

Questioning the Future

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Methods and Tools for Organizational and Societal
Transformation

By
Sohail Inayatullah

Tamkang University

Published by Tamkang University Press
Graduate Institute of Futures Studies, Tamsui, Taipei, Taiwan 251
E-mail: future@mail.tku.edu.tw, info@metafuture.org
<http://www2.tku.edu.tw/~tddx/jfs/>

Third edition

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Inayatullah, Sohail, 1958 –.

Questioning the Future: Methods and Tools for Organizational and Societal Transformation

Includes index.

ISBN: 957-9078-85

How to order:

Available from Tamkang University. Center for Futures Studies, 151 Ying-Chuan Road, Tamsui, Taiwan, 251. US\$20 plus \$5 postage. International bank cheque. Future@mail.tku.edu.tw

Or directly from the author for AU\$35 plus postage (in Australia add 10% GST)– Australian cheque or wire transfer. E-mail: s.inayatullah@qut.edu.au, sohail@mail.tku.edu.tw or sinayatullah@hotmail.com. Or post order to: Sohail Inayatullah, 29 Meta Street, Mooloolaba, 4557, Queensland, Australia.

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Preface

Welcome to the second edition of *Questioning the Future*. This edition includes new chapters focused on the pillars of futures studies, teaching futures studies, new methods, and additional case studies. The case studies derive from nearly one hundred futures workshops run since the first edition came out. I would like to thank cities, businesses, associations, local, state and federal governments for initiating these projects. As well, the annotated bibliography has been updated.

While there are too many to thank individually, I would like to single out: Jennifer Bartlett, former Lord Mayor Jim Soorley, and Terri Birrell from Brisbane City Council; Jan Lee Martin from the Futures Foundation; Jan Archer (numerous organizations); Kelvin Spiller, Steve Gould and Phillip Daffara from Maroochy Shire Council; Pam Varcoe from Queensland Catholic Education; Robert Burke from Mt Eliza Business College; Jenny Brice from Fuji Xerox Australia; Kuo-hua Chen from Tamkang University; Gordon Prestoungrange from the IMCA, and Susan Leggett, who copy edited the entire manuscript and helped in many other ways.

This book initially grew from the graciousness of the International Management Centres Association awarding me the David Sutton Fellowship in Action Learning Questioning. Chapters on anticipatory action learning were specifically written as David Sutton Fellow.

Questioning the Future intends to bridge the divide between scholarly grand thinking on the future, particularly macrohistory and epistemology, with the details of managing the future. What links them is action learning futures, a method which iteratively questions the futures that we are given, thus creating the possibility of alternative and preferred futures. Hopefully, the methods and tools in this book will help us reject the often-used futures we are sold, and create the more authentic futures we seek for current and future generations.

The second edition of *Questioning the Future* is divided into four parts. The first section explores futures studies—its epistemology, approaches, trends, as well as case studies from the field. The second section focuses on futures studies and action learning, developing a new approach that combines futures studies and action learning to create anticipatory action learning. The ways in which the future can be used to transform organizations are articulated in this section. It is written for the manager, and moves outside of traditional scholarly writing. Extensive case studies are presented. The third section presents an annotated bibliography of significant works in futures studies. Section four is the appendix, which provides in bullet point form the main methods used in the field.

I: FUTURES STUDIES CONCEPTUALISED

This first part theorizes the study of the future, presents the five pillars of the futures field (macrohistory, anticipation, alternatives, ways of knowing and transformative knowledge) and describes how they are used in teaching futures. From teaching futures, we move to futures research where two policy studies—on transport and ageing—are presented. Macrohistory and its implications for the study of the future are then developed, first theoretically and then in the subsequent chapter as applied to the long-term future. Ways of knowing and difference, through the new research method, causal layered analysis, and through cross-cultural learning and future generations thinking, is presented next. Part 1 concludes with a discussion on the futures of futures studies.

One: The Study of the Future

Futures studies is the systematic study of possible, probable and preferable futures including, and of the worldviews and myths that underlie each future. Futures studies has moved from external forces influencing the future—astrology and prophecy—to structure (historical patterns of change, of the rise and fall of nations and systems) and agency (the study and creation of preferred images of the future).

Futures studies has been eagerly adopted by planning departments in organizations and nations. Yet there are clear differences between the planning and futures frameworks. Planning seeks to control and close the future, while futures studies seeks to open up the future, moving from the 'likely' future to alternative futures.

To understand the future, there are a variety of exemplary methods. These include, for example, emerging issues analysis, age-cohort analysis, causal layered analysis, and scenarios. These methods derive from different types of futures studies. Four types are crucial. The first is predictive, based on empirical social sciences. The second is interpretive, based not on forecasting the future but on understanding images of the future. The third is critical, derived from poststructural thought. It is focused on asking both who benefits by the realization of certain futures and which methodologies privilege certain types of futures studies. The fourth is participatory action learning/research. This approach is far more democratic, being based on stakeholders developing their own future, using their foundational assumptions of the future (for example, whether the future is linear or cyclical).

Ultimately, while futures studies is largely about the study of the future, at heart, the reasons behind the study are not only academic but about transforming the future, so that a more sustainable world can be created.

Historical attempts to understand the future

In most civilizations, humans have had a deep interest in what will happen to them, as individuals and as groups. The task of this chapter is to introduce the epistemologies and methods used in exploring the future. This chapter first touches upon the history of futures studies, then compares the futures approach to planning that uses traditional planning and policy frameworks, proposes a typology of futures studies, presents a range of methodologies and then, as exemplars, articulates scenarios for the futures of the world system.

