

## Chapter Three: Looking Forward

Chapter 1 provided an account of what has arguably become dysfunctional within Western Industrial culture. Chapter 2 showed how some of these inherited defects affect our major institutions in the present. This chapter begins the process of looking ahead by asking some key questions. What can we know about the future? What are the real megatrends? How can one study futures? Seeking answers to these questions places us in a better position to extend the notion of foresight to new areas and uses.

### What can we know about the future?

From the point of view of empirical science, we can know nothing whatsoever about the future. It does not exist, therefore it cannot be studied. Yet, as noted above, intuitively we know that something is wrong with this view. It is true that the future is not an object, nor can it be the subject of experimentation. But that does not mean it does not exist. There are many things that play a vital role in human life which cannot be studied, measured, or even detected, from an empirical perspective. How much is music worth? What does an ethical principle weigh? How long is the present? None of these questions make a lot of sense because to ask them in that form involves category errors. A category error arises when criteria for truth, reliability etc. are taken from one domain and read onto another. The domain that futures questions are situated in is different to that occupied by empirical science, so the criteria of the latter do not apply to the study of futures. We need to look elsewhere for such criteria. And fortunately they are close at hand.

In his work *The Art of Conjecture* Bertrand de Jouvenel suggested that studying futures was not, in fact, a question of knowledge and facts at all, but one of conjectures. As his title suggests he likened it to a work of art, in part because it was an expression and a creation of the human mind. So, in this view, the act of studying futures is a construction within the present that takes place in the richly-endowed environment of human minds. Later observers have debated this issue at great length. Some have attempted to increase the accuracy of forecasting. Others have stressed a range of other methods for coming to grips with the future. Scenarios can give a clear idea of different future alternatives. Delphic surveys tap expert opinion on developments in a particular area. Futures workshops encourage people to feel empowered to create aspects of desired futures. And so on. I do not want to undervalue these activities here. All have their place. But in this context I want to take a different tack.

James Ogilvy, among others, has argued that instead of attempting to emulate the physical sciences, futures study and research should consciously align with developments in the humanities. Further, that such developments actually lead toward, and imply, a need for futures work - which for him means normative (or value-laden) scenarios. I support this view because I too have found major correspondences between developments in linguistics, semiotics, critical theory, hermeneutics etc. and the futures enterprise. It is easy here to diverge into a discussion of these theories and their various roles. But this book is not the place

for such a discussion. Instead, I want to summarise the implications for futures study. This will show more clearly what kind of enterprise it is and in what sense the future can be said to be a domain of knowledge.

The dominant (mainly American) tradition of futures work has been largely empiricist in outlook. That is, it invested a lot of time analysing time-series data, performing elaborate calculations and producing forecasts, time-lines, decision trees and so on, to guide present day decision making. Some of this work was of very high quality. Yet, to my mind, it overlooked many deeper questions. Questions to do with language, meaning, fundamentally opposing interests and, crucially, the social construction of reality. In passing over such questions this dominant tradition seemed to me to miss the point. One cannot discuss 'world problems' without giving due weight to the traditions, epistemologies and communities of discourse which arguably gave rise to such concerns in the first place. This helps us to understand why so many early futures books, with their repetitious description of 'world problems' and 'solutions', were so unsatisfying. In many cases they overlooked the most significant 'layer' or domain, i.e. that which is concerned with constructing, negotiating and maintaining meanings.

The upshot is that the developments that Ogilvy, myself and others noted in other areas had immediate and practical use within the futures enterprise. In other words, instead of seeing futures work as something drastically different from other fields, it really has a great deal in common with them. In this view, the essence of futures study is not prediction, or even forecasting, but scholarship. The same general rules that apply to any non-quantitative field apply in futures: clear argument, fit with the evidence, clarity, fruitfulness, applicability etc. The futurist may appear distinctive as regards subject matter – i.e. the future – but not entirely so as regards methods and approaches. So, at one level, futures study is simply scholarship applied to futures problems. Where have we come from? Where are we now? Where do we want to go? How do we get there? Such questions overlap with those being asked within many other fields and areas. It is also the case, however, that futures study frequently involves a number of specifically futures-related methods and approaches (see Chapter 6). What emerges from this discussion is a view of futures study as being partly common with other fields and partly distinctive as regards subject matter and methods. This makes it easier to specify what kind of knowledge is being sought.

It is very clear to me that futures people are unwise to try to predict events, let alone particular scenarios or the future of a social system. Predictions have been widely misunderstood, but they have at least two key uses. First, they can be applied to technical or physical systems which can be measured and understood. Engineers must be able to predict the stress limits of a bridge or the range of an aircraft. The physical infrastructure surrounding us must be reliable, and hence it tends to be predictable. Interestingly enough, disasters occur when the assumptions embedded in technical predictions turn out to be wrong, or when the non-technical aspects of such systems are minimised or ignored (as at Chernobyl). Equally, planetary movements can be predicted for many years to come because the mechanics are clear. Second, predictions play a ubiquitous

and informal role in everyday life. They underlie all the many assumptions people make, as well as the intuitive exercise of foresight.

