# Futures: In Search of Strategy

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*This is a paper about futures, strategy and a flexible suite of tools that leads from one to the other. It is about how to construct an adaptive toolkit that helps create the capacity to think in the future tense while acting in the present. Strategy is returned to its roots by exercising 'strategic foresight'. Strategic foresight embodies the intersection of futures analysis methods with strategic management processes. These roots are about knowing what questions to ask and answering them in sufficient depth to provide unique understanding.*

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*"Wack was convinced that his scenarios needed a tighter linkage to strategic planning and decision-making if they were ever to engage operations managers seriously and continuously."*[1]

Futures, as a relatively new field of enquiry, that emerged in the 20th Century, still invites debate. It faces all the problems and difficulties associated with a rising academic discipline. So too does strategic management. Charles Snow (1996) suggests that strategic management is not a field or discipline strictly speaking. It is part of the study of organisations. Practically, it may be useful to set aside, for a moment, these discussions surrounding the rigour of both disciplines and their intellectual foundations. These will be resolved elsewhere.

## *Which Future?*

*"There are two sets of futures, the future of desire and the future of fate, and man's reason has never learned to separate them."*
*Desmond Bernal (1929)*[2]

There is not one (or two), but there are many futures - official, desired, probable, possible, preferable, alternate, short-term, long-term, operational and contextual. Exploring these 'futures' are the areas of a futures program. They may be simply categorised:

- The future we think will happen (probable, official, forecasts, predictions)
- The future we want to happen (desired, future of desire, preferred)
- The future that is going to happen, regardless of what we want or think (possible, alternate, future of fate)

There are techniques and processes that may be used to draw out our views of these futures. Most move from the identification of the key driving forces, to marshalling facts and information (as well as opinion and perception) to create pictures broader than what we think will happen, and within which the future that we want to happen may need to be achieved.

All futures exploration aims toward deep understanding. This brings our worldview into sharp focus, often for the first time. The tools and process raise our awareness of our own assumptions and prejudices, and how these shape not only the future, but also what we see and the importance that we place on that. In so doing, we can understand futures from

the 'head' *(what if?)*, *however*, we also need to understand the future that comes from the 'heart' *(what do we most want?)*.

What we want is coloured by what we value. Wendell Bell makes a persuasive case that critical evaluation of the desirability of the ends, means, and future consequences of human action or inaction is an essential of futuring activities. He speaks about the ethical foundations of futures studies, noting that 'critical appraisals of value judgments and moral principles are fundamental to futures studies.'[3] He asks us to look ahead with preferences, because our preferences are the foundation for our intellectual scaffolding. They are, he says, 'the base or bedrock on which assertions about preferable futures and the good society rest.'

The key is being clear which future we are exploring, although as Bernal's quote implies the futures are to some degree inseparable.

## *The Basis of a Futurist's Methodological Approach*

Futurists come from a wide variety of backgrounds and form different preferences as to the theories they comfortably espouse, the tools and techniques they employ and the approaches they develop. Futurists may well look at the same issues and construct different understandings of, or attribute different meanings to, research findings. All are, however, trying to explore the same phenomena pointing to the future, to develop a deeper understanding of the way the future might unfold and shape the present. Thus, the futurist focuses on enabling critical decisions that will catalyse more effective and aligned responses to the key issues of the present with a shared understanding of the past and a vision of the future.[4]

Most futurists trade off professional mastery of the tools, inclusiveness of the process, costs, relevance and timing in determining a suite of futures tools they will employ in any given situation. The trade offs involve synthesis and a balance of the theoretical, functional and precursor challenges that become evident in establishing the scope of the initiative. These challenges are discussed below.

## *Theoretical Synthesis*

Futurists are intellectual beachcombers. They sift through and cull those ideas, tools and techniques from many fields of enquiry that have personal resonance and respect client sensibilities and requirements. This does not mean that they are light on disciplinary understanding and futures theories,

pushing their own agenda, or selling the 'next big thing'. On the contrary, successful futurists have to have command of a great number of analytical approaches. They must be able to quickly integrate new ideas, synthesise frameworks and deliver an outcome while being responsive to evolving client understanding. This resilience or 'adaptive capacity' is what contributes to their on-going employment.

Since HG Wells called for a 'systematic exploration of the future'[5], most practioners have combined elements of the, now much evolved, American and European approaches first set out in work by, amongst others, Hermann Kahn (1962)[6], Bertrand de Jouvenal (1967)[7] and Pierre Wack of Royal Dutch/Shell.[8]

## *Functional Synthesis*

Functional synthesis involves concurrently maintaining three views: futures as art, futures as science and futures as strategic management process.[9] If Michael Rothschild's observation (Binomics 1995)[10] that all relationships fall into one of four ecological classifications (the competitive, symbiotic, predatory and parasitic) is correct, then long-term futures favour the symbiotic.

The ability to hold concurrently multiple futures perspectives may be likened to a game many of us played as a child (Figure 1). Think of those handheld flat plastic containers that overlaid a cardboard game board on which a ball bearing rolled (a hand-held pin ball machine). The objective was to manipulate the ball bearing to the centre of the game board through skilful guidance of the motion of your hand. A similar balance and skilful guidance is required in functional synthesis of futures perspectives.