Surveying human history, we can identify three types of attempts to understand the future: astrology, prophecy, and forecasting.

Astrology

In this view, life has patterns as mapped out in the movements and alignments of the stars. The basic ontological position was: as above, so below; heaven and earth should match. Not only could the world within be predicted but so also could the world without. By and large, the purpose of astrology was to help individuals avoid dangerous circumstances by providing an early warning system. The goal was to predict the future so that it could be personally controlled. However, belief in the astrological system was general, since warnings and forecasts as well as psychological analysis were not of an individual nature.

Prophecy

Prophecy assumes that certain individuals have access to deeper levels of mind, thus allowing them to see the future—to give glimpses of not only what might be but more importantly of what can be: the seer as visionary. The universe, for the few with higher, or more integrated, complete minds, can be predicted. Unlike astrology, prophecy was and is not based on the relationships between stars or on other criteria, rather it is visionary in nature. Prophecy is used to create new systems, new worlds, rather than to predict specific events. The act of prophecy is often located in one individual or a group of individuals.

Forecasting

While astrology and prophecy are given less credence by the moderns, it is forecasting that has become the technique *par excellence* of planners, economists and social scientists. Driving forecasting is a perspective that desires to make the world more stable and to control the future. The assumption behind forecasting is that with more information, particularly more timely information, decision-makers can make wiser decisions. Having more information is especially important now since the rate of technological change has dramatically increased, and continues to do so. However, the need for information, now as before, is driven by a fear of the future, a feeling of impotence in the face of forces we cannot understand, that seem larger than us.

In recent times, futures studies, in particular, has grown and, like astrology and prophecy, become semi-legitimate. Along the way, it has been modernised and adopted by corporate planners, policy institutes and government planning bureaus. Futures studies has become linked with short- and long-range planning. But there are significant real differences between futures studies and planning, which we develop below.

Planning and futures

When compared to planning, the futures approach is:

1. longer-term: from five to fifty years (even 1000 years) instead of one to five years;
2. concerned with creating the future rather than predicting the future;
3. committed to authentic alternative futures where each scenario is fundamentally different from the other. When planners use scenarios, they are often mere deviations of each other;
4. less likely to be used in a particular bureaucracy, for example, in the Ministry of Economic Development;
5. committed to multiple interpretations of reality (legitimizing the role of the unconscious, of mythology, of the spiritual, for example, instead of views of reality for which only empirical data exists);
6. more participatory, in that the futures approach attempts to include all types of stakeholders instead of only powerbrokers;
7. more concerned with the planning process, which is at least as important as the elegance of the plan itself;
8. less instrumentalist, concerned with more than just profit or power; and,
9. while a technique, is also very much action oriented. It is as much an academic field as it is a social movement and a vehicle for organizational transformation.

From the view of the planning discourse, futures is merely one approach among many necessary to create a good plan. Planning can have many dimensions; which four are critical: a Problem orientation (immediate challenges); a goal orientation (what we want, objectives); a Political orientation (to assuage the administration or leader); and a Futures orientation (long-term). For

planners, futures studies is useful as long as it aids in planning for the future and not in making problematic planning and policymaking.

Policy analysis, planning and futures research

The growth of futures studies is also a result of the desire of governments to find information that can aid in making better policy. Futures studies, along with systems analysis, is used to better understand the second and third order affects of specific policy decisions. For many, futures research is merely long-term policy analysis or research and should not be seen as a separate field or discourse. However, there are real and important distinctions between futures research and policy research/analysis, as the following table maps.

POLICY ANALYSIS	FUTURES STUDIES
<i>Short-range</i> orientation.	<i>Long-range</i> in its theoretical and action orientation; some futures research takes a 1000 year perspective.
One policy is chosen: the goal is not only to create new organizational directions but also to clarify current management decisions.	Examining the <i>range</i> of futures is the focus of futures studies: the goal is not only to create new organizational directions but also to clarify current management decisions. The future cannot be known, but we can determine what we want, distinguishing probable and preferred futures.
Policy analysis is concerned with <i>analyzing the viability of particular policies</i> . Like planning, policy analysis is more technical in its orientation.	Futures studies, particularly in its critical dimension, is concerned with <i>making basic assumptions problematic</i> . Futures studies is abstract: through what-if questions and scenarios, the intention is to move out of the present and create the possibility for new futures.
Policy analysis is <i>goal</i> oriented. The vision is rarely extra-rational, and while it may include a leadership dimension, the traditional planner or policy analyst does not usually consider spiritual and material dimensions in his or her planning process. Goals or objectives can be operationalized.	Futures studies is <i>vision</i> oriented. Visions work by pulling people along. They give individuals and collectivities a sense of the possible. They also inspire the noble within each person by calling individuals to sacrifice the short-term for the longer term, for the greater good. Finally, they help align individual goals with institutional goals. Visions cannot be operationalized. An organization or nation or civilization without a compelling vision of the future will decline, as Fred Polak has argued in his <i>The Image of the Future</i> . ¹ A vision thus must be extra-rational, it must include a leadership dimension, a spiritual dimension and a material dimension.
Within most planning exercises, plans are written so that the nation or organization can <i>appear</i> modern, giving the appearance that the future is under control.	The futurist might want <i>actual</i> fundamental transformation.
Policy analysis often takes a limited view of knowledge approaches.	Futures studies attempts to acknowledge the different ways individuals construct the world.

