibilities.

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