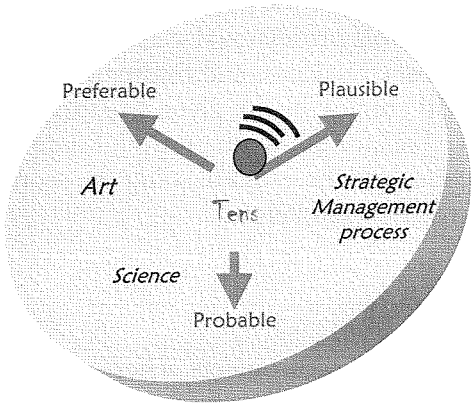


**Figure 1 Handheld Pinball Metaphor**

### *Precursor Challenges*

There are many design aspect in a futures study that can influence the choice of technique(s). Those already noted include the purpose of the study, the time frame of the study, the composition of the study team and the disciplinary background of the futurist. However, there is another variety of design factors that is important. These are what I have called 'precursor challenges'. Understanding precursor challenges or the study 'environment' adds texture to the design of the futures study. In cases where the development of strategy is important, consideration should be given to the following precursor challenges:

- Influencing without power
- Working through quality dilemmas
- Addressing dominant strategic thinking
- Systems thinking and a sense of crisis

*Influencing without Power*

Strategists influence without power. Bob Garratt (1996)[11] talks about a simple three-level hierarchy in organisations and industry that the Chinese have used for some 5,000 years, and which the Greeks evolved some 3,500 years ago:

- Policy
- Strategy
- Tactics/operations

While Garratt uses this hierarchy to explore the development of crucial skills of competent company directors, the hierarchy also illustrates the working domains of the futurist. The illustration of the hierarchy, as modified in Figure 2, represents the role of futuring in the enterprise as much, it may be argued, as it does the role of the independent board member. Futures is about setting direction, navigation and exercising influence without power.

Futuring too, adeptly exercised, has a unique ability to influence the day-to-day (operational) and the long-term (policy/strategic). This is about managing the tensions of those issues with what Peter Drucker (1973) called the greatest 'futurity' or with the greatest impact on the future. It is about the need to balance the long-term versus short-term and the external and internal, both of which require political 'nous'.[12]

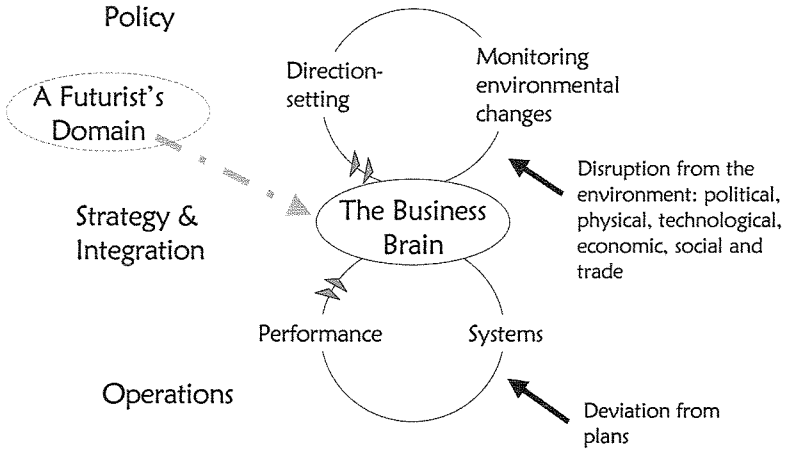


**Figure 2 A Futurist's Domain (adapted from Garrett)**

The 'business brain' that underpins the strategy enterprise is the domain of the futurist. Strategy is not a solo act. The centre does not act alone, and is not solely responsible for implementation of future directions. Fuller and Larue (2000) suggest "the co-ordination of foresighting activities provides a structure, and this co-ordination is as a network of actors rather than a centralised resource." This concept of who has a role in formulating strategy, once considered solely the domain of senior managers, is evolving.

*Working through Quality and Process Dilemmas*[13]

There are several facets to the 'quality' dilemma futurists must manage. Two seem to recur. The first affects the complexity of methodology. Complexity is often tied to assisting the analyst in creating richness and texture during option generation and strategy design. Futurists, used to taking a 'helicopter view', don't tend to like details but the business 'types' do, and they often view futures as too soft. Managers want to act decisively - on the 'facts' that do exist, after all, that is often the basis on which they are rewarded. In the absence of an imminent sense of crisis, decision-makers will not generally take a leap of faith.[14] Why worry about the ethereal, ambiguous and the non-factual? Why let go of the familiar and venture into the new and unknown? The problem, especially the desired management outcomes, often determines the level of abstraction used during the futures study.

The second refers to 'buy-in'. Tony Hodgson and Frances Tait of Metabridge suggest, "to ensure real impact on decision-making, responsible people must be involved in the project.... But decision-makers are busy people...and will tend to short-cut the process because of time constraints and simply challenge themselves, tending thereby to fall prey to habits of mind, "groupthink" and self-reinforcement and inevitably arriving at a superficial result." They call this the 'practioner's dilemma'.

The management challenge is to develop sufficient, credible information that persuades the strategic decision-maker to act.[15] The futurist's challenge is to establish a pattern of 'letting go in order to embrace'. This rhythm seasons activities and invites the organisation to navigate through ambiguities and create the future.

*Addressing the Singularity of Influential Strategic Viewpoints*

In Australia, the pool of strategists is small. For example, those that craft the Government's national security and defence policies number less than ten. The small pool of strategic thinkers equally challenges the corporate sector. The competition for talent is quite serious.

This generates two problems. The first relates to an old 'truism': knowledge is power. This can cause information hoarding. Thomas Davenport and Laurence Prusak (1998) suggest hoarders are knowledge sellers operating in a marketplace (for knowledge).[16] Their ability to be sellers is based on their reputation (and possession of substantial knowledge). In some instances, they will guard against knowledge dissipation. When strategies are decided within the inner circle, this leads to opacity in the strategy-making process. It is a very linear approach that does not draw on the richness of conversational strategy development processes.

The futurists' test is to become a knowledge broker, to make connections between those who hold knowledge and those who need knowledge.

The second problem a small pool of experts generates is when the expert is rewarded for being 'right'. In the most fundamental way, scenarios seek, as Pierre Wack put it, to change our 'mental maps' of the future. Scenarios (and broader futures studies) may be perceived as a challenge to the way we define managerial competence. Futures require decision makers to acknowledge the values to be gained from intuition and creativity as well as analysis (Raimond 1996). Futures work underscores uncertainty; we cannot know the future. It may well challenge what we 'know' and thus managerial competence. As a corollary, if futures is about reinvention, the often-invisible assumptions and premises on which decisions and actions are based may well be challenged. Confronting ta-

boos (undiscussable problems) too directly within a futures study may, however, constrain the dialogue essential for strategic thinking.