This last distinction between approaches to knowledge construction is important. Individuals behave quite differently in learning situations, whether at conferences or boardroom meetings. Some are creative; some are critical; some are practical; and others are passive. Very often, placed together in one room are those who want to get something done today, those who want to create a new future, those who want to criticize past, present and future, and those who want to do nothing. There are different knowing styles (intuitive, authoritative, reasoning, emotional and sensate, for example) and different leadership styles (authoritative, negotiable, consensus, for example) as well. To gain legitimacy in any policymaking process it is crucial to acknowledge these differences. Good planning, policy analysis and futures research need to acknowledge contributions from all these sorts of people, ways of knowing, and leadership styles.

In general, in planning and policy analysis, the future is often used to enhance the probability of achieving a certain policy. The task is to make the future less certain. The future becomes an arena of conquest and time becomes the most recent dimension to colonize, institutionalize and domesticate. Futures research, however, intends to liberate time from strict technique, from instrumental rationality. It asks, what are the different ways one can 'time' the world? How, for example, do different cultures, groups, and organizations imagine time?

Of course policy analysis itself is a dynamic field. For example, new models of policy development have attempted to move beyond muddling through (as needs or problems arise), rational-economic decision-making (material goals) and *satisficing* (do what you can, given political and budgetary limitations), arguing primarily that these strategies are not useful during times of rapid change and dramatic crisis. Muddling through, in particular, is of limited value during times of turbulence, since incremental policy change does not help the organization or nation transform to meet dramatic new conditions. The rational-economic model is useful at setting and achieving objectives but it does not take into account extra-rational efforts. It is overly dependent on quantitative factors, and reinscribes individual and national self-interest (balance of powers). *Satisficing*, while getting the job done, does not ask whether the job was worth doing. Interest in finding ways to include the possibility of discontinuous change, of forecasting trends before they emerge, has been a natural progression in the evolution of the policy sciences. Futures studies fits well into the effort of finding better ways for government and business to incorporate the unknown within decision-making.

While policy researchers would prefer investigations into the future that were more short-term, immediately beneficial to the organization, and framed within the language of the organization, futures research is, by and large, less concerned with predicting the future than with attempting to envision novel ways of organizing how decisions are reached and who is eligible to participate in these decisions. It does this by asking participants to envision their ideal organizational world and then aid in creating strategies to realize that world.

The politics of forecasting

From a critical view, to suggest that policy futures statements must be clear to the policymaker is at one level just banal. Institutions create obscure language because that language serves particular interests. It is the analysis of those interests (and the mechanisms that they employ to seek and maintain power) which becomes the vehicle for investigating what images of the future are possible and which likely to achieve reality. In this sense, enquiring how to make better policy or more future-oriented policy without investigating the political interests of certain policies is equally banal. Organisations stay focused in the present because bureaucrats and others are served by the current structure. Attempts to create new futures can undermine present power structures. Administrators agree to consider the future only to gain new political alliances or to achieve modernity (gain funding or prestige) but rarely to make structural or consciousness changes.

To summarize the above positions, it is useful to envision policymaking, planning and futures processes as having four dimensions or types. The first is predictive, the second is interpretive, the third critical and the fourth based on participatory action research.

Types of futures studies

In **predictive** futures studies, language is assumed to be neutral, that is, it does not participate in constituting the real. Language merely describes reality, serving as an invisible link between theory and data. Prediction assumes that the universe is deterministic, that is, the future can be known. By and large this view privileges experts (planner and policy analysts as well as futurists who forecast), economists and astrologers. The future becomes a site of expertise and a place to colonize. In general, the strategic discourse is most prevalent in this framework with information valued because it provides lead-time and a range of responses to deal with the enemy (a competing nation or corporation). Linear forecasting is the technique most frequently used. Scenarios are utilized more as minor deviations from the norm instead of proposing alternative worldviews.

In the **interpretive**, the goal is not prediction but insight. Truth is considered relative, with language and culture both intimately involved in creating the real. Through comparison, through examining different national or gender or ethnic images of the future, we gain insight into the human condition. This type of futures studies is less technical, with mythology as important as mathematics. Learning from each model—in the context of the search for universal narratives that can ensure basic human values—is the central mission for this epistemological approach. While visions often occupy centre stage in this interpretive view, the role of structures is also important, whether categorized by class, gender, or other dimensions of social relations. Planning and policy analysis rarely practices an interpretive cultural form of goal setting or impact analysis.

Critical futures studies aims not at prediction or at comparison, but seeks to make the units of analysis problematic, to *undefine* the future. We are concerned not with population forecasts but with how the category of population has become valorised in discourse. For example, we might ask: Why population instead of community or people? The role of the State and other forms of power in creating authoritative discourses is central to understanding how a particular future has become hegemonic. Critical future studies asserts that the present is fragile, merely the victory of one particular discourse, or way of knowing, over others. The goal of critical research is to disturb present power relations through making problematic our categories and evoking other places, scenarios of the future. Through this distance, the present becomes less rigid, indeed, it can become remarkable. The spaces of reality widen and the grip of neo-realism, of the bottom line, of the predictive approach loosens; the new is possible. Language is not symbolic but constitutive of reality. While structures are useful, they are seen not as universal but as particular to history and episteme (the knowledge boundaries that frame our knowing).