Experience suggests that methodological pluralism within a futures study allows mapping of taboos within a broader landscape, and is therefore less threatening to participants.

*Systems Thinking and a Sense of Crisis*

There is some truth to the old adage that the whole is greater than the sum of its parts. It is not sufficient to separately analyse different aspects of the system and then combine those analyses in an attempt to describe system functionality.[17] It does not lead to an understanding of extant behaviour of the system. Systems theory reminds us that if you break up an elephant, you don't have a bunch of little elephants.

Futures studies must be about studying systems dynamics, complex dynamics. However, a frequent difficulty relates to the inability to focus on key or critical interdependent relationships. Project team progress may stall and become, in effect, a debating society in trying to account for important, but not critical, interdependencies. This is very evident when an imminent sense of crisis does not exist.

Futuring is generally more effective when a 'sense of crisis' exists (or is created). Crisis speaks to relevance and relevance speaks to project 'buy-in' by key enterprise decision-makers. However, relying on a 'sense of crisis' to generate interest in futures is not without its own complexity. As the sense of crisis recedes and a sense of normalcy returns, interest in the 'future' may recede too. It is important to embed futures thinking in normal organisational purposes, processes and in people before this transition occurs.

## *Why Use Tools?*

In speaking of what inspires great artists, Eugene Delacroix once said '*It is not new ideas, but their obsession with the idea that what has been said is still not enough.*'[18] As with art, futures projects emphasise the power of ideas - finding them, testing them, reassembling them and forging them into sound action agendas that can guide and achieve outcomes. This requires discipline and professional mastery.

Any attempt to specify a methodology for futures research, is open to challenge.[19] But a special characteristic of futures research is that the subject matter is uncertain (the future) - there are no facts about the future. Futurists develop and use a number of different methodologies for study-

ing the future and change that are different from 'traditional' analytical means for studying the present and the past - on which 'facts' exist or can be produced. Since futurists believe in many alternative futures - in not only in looking at probable futures (based on extending past trends and developments into the future), but also creating preferable futures, and showing how one can move from here (the present) to there (the desirable future state) - a wide array of approaches is used to investigate the future. These range from: quantitative, left-brain methods to visionary, creative, intuitive right brain methods. Many methods may be employed; all use subjective information within a systematic analytical framework. Some approaches are more persuasive than others. In fact, Martelli argues that futures (scenario construction) suffers from methodological chaos and that this has led to skepticism about the usefulness of scenarios.[20]

Various tools one can use to augment judgment. A method's value often lies in amalgamating the judgment of many people, enhancing creativity, generating questions and ideas to produce different judgments, and demonstrating consistencies and inconsistencies among and within competing views of the future.

In original (unpublished) work on 'strategic planning tools', James Webster, William Reif and Jeffrey Bracker note, "On the one hand, most practitioners of strategic planning recognize the value of the process as a means of disciplining their planning activities and applying critical thinking to their business situation. On the other hand, there is a sense that the process has taken us about as far as it can. Future value added will come from the more extensive use of available tools and techniques that are capable of increasing managers' analytical and diagnostic skills."[21] While clearly not the 'only' answer, employment of futures tools and techniques raises the level of strategic thinking in both individuals and companies.[22]

This intellectual scaffolding is important; it is not, however, a complete answer. Implements are simply artifacts. They are substitutable. 'Innovation' in analytical approaches will bring insight to the practioner and process stakeholders.

## *Methodological Modeling*

Two methodological styles can be readily differentiated:

- An interdisciplinary set of futures tools, methods and techniques for thorough quantitative and qualitative analysis and creative thinking sit at one antipode of the style continuum.[23]

- At the other end, democratizing workshops and strategic conversations offer active and open participation in projects.

The former methodological styles are captured to some degree in the high-level model employed by Watts Wacker and James Taylor (1997).[24] An adaptation of Taylor and Wacker's model (see Figure 3) reflects isolation of the problem domain and strategy domain, and an emphasis on outcomes throughout the process.

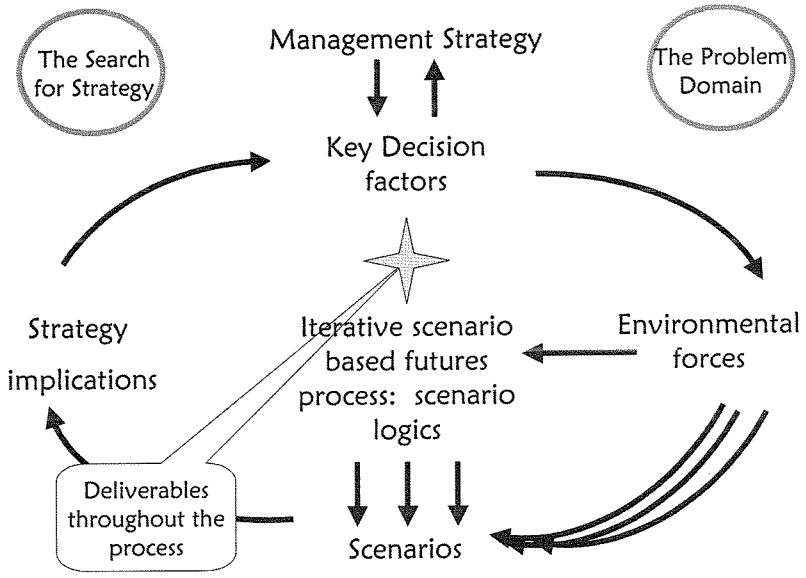


**Figure 3 Adapted from Taylor and Wacker (1997)**

Figure 4 illustrates a 'Futures Calculus'.[25] The calculus is built around five core outcomes:

- Adopting a systems-thinking approach
- Exploring the problem domain
  - A strategic conversation (strategic dialogue)
- Searching for Strategy
  - A future navigating process within the enterprise (and a robust strategic direction)
- Developing signals (indicators and warnings)
- Acting today (with preferences)

*Basic Design Principles*

The process depicted by the calculus is designed to focus on learning while maintaining project/operational relevance. Several basic principles underpin employment of the calculus:

- The first is simplicity.
  - Each element concentrates on achieving a few critical objectives
- The second is flexibility.
  - Each element permits reallocation of time and introduction of new analytical approaches
- The third is action.
  - The critical idea is that products and services useful to decision makers must and may be delivered throughout the entire futures process. Deliverables could, for example, be in the form of vision statements, political maps (and associated stakeholder analyses), trend analyses, emerging issues 'signal reports', exploratory scenarios, and strategic assessments. Outcomes that may be delivered from the beginning through to the end of the process, subject to refinement, reconfiguration, synthesis and integration at a level of abstraction appropriate to the decision maker(s).

*Déroulement or the 'Unfolding' of the Future*

The calculus does not portray a sequential process. It attempts to depict on-going and concurrent processes. In the French language, there is a word - 'déroulement' - which implies the unfolding of an event or series of events. The calculus is a two dimensional image meant to depict this set of concurrent activities that 'unfold' meaning through direct, relevant experience, strategic conversation and reflection. For example, strategies become evident when discussing stakeholder mobilization capacity. It attempts to identify tools that capture the key elements of what Sumantra Ghoshal[26] calls the 3P approach. 'People, Purpose and Process' - they matter in deciding how to act and where we want to go.

The 'toolkit' from which one draws calculus components is fairly clear. Tools and techniques include those needed to identify trends and discontinuities, construct hypotheses and scenarios, and reveal issues to be managed, dilemmas and paradoxes. The tools and techniques are sometimes borrowed from other disciplines, sometimes constructed. Some are well known tools for big-picture thinking (such as tools for visioning, setting B-HAGS, stakeholder interviews, team workshops, individual reflection)[27], others less so (such as tension analysis, polarity analysis and

vulnerability audits).

Which tools to use and in what way, and how to weave them together over the project time-span is the test of constructing each calculus. The calculus is re-designed to reflect the specific needs of each futures project. It offers a conceptual approach designed to engage the organization in combining its best hindsight and foresight in aligned action. The calculus is meant to complement the existing analytical approaches of traditional planning with a holistic integration of the intuitive, emotional and intellectual awareness of direct and indirect stakeholders.

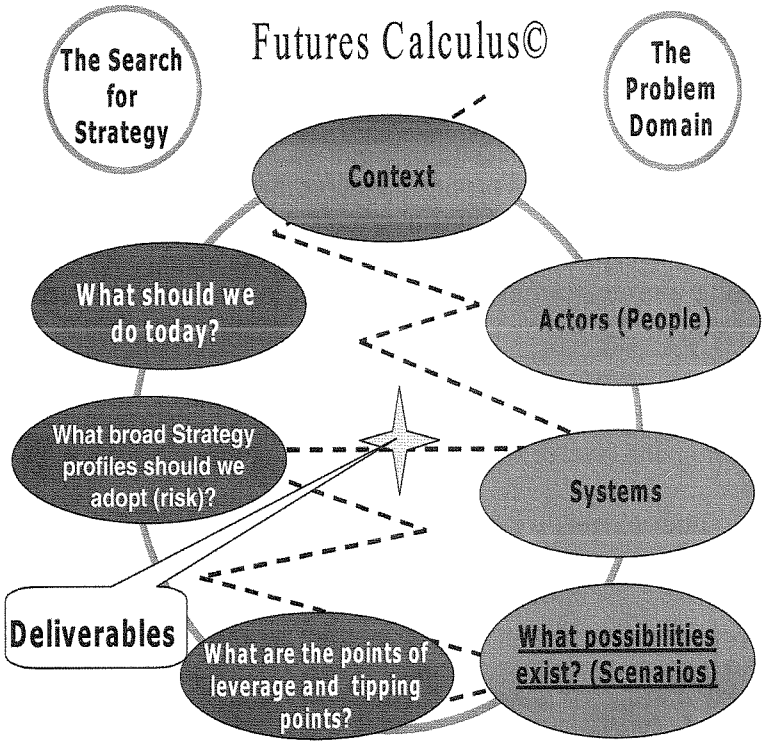


**Figure 4 A Futures Calculus Model**

### *Methodological Case Study*

Bearing in mind Slaughter's definition and Snow's admonishment, strategic foresight from a practioner's perspective is about how we an-

swer three organisational questions on moving forward with our preferences:

- What seems to be happening?
- What possibilities do we face?
- What are we going to do about it?

In operationalising the Futures Calculus, a range of suitable analytical tools and techniques may be used as building blocks that answer the three organisational questions and lead to specific client outcomes. The selection and order of building blocks vary with the issue. Each technique builds on the outcomes of the preceding technique to enrich the alternate futures developed and the action insights gained.

Progressive use of a suite of futures techniques nurtures a natural learning process, fostering dialogue and interest across different cultures, geographic regions, areas of expertise and interests. In particular, by using a composite tool approach cleverly, you may change your perspective and, in fact, capture good and innovative, sometimes novel ideas that evolve through a process of combination and recombination of the analyses delivered from individual analytical tools.

To borrow an idea, creativity specialist Roger Van Oech's theories about problem solving indicate that strategists - using futures - may need to stimulate four distinct skill sets to achieve innovation[28]:

- Look at all the possibilities (divergent thinking)
- Craft the ideas into a useable form (convergent)
- I'd add: hypotheses formation and testing (emergent thinking)
- Exercise judgment (hard questions, tough examination)
- Activity (or action).