In the fourth type of futures studies, **anticipatory action learning**, the key is to develop probable, possible and preferred estimations of the future based on the categories of stakeholders. The future is constructed through deep participation. Content learning gives way to process learning. The future thus becomes owned by those having interests in that future. Moreover, there is no perfect forecast or vision. The future is continuously revisited, questioned. Not only is the product, delivery system or process questioned, but so is the image of the future. Who owns it? How does it circulate in the organisation? Is it visionary? Technical? Is there an official vision statement, and, if so, does it guide decision-making or is it merely ornamental?

Ideally, one should try and use all types of futures studies. If the need is for a population forecast, for example, one should ask how different civilizations approach the issue of population. One should also deconstruct the idea of population itself, defining it, for example, not only as an ecological problem in the Third World but relating it to First World consumption patterns as well.

Finally, asking individuals and communities how they construct population completes the circle. Empirical research must then be contextualised within the science of the civilization from which it emerges, and then historically deconstructed to show which elements a particular approach is missing and silencing. Crucially, the process must be participatory and iterative.

In the predictive first type of futures studies (most comfortable to planners and policy analysts), techniques such as linear regression, multiple regression, factor analysis and econometrics are most commonly used. All these assume that the future is based on the linearity of the past. They also assume that the empirical world can be known and that the universe is fundamentally stable, and reality primarily sensible.

But, given that specific events can throw off a forecast, futurists re-invented Delphi, or expert event forecasting. Delphi polling is done in many rounds so as to gain consensus, and is carried out anonymously so as to reduce the influence of a particular opinion maker. To link events and trends, futurists developed cross-impact and policy impact analysis, enabling the determination of how trends might change the probability of particular events. Policy impact analysis examines how the legislation of a new policy, such as providing special economic advantages for certain groups, might impact upon other social or economic trends.

Values

While these models can be useful, they do not include values, belief systems, and how we might want a particular experiment or cross-impact run to turn out. They also assume that research is conducted in an isolated setting, that is, research is divorced from the institutional and epistemic framework within which all of us exist. Researcher disinterest is critical in simulation modeling. However, what questions one asks, how one asks them—as well as the larger issue of what one considers of value—are equally, if not much more important in understanding the futures ahead of us. Moreover, as anticipatory action research informs us, subject and object, theory and data, should be interactive, dynamic. We cannot and should not remove ourselves from the research environment. Rather, we should be epistemologically clean, stating up front what we perceive to be our value commitments. Thus, ethics is increasingly playing an important role in imagining and analyzing alternative futures.

Chaos and order

As general scientific agreement has been reached that the empirical is not stable, chaos theory has become paramount as an attempt to manage disorder as well. The goal is to create a stable world, with the hope of transforming social structures by precise efforts, by acting upon a few attractors, a few specific variables. Even though chaos theory appears to be a break from traditional social sciences, chaos is, in fact, a version of ordered empiricism. Chaos has become important not because its metaphors make more intuitive sense or because it validates classic myths (the dance of Shiva, for example), but because it can be used as a forecasting tool to predict the future.

Complexity

Along with chaos has come complexity. Complex analysis seeks to reveal how our knowing efforts are complicit in our conclusions—the politics of knowledge. But complex and layered analysis is not easy to engage in since we generally do not desire to account for how our own worldview interests shape the future we predict or the alternative scenarios we posit.

There are clear market demands for reductionism. Students, governments, and business organisations tend to desire one future, a clear answer. The future is already hazy in their eyes, complexity makes decision-making immediately more difficult (but much easier in the long run). Complexity requires accepting that there are many factors that explain change and that there will always be some unknown factors, partly because our knowing efforts are complicit in that which we desire to know. Complexity also assumes that the novel may emerge in our research. Such

findings thus must be open ended, ready to be discarded if a new paradigm provides more elegant, informative, explanatory insights.

Complex analysis requires learning not only about things we don't know but things we don't even know we don't know. While there is no easy solution to this, a first step is to ensure that there is an environmental-futures scanning process (see below). A second step is that the process uses multiple methods—that is, empirical, interpretive, critical and action learning modes of analyses. A third step is ensuring that data/insights come from arenas outside official power; not just political power but official formulations of what is normal, what is sane, and what is conventional or acceptable reality.

In the health field, this means using multiple traditions: allopathic, homeopathic, naturopathic, and ayurvedic, for example. It also means that there is no one single cause for any disease but a multiplicity of factors from genes to environment to one's emotional state to ... Of course, there are times when one factor is dominant, but the point is that thinking about the future must be inclusive of different variables and of the worldviews that constitute these variables.

Complexity also includes emergence; the new can emerge from the old. This helps account for and include wildcards, dissenting futures and other realities and approaches.

Complexity, however, is not a return to systems thinking since the systems approach tends to be apolitical, generally assuming that subsystems are interest-free or that analysis of the future can be done in a neutral fashion. While the systems approach has guided futures studies well in the past few decades, its inattention to how the systems approach in itself is a particular type of politics, or language, leaves it handicapped.

General systems theory has now been reborn as general evolutionary systems theory, and has successfully managed to include chaos (non-linear dynamics) and complexity as part of its central hypothesis. Yet, it remains tied to the Western analytic tradition and thus remains simplistic. It has not managed to include epistemological perspectives of other traditions in terms of the shape of the future, nature of the self, or ways of knowing, for example.

Thus, most forecasting techniques, while technically rich, are meaning poor. They continue the politics of instrumental rationality, the metaphors of modernity, of the West—but the West not only as provider of wealth, but also as owner of time itself. Using a cultural framework to expand our vision of how we can think about the future, we need to attempt new avenues. To begin with, if we assume that how we think can influence how we act, then we need to investigate our basic concepts of space, time, and self.