The illustrative Futures Calculus exercise (Figure 5) details a prototypical futures study process that emphasises scenarios as the principal futures technique. The approach explores the future through a process of scenario construction and analysis involving two phases. This accords with Jari Kalvo-oja's view that scenario 'learning' or foresight has two critical elements: (1) constructing or developing scenarios and (2) integrating the content of scenarios into decision making.[29] In the first phase of the futures study efforts are focused on understanding the strategic context for the decision at hand (or issue to be managed). In the second phase, focus is concentrated more on defining strategies and managing risk.

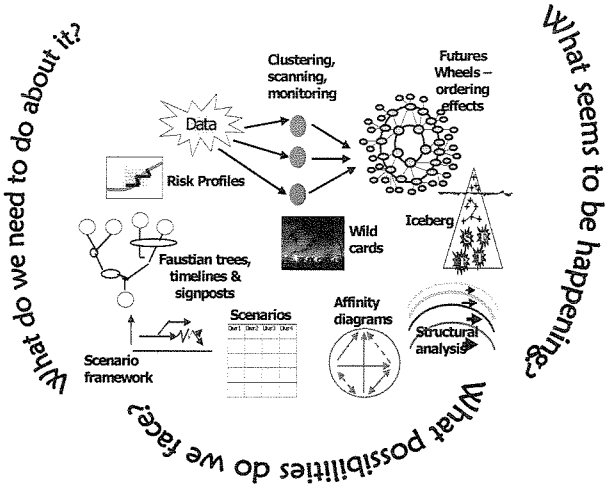


**Figure 5 An illustrative futures Calculus exercise**

## *What Seems to be Happening?*

In a futures analysis, the starting point is usually a combination of:

- A crucial strategic question (which must be owned by the decision maker); and
- A set of perceived uncertainties surrounding the question.

Phase One of the Futures Calculus is concerned with the problem domain. It is about understanding where the enterprise has been and framing questions, a large part of strategy is about asking the right questions.

- *Understanding the enterprise & its' interlocutors*
  - Describing worldviews
  - Cultural paradigms
    > Focusing on the cultural tensions that co-exist using techniques such as value-pairs analysis.
  - Surfacing Assumptions
    > Using techniques that have been developed to identify and explore assumptions including those such as the approach detailed in RAND's book on assumption-based planning.[30]

- *Understanding the nature of the problem space*
  - Gisting. Techniques to handle complexity of detail in information holdings, using clustering to move to higher levels of abstraction.
  - Futures Wheels. A simple but powerful technique to create context-rich information with a future orientation, able to flesh out scenario narratives.
  - Political Mapping. Techniques designed to organize the available information about the environment to focus on key stakeholders and those aspects of the terrain most important to the decision makers.
- *Framing a 'real-world' problem*
  - Concept Mapping. Techniques to understand how new developments, events, trends and structures could interact to affect each other and produce unexpected outcomes. These techniques can be used to provide guidance for classifying issues according to their dominance (i.e., their potential to affect or be affected by other issues or sensitivities).
  - Analysing structural aspects of the operating environment. Considering flexible societal structures (a dynamic system), the relationship between its components (that have different rates of change and different scales of size) and focusing on how this affects its resilience, ability to absorb shock, and points of policy leverage.
- *Identifying strategic dissonance*
  - Roger Martin (1998) notes, "What managers believe the strategy to be is less critical than the unconscious strategies played out in company behaviour."[31] At the organisational level, this assessment may help us identify gaps between today's reality and tomorrow's intent. The divergence between strategic intent and current action causes 'strategic dissonance'.[32] Liedtka (1998) argues that an appropriately reconstituted strategy-making framework would build in the possibility of institutionalising a process that continually examines the tension between the creation of the alignment necessary to support efficiency and effectiveness and the disruption of alignment necessary to foster change and adaptability. [33]

## *What Possibilities Do We Face?*

> *"As we enter these alternative stories, we are guided to practice a flexible approach to the future - prepared for the bending of trends through having experienced different scenario worlds."*[34]

In order to set out the range of future possibilities, the creation of scenarios is the most commonly used futuring device. There are many approaches to scenario construction and much has been written about what constitutes a 'good' scenario. There are several techniques that can be used to help develop the 'story' and scenario logics. Figure 5, for example, highlights exercises used to differentiate between events, structures, drivers and worldviews. It also shows that affinity diagrams are a useful technique to help sort the important from the interesting drivers. Whatever the techniques used, they should allow the analyst to handle the complexity of dynamism in information holdings, to develop new contexts, and to identify dominant relationships within those new contexts.

### *Scenarios Are a Set and can Be Placed in a Framework*

The literature and experience dictates that it is very useful to consider the scenarios as an interrelated set. Scenario frameworks provide a high-level conceptual map to illustrate themes and interdependencies within the scenario set. Frameworks convey the enormous challenges and opportunities about manoeuvre within the space. They convey the rich complexity of the whole spatial system. It helps enterprises understand the agility of their current business model(s), and discover alternate business models that might be equally functional in some future context. Frameworks also enable the enterprise to:

- *Develop a set of indicators and warnings* for the scenario space, as a basis for environmental scanning.
- *Be less surprised by disruptive events or wildcards* that have the potential to render obsolete or irrelevant one or more core competencies of a dominant player.
- *Appreciate emerging tensions and dualities that will co-exist* and that will need to be managed within the scenario space, and lead to nuanced strategy through development of associated scenario timelines and mapping techniques and thinking.

## *What Are We Going to Do about it?*

Phase 2 of the Futures Calculus is concerned with the search for strategy. There are many definitions of strategy.

*Strategy and Strategic Thinking*

There is a difference between strategy and strategic thinking. For Ralph Stacey (1992), strategic thinking is " . . . using analogies and qualitative similarities to develop creative new ideas . . . (and) designing actions on the basis of new learning."[35] Raimond (1996) reasons similarly dividing strategic thinking: "strategy as intelligent machine" (a data-driven, information processing approach) and "strategy as creative imagination."[36] Mintzberg et al identify four 'conventional' roles of strategic thinking: setting direction, focusing efforts, defining responsible organisations and providing consistency. [37] If strategy and strategic thinking are about intelligently connecting what we do today with the conditions that may prevail tomorrow, then with the risk of sounding presumptuous, it is about futures or strategic foresight.

Hamel and Prahalad[38] argue that strategy is about managing the present and pre-empting the future. A key issue for organisation(s) to grasp is that they are operating in two time zones. They must optimize performance in the present while simultaneously managing change to meet the circumstances of the future. Strategy is about maximising performance under today's circumstances; it is also about developing and deploying resources and capabilities for competing for the future. How does this happen?

Staff of McKinsey & Company describe three ways of formulating strategy.[39] Strategy can be formulated through: strategic thinking (creative insight gleaned from studying actors and environment), formal strategic planning (systematic, comprehensive approaches to developing strategies), and on an opportunistic basis (effective responses to unexpected opportunities and problems). Most senior executives, in the West, are more comfortable with the middle approach, less so with the other two formulation approaches. Futures techniques may be used in conjunction with all of the formulation processes.

The scenario builder must develop adequate challenges to the users so that relevant 'learning' can take place. Furthermore, to be effective in a strategic management context, the 'strategic conversations' related to scenarios have to be building a case for something. Says Hugh Courtney: "Most companies have no formal process for embedding the scenario method into corporate strategy, and that's the key."[40] A critical challenge for those practicing scenario planning and using other futures techniques is the answer to the question: How do you have conversations for action?

This is an historical problem with futuring. There are perceived difficulties in translating interesting scenarios into 'hard' products. The credibility factor - when, how and to what extent specific futures research efforts influence strategic outcomes - the actual effects and the residual capacity it creates - is often unpredictable, even under the best of

circumstances. Good futures research inevitably challenges the status quo. Success is influenced by the extent to which decisions-makers are open to strategic alternatives, are willing to consider options that will alter their sphere of influence, and have sufficient time to explore options before taking decisions.

Scenario planning areas, even today, need to establish a scoreboard. They need to show progress being made and value being delivered.

- What results has the work produced?
- What is now possible?
- What can we do (or do we do) better? More easily?
- How does this contribute to broader organizational understanding and goal achievement?

So what techniques and tools might appropriate the cloak of formulating strategy and improving credibility? What techniques close the door to criticism? They might include a combination of:

- *Translating scenario frameworks into Faustian trees*
  - Faustian Tree. Faustian trees map the scenario set to themes and interdependencies highlighted in the scenario framework, exposing potential strategic dissonance.
- *Identifying tipping points and/or leverage points in the system caused by the interaction of driving forces*
  - Tension analysis - comprising a look at paradoxes, paradigm shifts, quantum steps and unthinkables - provides a classification schema for identifying where systemic strategic effort should be concentrated. (A derived but more comprehensive approach to techniques such as polarity management techniques and vulnerability audits.)
- *Developing robust strategy settings* and understanding when strategic dissonance might arise
  - E-TOWS Analysis.[41] Strategic dissonance points to emerging threats, opportunities, weaknesses and strengths in the scenario space. E-TOWS analysis provides a basis for stakeholder analysis and risk profiling.
  - Stakeholder Analysis. Stakeholder analysis correlates key stakeholders and their respective agendas with E-TOWS to highlight strategic settings that are pertinent to the agreed focal question.

- Risk Profiling. Risk profiling applies risk portfolio techniques (including 'futurity') to assess the appropriateness and robustness of strategic postures across the scenario space.
- Prospective Evaluation. Constructing risk and relative attractiveness ratings for potential stakeholders.

• *Monitoring the effectiveness of strategy settings.*

- Signals, Sentinels and Indicators and Warning Sets. Systems that develop inference weaving, anomaly spotting and pattern recognition capacity used for identifying, analysing and tracking the trends and forces in the external and internal environments of organisations that might have a potential impact on their strategic directions, relevance, products and services, and survivability.

## *The Future Remains Open to Us*

*Every journey has a secret destination of which the traveller is unaware.*
*Martin Buber, Philosopher*[42]

Although the methodology of the calculus dwells on three questions (what seems to be happening, what possibilities do we face and what do we want to do), no futures study is complete without contemplating 'where to next?'.[43] Creating futures involves building our 'futures fluency', shifting the paradigms we hold and the business activities we undertake. Michel Godet (2001) argues that the future remains open to us, to be written or created collectively. This necessarily involves exploring Bernal's futures of desire. It also means moving from sense-making to sense-giving. Futurists use many different terms for this ability to sense and actualise emerging futures - this capacity to see and make sense of clues and evidence emerging in the environment - including consciousness and ways of knowing.

Gioia and Chittipeddi (1995) define sense-making and sense-giving as a process that 'involves calling into question an obsolete interpretive scheme, framing a new interpretive scheme in understandable and evocative terms, providing guidance for action toward the incipient change and exerting influence to accomplish it'.[44] Sense-making and sense-giving enable futurists to 'influence without power.'

Sense-making and sense-giving provide a reason and a process to engage in the creation of deeper understanding of how our present world operates, how this world is moving into the future and how we can change it. Godet contends that with the right tools and attitudes people can learn how to create futures.

## *Conclusion*

> *"Yet it was not the answers that mattered. It was the search, between the known and the unknown, the light and the dark...each piece of knowledge would generate new questions, and questions - not answers - were the goal: to look at a shooting star, or a dividing cell, or a person, or a universe and to wonder."*[45]

Futures has a place in strategy formulation, as long as strategists realise that there are no silver bullets that will guarantee organisational success. 'Dangerous enthusiasts' should neither oversell the approach, nor should it be undersold. Most futures methodologies complement the general encouragement to adopt a more outward-looking focus and management styles to deal with complex and crosscutting issues, and to address organisational boundary spanning problems, the long haul problem, and the vision - detail paradox. The outcome-orientation of the futures calculus and, in particular, the capacity to generate deliverables throughout and beyond a particular study engenders decision-maker engagement and improved prospects for appropriate strategic action.