Guiding metaphors of the future

One way to open up the future, to investigate preferred and possible futures, is to examine the metaphors used by cultures and individuals to describe the future they inhabit. In this method, one begins with conventional Western (because they are considered 'universal') metaphors of individual choice and rationality.

The first image is that of dice. The rolling of dice represents randomness but misses the role of the transcendental. The second is the river flowing towards a fork. It represents choice but misses the role of the group in making decisions. The third image is the ocean. It is unbounded but misses the role of history and deep social structures. The fourth image is that of river rapids dotted with dangerous rocks. It represents the need for information and rapid decision-making, but does not provide for guidance from others: leadership, family, or God. Other useful metaphors—less tied to Western images (from Fiji, the Philippines, India, and Pakistan, among other places)—include the coconut tree (hard work to gain rewards); the coconut (hard on the outside but soft on the inside); the onion (layers of reality with the truth invisible); the game of snakes and ladders (life's ups and downs are based on chance, the capitalist vision); and being a passenger in a car driven by a blind person (sense of helplessness). What is important in this

method is to find relevant metaphors based on the policy community's own cultural and historical experience and then to use these metaphors to construct an authentic vision of desirable and dystopic futures.

Emerging issues analysis

While metaphors help create futures sensitive to local conditions, they are less useful in predicting what might be ahead and in disturbing conventional views of what is likely. Most futures researchers use trend analysis to determine which issues are about to become public, or common place. However, prior to becoming a trend, is it possible to identify a nascent issue, an emerging issue? According to James Dator, emerging issues are those with a low probability of occurring but which, if they emerge, will have a dramatic impact on society.ⁱⁱ However, since these issues are often undeveloped—there is low visibility—Dator argues that one indicator of knowing that an issue is really an emerging issue, instead of a trend or problem, is that it should appear ridiculous. Issues should thus be disturbing, provocative, forcing one to change how one thinks, especially in challenging assumptions about the nature of the future. And, besides searching for emerging issues among the texts and stories of those individuals and groups outside conventional knowledge boundaries (the periphery, for example), it is first important to scan the available literature within official knowledge.

Scanning

In scanning, one has to digest vast amounts of literature and be able to determine issues on and beyond the horizon. On the horizon issues are generally those that are already visible, with sufficient quantitative trend data to show that there is evidence that they will continue to emerge. Beyond the horizon issues can be discovered by asking what is within the paradigm, what is outside, and what can transform the paradigm. Where are the leakages? What does not make sense? Issues that straddle these boundaries, that are outside conventional categories, often have the potential to become emerging (beyond the horizon) issues. Some examples of emerging issues are: the rights of robots; genetic engineering ending sexual reproduction; denial of sovereignty to certain nations because of their inability to meet human rights criteria; triple bottom line; passports issued by entities other than nation-states; a new United Nations functioning as an effective world government; and the end of capitalism. All these events are generally seen as unlikely—there is a great deal of uncertainty about their probability—but if they occur they will have a dramatic impact on society. Merely being unlikely or having a high impact, however, are not sufficient conditions; there must also be seeds, drivers, and reasons why one thinks the issue is emerging. Emerging issues analysis is different from fantasy production; it is searching for small ripples that might one day become grand waves, tsunamis.

Recent developments in scanning theory focus less on external trends and more on inner signals of change. Richard Slaughter and others at Swinburne University, Australia, are developing this mode of scanning.ⁱⁱⁱ The following chart illustrates the method.

INNER WORLD OF INDIVIDUAL MEANING	WORLD OF INDIVIDUAL CAPABILITY AND BEHAVIOUR
How individuals perceive and interpret the world and construct a sense of self	How individuals develop, learn, behave and interact with the external world
COLLECTIVE UNCONSCIOUS	'EXTERNAL' PHYSICAL WORLD
How we construct our shared, unconscious reality with its myths and stories—the collective unconscious.	How we create strategy, plans and budgets. Who gets what, when, and how.

What-if Questions

Equally effective in breaking out of conventional categories are ‘What-if’ questions. These questions challenge one to develop implications of an issue that most would currently think unlikely or absurd. It is useful that there is some element of possibility for the issue, especially if one is concerned with its predictive value. Even so, the most useful issues are those that create new categories of thought. For example, what-if genetic engineering developments lead to the banning of sexual reproduction and the creation of artificial humans? How might cultural diversity then be redefined? How might marriage? What-if Iran became a world economic and cultural centre?

Age-cohort and age grade analysis

Also useful in forecasting the near term future is age-cohort analysis. This method begins to touch upon the idea that the future is cyclical, not linear; that is, more like a pendulum than a racetrack or a highway with off-ramps. One asks: What are the main age grades that constitute a business, organisation or nation? How might institutions change as a particular age group matures and gains status and power? How will the volume and type of crime change as a group matures. Like class, age grades serve as an organising concept. For example, we know that Japanese and Western populations are mostly aging while Third World populations are much younger. Will there be age-wars? What will happen to innovation? Some estimate that by 2150 less than 10% of the world’s population will be ‘white’. Clearly that will have an influence on world culture and politics. Will current Western institutions continue their domination? Has the rest of the world internalised their categories such that color (ethnicity) will become a spurious variable? Age-cohort analysis also seeks to understand how subsequent cohorts will be different from current ones, for example, Baby Boomers from Generation X, from the emerging dot.com group and the yet to emerge, Double-Helix Generation.