The understanding that strategic possibilities require an organisation to tap into and use individual and collective knowledge and to use information from outside itself is important. A futures approach builds this capability through its processes and experience that allows the individual and collective to:

- Observe,
- Uncover assumptions and intentions,
- Reflect,
- Allow the common will to emerge,
- Cultivate a shared understanding of the present and the future,
- Take strategic decisions, and
- Act.

In the end, therefore, futures is not only about building robust strategies it is about being what Sohail Inayatullah calls 'post-structural'.[46] It involves 'the heart' and demands exploration of where we want to go or what Desmond Bernal called the future of 'desire'.

## *Author's Note*

I have been building and using the calculus style futuring approach for several years. In the early stages of its development, I worked extensively

with Grant Wardlaw, now Head of the Australian Bureau of Criminal Investigation and with Brett Peppler, CEO of iFutures Pty. Ltd. Brett and I still continue to grow, use and learn from the approach - which is still evolving - in many public sector, private sector and academic/teaching environments.

## *Notes*

1. *From Scenario Thinking to Strategic Action* by Ian Wilson, Principal, Wolf Enterprises recalling a meeting in the (Northern Hemisphere) fall of 1976 with Pierre Wack, who at that time headed Royal Dutch/Shell's Business Environment component, and his colleagues from General Electric's strategic planning staff. The focus of our discussion was to be the role of scenarios in corporate planning. On <http://horizon.unc.edu/projects/seminars/futurizing/action.asp>
2. J.D. Bernal (1929). *The Word, the Flesh & the Devil. An Enquiry into the Future of the Three Enemies of the Rational Soul.* Text published on <http://santefe.edu/>
3. Wendell Bell (1997) *Foundations of Futures Studies: Human Science for a New Era.* Volume 2. Transaction Publishers, 1997.
4. Sohail Inayatullah has an elegant system of explanation about the future. He suggests that we are all moving toward the future in three ways:
   - We are pushed by the need to change and by changes and improvements (especially technology),
   - We are pulled by the opportunities that are emerging,
   - And, we carry with us the weight of our history, of the 'belonging' that shapes our worldview and the traumatic events that have created the myths that are at our core. Sohail Inayatullah in a speech to the *APS Futures Forum* on March 12, 2002.
5. Wagar, Warren. '*H.G. Wells and the Genesis of Future Studies*'.World Future Society Bulletin January/February 1983, pp. 25-29.
6. Hermann Kahn wrote On *Thermonuclear War* (1961) and *Thinking the Unthinkable* (1962) using a 'scientific' approach - projections and extrapolations - towards scenario developments. Kahn, H. and Wiener, A. (1967). *The Year 2000: A Framework for Speculation on the Next Thirty Years.* MacMillan: New York provides some methodological commentary, much of which remains valid.
7. Bertrand de Jouvenal, French futurist, founded a think-tank called Futuribles where he pursued his studies on power, methods of governing, and political choices. In the Art of Conjecture in 1961 (translated into English in 1967) he wrote "The intellectual construction of a future is a work of art, in the fullest sense of the term, and this is what 'conjecture' means here". Another influential French futurist is Godet, M. (1987). *Scenarios and Strategic Management.* Butterworths: London. He is a strong proponent of morphological analysis.

8. Wack, P. (1985a). '*Scenarios: Uncharted Waters Ahead*', Harvard Business Review, Sep-Oct, pp.73-90. and Wack, P. (1985b). '*Scenarios: Shooting the Rapids*', Harvard Business Review, Nov-Dec, pp.131-142.
9. The principal objectives of futures research are to help inform perceptions, alternatives, and choices about the future by: 1) the art of the possible (laying out paths of probabilities); 2) the science of the probable (examining the likelihood of particular paths); 3) the politics of the preferable (implementing particular paths). *Views on Futures Research Methodology*, Amara, Roy (Senior Research Fellow, Institute for the Future, Menlo Park CA), Futures, 23:6, July-Aug 1991, 645-649.
10. Rothschild, Michael *Beyond Repair: The Politics of the Machine Age Are Hopelessly Obsolete* by The New Democrat (July/August 1995)
11. Garratt, Bob. '*The Fish Rots from the Head*' Harper-Collins Business Press: London.
12. 'Nous' is an Australian colloquialism for 'street smarts'.
13. Hodgson, Tony & Tait, Frances. (2002) *Crashing into the present: facilitating decisions through fast scenario thinking*. MetaBridge Ltd. (formerly Idon Ltd.) Edradour House, Pitlochry, Scotland, PH16 5JW, UK on <http://www.metabridge.com/>
14. Glenn, Jerome and Gordon, Theodore. (2000) *Twenty-seven ways to Make Your Futures Research More Effective*. Futures Research Quarterly. Summer 2000
15. Jeanie Daniel Duck on Managing Change: The Art of Balance (55-81) in Harvard Business Review on Change (1998) HBR Press: Boston. Jeanie Daniel Duck (1998) argues that achieving this balance is somewhat akin to balancing a mobile toy hanging over a bay's sleeping cot; it is about overseeing a dynamic. It means managing conversation between people leading the futures studies and those (including the enthusiasts and dinosaurs), at all levels, who will be responsible for its implementation, creating organisational context and managing emotional connections in the fashion posited by Daniel Goleman (1999).
16. Prusak, Thomas and Davenport, L (1998). *Working Knowledge*. Harvard Business School Press: Massachusetts.
17. Peter Senge's book, *The Fifth Discipline* (Doubleday, 1990), and its companion, *The Fifth Discipline Fieldbook* (Doubleday, 1994), are seminal works about systems thinking and its application to organizations.
18. Excerpt from Eugene Delacroix's journal of 15 May 1824 at <http://www.constable.net/arthistory/glo-delacroix.html>.
19. In early March 2002, the author attended a meeting with a reputed American futurist. We had occasion to speak about the tools and techniques he used when moving from scenarios to strategy. He dismissed the use of tools, preferring to use a series of filtering questions that travelled from the abstract to the specific, in strategy development for each scenario. He argued that employing tools curtails imagination and makes participants intellectually lazy. It made me think.