Causal layered analysis

However, none of the methods outlined above adequately explore the levels or layers of an issue. Causal layered analysis (CLA) asserts that how one frames a problem changes the policy solution and the actors responsible for creating transformation.

Causal layered analysis asks us to go beyond conventional framings of issues, without privileging a particular level. Instead, it moves up and down layers, and horizontally across discourses and worldviews, increasing the richness of the analysis. In addition, what often result are differences that can be easily captured in alternative scenarios. Causal layered analysis is discussed in greater depth in Chapter Five.

Grand theories of social change

The worldview dimension of causal layered analysis begins to touch upon the grander issues of social change. Among the most useful approaches to futures studies are grand theories of social change. Of interest is how macrohistorians from different civilizations have attempted to answer the questions: What changes? What is constant? What are the drivers of change that are internal or external to the system? and, What are the stages of change? What is the shape of history? Is it cyclical or linear or a combination of both? The foundational issue for futures studies is: Are there underlying patterns of social change that can give us insight into the future, that can tell us where to look for insight? The following writers are of use in understanding the future. Their positions are summarized below, and considered further in Chapters Five and Seven.

As a starting point, Pitirim Sorokin believes we are in-between historical stages and about to enter an integrated phase of human history where the spiritual and material will co-exist, leading to a balanced dynamic society.

From P. R. Sarkar, we learn that there are four types of power: worker, military, intellectual, and economic. Each power represents different types of social class and stages in each history. A workers' era is followed by a martial, and then an intellectual, concluding with a capitalist. The cycle then begins again, endlessly. Each era expands, leading to innovation but then exploitation sets in, leading to the rise of the next era. Each class thus exploits the others and by doing so precipitates its own downfall. Exploitation is at its worst during the capitalist era. This eventually leads to a workers' revolution or evolution, followed once again by a centralisation of power in military elites. But, more than power, these phases represent our 'collective psychology', the dominant mental wave (to use non-empiricist language). For Sarkar, however, while these stages cannot be transformed, the exploitative phases can be eliminated, creating a progressive spiral. Like Sorokin, he believes we are entering a balanced integrative civilization.

For Arnold Toynbee, the most important variable is how the creative minority responds to civilizational challenges. Are such challenges met? Moreover, are we about to re-enter a World State or a World Church, or is there some other global configuration of power ahead? From Auguste Comte we are led to believe that modernity is the final stage in history. Science will solve all problems, and ideology is a premodern idea that hinders the creation of a good society. Herbert Spencer confirms this and believes that it is world corporations that will bring on the next ladder of human evolution.

But from Ibn Khaldun's sociology (mirroring to some extent Sarkar's position) we learn that over four generations power declines. Those in power lose the sense of unity they gained from the struggle to enter into leadership positions. Over time, leadership degenerates and new groups, often on the periphery, make a claim to power. And finally, Karl Marx postulates that what is important is how new technologies change social and power relationships.

Grand thinkers change the locus of discussion, away from trend analysis or five-year-plans and towards grand civilizational patterns. The project is not to determine if their work is empirically correct, but to ask how they can lead us in appropriate directions for social research, and what insights they can give us into the human condition.

The politics of time

Forecasting has political and value oriented dimensions, particularly in terms of the politics of time. We ask: Who owns time? How does it circulate in society? Central to cultural colonization is adopting the time of another culture. Different visions of time lead to alternative types of society. Classical Hindu thought, for example, is focused on billion-year cycles. Within this model, society degenerates from a golden era to an iron age. During the worst of the materialistic iron age, a spiritual leader, an *avatar*, rises and revitalises society. Classical Chinese time is focused on the degeneration of the Tao and its regeneration not through the avatar but through the sage-king, the wise societal parent.

Much of current global social debate centres on the ownership of visual and temporal space. One important futures method is to ask how different individuals and cultures 'time' the world. For example, women's time is often seasonal and lunar. Bureaucratic time is based on the ability to make others wait. Educational time is divided into a nine-month and three-month pattern. There are also the stages of life time: from birth to death, with in-between stages devoted to the accumulation of knowledge, wealth, enlightenment, or pleasure depending on one's cultural location. For example, the Indian vision of transition from student, to householder, to social service and *sanyassi* (monk) is considerably richer than the vision of study, work and die or retire in Florida that represents mainstream American culture. In corporate time, the higher one is in an organization, the grander the vision of time. For example, the CEO is responsible for 25-50 years; the Vice-president for 25 years; the branch president for the next year; the branch manager for monthly quotas; the plant or office manager for weekly projects; the clerk for daily activities; and

the secretary for immediate tasks. The level of activity is also more precisely specified the lower one goes down the pay scale.

Many misunderstandings occur among individuals and groups when they have different temporal expectations of one another. At the global political level, power is about convincing the other to adopt one's notions of time, whether this is A.D., B.C. or G.M.T. Time, then, is not universal but largely civilizational. Futures research attempts to investigate different visions of time, asking how they are constructed and politicised and what is the organisation's or group's preferred view of time.

Futures and poststructuralism

Next in the continuum of techniques to make the future less universal are methods drawn from poststructuralism. As alluded to earlier, the task in critical futures studies is to make the universal particular, to show that it has come about for fragile political reasons, merely the victory of one discourse over another, not as a result of a Platonic universal. Hence, one needs discursive genealogies that attempt to show the discontinuities in the history of a social formation, idea, or value. Through genealogy and deconstruction, the future that once seemed impenetrable is now shown to be one among many. As such it is replaceable by other discourses. Deconstruction then becomes valuable as a method of unpacking a text (broadly defined) and showing the discourses that inhabit it. Deconstruction moves beyond relativism by asking the price of a particular discourse. What future is put forth? What future is silenced? What is valorised?