20. Martelli, A. *Scenario Building and Scenario Planning: State of the Art and Prospects of Evolution.* Futures Research Quarterly. Summer 2001.
21. Webster, James et al. (unpublished) *Strategic Planning Tools: Manager's Guide* (unpublished New Zealand).
22. Henry Mintzberg (one of the leading authorities in the area of strategic management, emphasises that strategic thinking is a particular way of thinking with specific and clearly discernible characteristics. In explaining the difference between strategic planning and strategic thinking, Mintzberg argues strategic planning is the systematic programming of pre-identified strategies from which an action plan is developed. Strategic thinking is a synthesising process that uses intuition and creativity whose outcome is "an integrated perspective of the enterprise." The problem, as he sees it, is that traditional planning approaches tend to undermine, rather than appropriately integrate, strategic thinking and this tends to impair successful organizational. Mintzberg, Henry. (1994) *The rise and fall of strategic planning.* New York: Free Press.
23. James E Almstrom in the '*Future of Futurism*' Futures Research Quarterly. Fall 1998 argues that 'a predisposition towards scientific methods and numbers-based arguments likewise contributes to professional respectability.' This is not as restrictive as it sounds. Almstrom readily acknowledges that the practices of futurism reflect the culture in which they are practiced.
24. Taylor, J. and Wacker, W. (1997). *The Five Hundred Year Delta: What Happens After What Comes Next.* Capstone: Oxford, p.239.
25. This name came about in discussions during 1999 with Alan Behm, then First Assistant Secretary Strategic Policy and Planning in the Australian Defence Department. Alan suggested the composite tool approach was similar to Newton's concept of calculus, which the author understands (barely) entails an exploration of the boundaries of numeric uncertainty. Futuring like calculating is also about bounding and deriving meaning from our uncertainty.
26. Ghoshal, Sumantra & Bartlett, Christopher (1997). Harper Business: NY. *The Individualized Corporation: A Fundamentally New Approach to Management (1997)* highlight the importance of individual initiative and creativity in creating value and developing competitive advantage. They argue that organizations that nurture individual talent and skills using a philosophy based on purpose, process and system are more effective in creating competitive advantage in today's business environment. They draw on learning from cases of companies such as Intel, Canon and 3M, to present a model of organizations that focuses on processes instead of tasks, and defines roles for managers at different organizational levels.
27. If companies are going to radically change how they interact with the environment, they need what Professor Jerry Porras from Stanford University calls B-HAGS: Big, Hairy and Audacious Goals.
28. Roger von Oech (1998) *A Whack on the Side of the Head.* Warner Books.

29. Kaivo-oja, Jari. Scenario Learning and Potential Sustainable Development Processes in Spatial Context: Towards Risk Society or Ecological Modernization Scenarios? *Futures Research Quarterly*. Summer 2001.
30. Dewar, James et al. *Assumption Based Planning. A Planning Tool for Very Uncertain Times*. (1993) Rand: Santa Monica
31. Roger Martin (1998) *Changing the Mind of the Corporation*(113-138) in Harvard Business Review on Change. HBR Press: Boston
32. Burgleman, A., Grove S. *Strategic Dissonance*. (1996). California Management Review, Vol 38, No. 2, Winter 1996
33. Liedtka, J. (1998). Linking strategic thinking with strategic planning, *Strategy and Leadership*, October, (1), 120-129. She suggests that alignment is both necessary and limiting. She points out that both academics and practitioners have embraced the McKinsey "7S Model" that aligns strategy, structure, systems, superordinate goals, staff, skills, and shared values, because it is well-recognized that purposeful, efficient organizational action cannot be taken if these factors work at cross-purposes with each other.
34. Davis, Ged. Shell International Ltd. *Creating Scenarios for Your Company's Future*. Conference Paper for the 1988 Conference on Corporate Environmental, Health, and Safety Excellence. *Bringing Sustainable Development Down to Earth*. New York City - 28 April 1998.
35. Stacey, Ralph (1996) *Strategic Management and Organisational Dynamics*. Pitman Publishing: London.
36. Raimond, P. (1996). *Two styles of foresight*, Long Range Planning, April.
37. Mintzberg, H., Ahlstrand, b, and Lampel J. *Strategy Safari: A Guided Tour Through the Wilds of Strategic Management*. Prentice-Hall: Herfordshire UK. 1998.
38. Hamel, G., & Prahalad, C. K. (1994). *Competing for the future*. Boston: Harvard School Press.
39. Article from a McKinsey staff paper "The evolution of strategic management" by Frederick W. Gluck, Stephen P. Kaufman and A. Steven Walleck (c)2000 McKinsey & Company on <www.mckinseyquarterly.com/strategy/thst00.asp>.
40. Hugh Courtney of McKinsey Co., quoted in an article "*The Uncertainty Principle*" by Bruce Melzer CIO Insight Wednesday March 6, 2002.
41. Geoff Coyle of COSMIC Holding Company in teaching at the University of New South Wales/Australian Defence Force Academy Strategic Analysis Course also reverses the well known "SWOT" (strengths, weaknesses, opportunities & threats) to TOWS to emphasise the need to search for opportunities and threats before considering organisational dimensions.
42. Burber, Martin quoted on <http://www.tripsource.com/html/quotes.htm>
43. Godet, Michel (2001). *Creating Futures Scenario Planning as a Strategic Management Tool*. Economica.

44. Gioia, GAC and Chittipeddi, K. (1995) *Sensemaking and sensegiving in strategic change initiation.* Strategic Management Journal November/December.
45. Galen in Invoking Darkness, by Jeanne Cavelos. Cavelos, Jeanne (2001). *Babylon 5: Invoking Darkness.* Book 3 of The Passing of the Techno-Mages trilogy. Based on an original outline by J. Michael Straczynski. Del Rey: NY.
46. E-mail from Dr. Sohail Inayatullah to the author dated 26 March 2002.

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