Genealogy historically traces how a particular discourse has become dominant at the expense of other discourses. The shape and type of future (instrumental versus emancipatory, for example) is often different in each type of discourse.

In this construct, distancing is as important as genealogy and deconstruction. Distancing differentiates between the disinterest of empiricism and the mutuality of interpretative research. Distancing provides the theoretical link between poststructural thought and futures studies. Scenarios become not forecasts but images of the possible that critique the present, that make it remarkable, thus allowing other futures to emerge. Distancing can be accomplished by utopias as well—'perfect', 'no', or far-away places—other spaces. Which scenarios make the present remarkable? Make it unfamiliar? Strange? Denaturalize it? Are these scenarios in historical space (the futures that could have been) or in present or future space?

Scenarios

The foundational method in futures studies, however, is scenarios. Scenarios assume that there is not *one* future but a range of alternative futures. They help contour the unknown. For some they help predict the future. For others, they clarify alternatives. Scenarios are useful in that they give us distance from the present, allowing the present to become remarkable, problematic. They thus open up the present and allow the creation of alternative futures. Genealogy and deconstruction not only open up the future and present, they also open up the past, showing history to be interpretative. The task then is to create alternative histories, to show histories that did not come about, but that could have if a particular factor had been altered. Scenarios also have an important visionary task, allowing us to gain insight into what people want the future to be like—the desired future. These are important in that instead of merely forecasting the future, individuals become eligible to create the future.

There are a number of approaches to scenario development. These include: archetypal, single driver, double driver, content, organizational, contradictions and CLA.

The easiest method to use, the archetypal approach—developed by James Dator—consists of four core futures. The first is the *Status Quo*. This assumes that the present will continue into the future: more of the same. The second is the *Collapse* scenario; it occurs when the system cannot sustain continued growth, when the contradictions of the first model lead to internal collapse. The

third scenario is a *Return* or *Imagined Past*. This is a return to some previous time, either imagined or real. It is often framed as a less industrial, quieter, slower, and less populated society—‘the good old days’, if you will. The fourth scenario is *Transformation*, or fundamental change. This can be spiritual, technological, or institutional.

For the Third World (in contrast to the First World), *Status Quo* usually means a dual society, where one part grows and the other stagnates. *Collapse* refers to either natural disasters, or wars with neighbouring nations, or results from too-rapid modernisation. Ultimately, the collapse scenario is the failure of nation building. The *Return* scenario means going back to a simpler, village, communitarian life-style, often mimicking the status before technocracy and imperialism destroyed the local. *Transformation* means true sovereignty or nationhood, joining the world's wealthy on one's own terms.

Another way to design scenarios is to change the assumptions upon which they are built. For example, we can create scenarios of world politics based on alternative structures of power. The first would be a uni-polar world, a continuation of the present. The second would be a collapse of the inter-state system, leading to anarchy within states and between states. The third would be the creation of a multi-polar system, with numerous hegemonies, such as the United States, the European Union, Japan, China, India, and Turkey, each with their own spheres of influence. A corollary would be a return to a bio-polar world but with different actors. A fourth scenario would be a world government structure: policies would be created at the global level while implementation would be local.

Some examples: scenarios for South Asia and South East Asia

We can choose other drivers as well. In the following scenarios for South Asia we look at levels of integration, and at the tension between the local, regional and global.

1. Following the example of the European Union, South Asia becomes an integrated regional economy. Privatization leads to a flourishing of corporate and small-scale capitalism. This bourgeois revolution weakens the power of the feudal class. The Other ceases to be so frightful as friendships between NGOs and businesses develop. NGOs continue to work on softening the contradictions of export-led growth.
2. South Asia continues wasting wealth on military expenditures. Politics continues to become criminalized. Not only Kashmir, but Sindh and other provinces vie for independence. The nation-state project totally breaks down. Poverty and extremism remain.
3. Power and economy move to the village throughout South Asia. Traditional models of problem-solving, of health, and of agriculture begin to flourish. The feudal class becomes more enlightened in its policies towards the landless, but still remains in power.
4. A new model of development emerges that is both traditional (spiritual values, eclecticism) and modern (high-technologies such as the net and genetics). South Asia moves up the world economy rankings and traditional divisive values become far less important in shaping identity and politics.

We can also apply this type of thinking to different regions: for example, to South East Asia and ASEAN (Association of South-East Asian Nations).

1. South-East Asia becomes, like the European Union, a block in itself, with the free flow of capital, ideas and labor. Identity remains culture-based not economy-based. This will mean a loosening of ties both with Japan and the US. With foreign powers absent from security provision, will a local regional power rise and attempt to enforce hegemony, or will there be economic harmony between actors?

2. South-East Asia becomes far more bilateral in relations and is supplanted by the Asia-Pacific Economic Community. This occurs because of the realities of world interdependence, of US markets. South-East Asian nations remain committed to Japanese technology and American markets and military protection. However, local battles over cultural rights and media penetration, and over issues such as ‘civilization’ and ‘universality’, continue to emerge.
3. South-East Asia fails as a regional grouping. In this scenario, South-East Asia fails at becoming a regional entity except for minor cultural exchanges. The main task remains national development. Crises are solved through mediation by Japan or the US. A regional model of identity or a regional model of wealth and distribution does not develop.

These scenarios remain committed to the model of governance that privileges nations before individuals, communities, and people’s associations. Using the notion of layers of reality, what is missing are the role of ideas, of the Earth itself, of women, of alternative ways of seeing the world, and of non-statist nominations of reality.

Reconfiguring the present

Scenarios, then, should not only find alternative routes out of the present, they need to configure the present differently, using radically foreign and unfamiliar notions of the future. The ability to reinterpret the past, contest the present, and create alternative futures is what makes futures studies different from routine social science, planning or policy research. The task is not only, for example, to imagine alternative futures for the United Nations but to rethink governance, power and structure, to call into question current notions of how we organize our social and political life.

For example, from this perspective we can imagine an alternative model that:

1. is sensitive to the role of the transcendental (in terms of inspiration and in providing a direction);
2. includes a range of economic organizations (co-ops, small businesses, and large state/private run efforts);
3. is committed to a layered theory of representation, a vision of democracy that has vertical (authority) and horizontal (participatory) elements;
4. has a different balance between the individual and group;
5. creates a culture that locates the environment as nested within human consciousness; and
6. attempts to balance spiritual and material factors, believing both are basic factors in creating a good society including as social change drivers.

Thus questioning is crucial. What is included and what is missing in any scenario? As well, there is more than one way to develop scenarios

Developing scenarios

Along with the archetypal method presented above, there is the single driver method. Each scenario is based on a different driver: for example, in physical futures one can develop scenarios based on technological developments (a *Star Trek* medical scenario), on a return to values (listening to patients), on corporatization (small medical centres being bought out by larger companies) and on diversity (the multi-door health centre).

Making the process more complex is the double driver method. In this, four worlds are created. For example, the first variable could be globalisation with economics on one end and culture on the other. The second variable could be technology, with digital on one end and industrial on the other. The four resultant scenarios are: (1) economic globalisation with digital technology (global cyber futures); (2) economic globalisation with industrial technology (clear winners and losers

because of the new international division of labour with factories moving to cheaper sites); (3) the third scenario would be cultural globalisation with digital technology (leading to the world wide web futures and the opening up of cultural space through greater access to world media); and finally, (4) cultural globalisation with industrial technology (leading to questions of equity and control of media and information by the rich nations and companies).

There is also the content method of scenario construction. This is based on scanning literature sources and determining the main world futures. These currently are: (1) Fortress OECD—issues of security and sovereignty as primary; (2) Gaia tech—issues of green, multicultural, spiritual, gender partnership values along with the use of digital technologies to create one world; (3) The Great Divide—continued divide throughout the world and within nations along economic, technological and health fault lines; and (4) Postmodern futures—difference augmented by the impact of the new technologies (genetics, artificial intelligence and nano) as well as by social changes (challenges to empire, industrialism and patriarchy). The content scenarios create templates from which one can ascertain how particular units will look. For example, how might a particular city or organization or nation look in each future.

An excellent scenario approach for organizations is the model developed by Clement Bezold of the Institute for Alternative Futures.^{iv} It consists of four scenarios: (1) Business as usual; (2) Best Case; (3) Worst Case; and (4) Outlier (based not on a current driver but on emerging issues)

Johan Galtung^v takes a different tack in his scenario work, and focuses instead on contradictions and tensions in the current system. Through mapping these contradictions and tensions, we can deduce plausible futures. For example, aged versus youth, city versus farm, and globalisation versus localisation. From these tensions, scenarios can be derived. For example, the contradictions inherent in globalisation and localisation lead to several plausible scenarios: (1) globalisation eradicates localisation creating an authoritarian world government; (2) globalisation is created with appropriate sovereignty at both levels; and (3) globalisation falls apart as local movements change the terms of power. The assumption in this scenario method is that the world is not harmonious but fraught with differences, with competing interests. By deducing some of these differences, we can develop a model for the future.

The last scenario method is via causal layered analysis (CLA). Scenarios can be developed at each level—litany scenarios (based on growth figures, for example), systemic scenarios (an integrated healthy system versus an inefficient health system, for example), worldview/discourse scenarios (a future wherein the medical health model is paramount versus a complementary model versus an integrated system), and myth-metaphor stories (death and dying with dignity versus the search for the fountain of youth).

Finally in any scenario method, one can move the scenarios through time, seeing them as dynamic instead of as static photographs of the future. These varied approaches can be mixed and matched as well. For example, CLA can be applied to the organizational model, and the contradictions method can be used with the double variable approach.

Conclusion

To conclude this chapter, futures studies research is concerned not only with forecasting the future, interpreting the future and critiquing the future, but also with using anticipatory action learning, and with creating the possibility of alternative worlds, authentic futures.

ⁱ Fred Polak, *The Image of the Future*. trans. Elise Boulding. San Francisco, Jossey-Bass, 1973.

ⁱⁱ James Dator, *Emerging Issues Analysis in the Hawaii Judiciary*. Honolulu, Hawaii Judiciary, 1980.

ⁱⁱⁱ Richard Slaughter, *Futures for the Third Millennium: Enabling the Forward View*. Prospect Media, 1999. See Also Peter Saul, "This Way to the Future", *Journal of Futures Studies*. Vol. 6, No. 1, August, 2001, 107-120.

^{iv} See Clement Bezold at <www.altfutures.com>

^v See Johan Galtung at <www.transcend.org>