Social systems are, in general, too complex to be approached in this way. They are comprised of many qualitative elements which include: values, beliefs, ideologies, presuppositions and so on. Furthermore, successful predictions would appear to rule out the active role of human beings as agents and creators of history. If accurate prediction were routinely possible, there would be few or no choices and hence no point in futures study. What futures people can do is more modest, but useful. By looking carefully at the past and present, they can derive an informed overview of present-day structures and processes. Careful use of this material makes it possible to create broad-brush pictures, or accounts, of the near-term future. I want to stress that these are not detailed, or a complete, pictures. They are provisional, unproven, yet - and this is important - grounded in a clear set of understandings and propositions. It is clear why scholarship plays a vital role. Far from being a problematic enterprise that tests one's credulity, futures work of the kind described here actually calls for the very best work, the very highest standards (of clarity, insight, care etc.) the most careful and under-stated expression of any field of study.

The result is what I call a 'decision context'. It spans past, present and aspects of possible futures. The context is created much as the first three chapters of this book have been created: the look back, the look around, the look forward. In each case there is a mixture of analytic and interpretative elements. The latter become more prominent in the forward look, but there are also strong analytic elements there too. It follows that knowledge of the future is not empirical knowledge, but interpretative knowledge. What futures people do is to look back and to derive insights, data and knowledge about the past. They interpret that knowledge and use it to approach their understanding of the present. Within the present they look carefully at structures and processes. On the basis of these they look forward and create provisional knowledge about futures. They are helped with the study of processes in the present by utilising the work of many other people. Thus futurists tend to be habitual skimmers. Another way to put this is to say that they are always scanning the environment for significant signals, interpreting them and then using them to modify their work.

It therefore becomes clear in what sense we can have knowledge about futures. It is logically barred from us that we could ever have future facts about human and cultural systems. So we move to the next best option. That is a provisional, but fairly detailed and grounded picture, or view of the terrain ahead. This view is continually informed and up-dated as events occur and our interpretations of the world change. Such a view can never be totally reliable. Yet it tells us much that is useful in the present. Indeed, the thesis of this book is that a carefully constructed forward view may be the single most vital asset that we need in order to steer a sane course into the 21st Century.

## How can we study the future?

The notion of 'steering' into the future can be explained very easily though a simple analogy. We have all stood at a busy street corner waiting for the lights to change. At each side of the street a small crowd gathers. A few people can't wait. They glance both ways and dash across through the traffic, risking life and limb - and occasionally losing both. Most wait for the signal and two groups of pedestrians move toward each other across the road. The two groups pass through each other and get to the other side. How is this possible? How is it that there are not more frequent collisions? The answer is simple, yet profound. Each person is the owner of a superbly tuned brain/mind system. Each one automatically scans ahead before they move. Is it safe? Are there any hazards to watch out for? When they begin to walk the scanning continues in an active loop. It is a feedback process of scanning, detecting the movements of others, interpreting the information and then acting. Even young children can understand this process. They can watch two people walking toward each other along a street. They can see the way that each accommodates the others' path. They can see the result. This is a simple physical analogy of futures study. But there is one huge difference. We are, on the whole, running our complex, powerful, world-shaping societies without a broad understanding of this capacity, and without it being systematically utilised at the social level.

Institutions and processes of foresight remain largely marginal to the key decision-making and policy-making arenas of the world. Hence, unlike the pedestrians in every country, we are attempting to steer into the future blindly, without foresight, without scanning and, on the whole, without being aware of what is at stake. What can we do about this? The answer is simple but also elusive. A foresight capacity can be integrated into every major institution and government department. This is a practical possibility because we already know how to do it. The problem is that this knowledge is simply not being used. How could it be? Well, in a sense, I've already covered that above, so let me summarise here. As I've said, the future cannot be predicted. However:

- some things will continue (so we study continuities);
- some things will change (we monitor events and processes);
- from these materials pictures of future alternatives can be constructed (through scenarios, stories and novels);
- in the light of the above, choices and alternatives can be discussed.

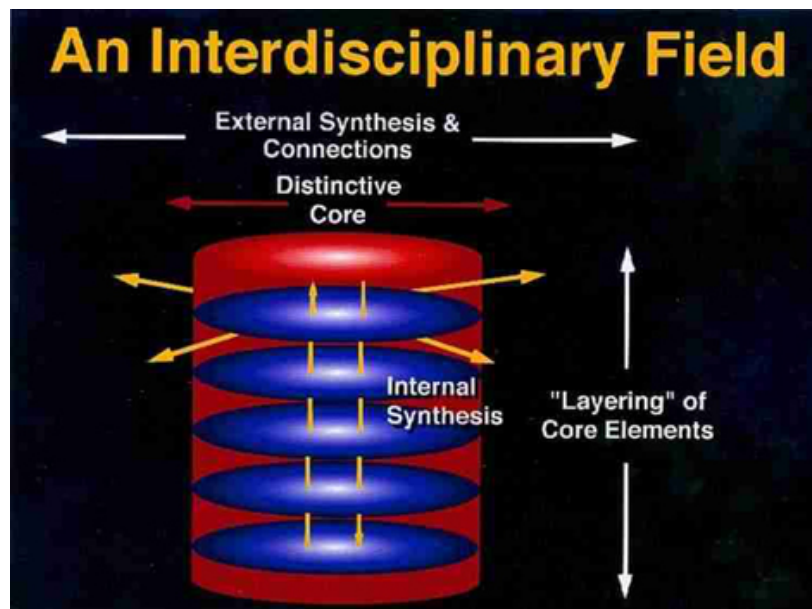
The whole point of studying futures is not to predict but to understand alternatives. This understanding provides a decision context from which emerge options and choices. It's another loop, very much like those used in everyday life: scan, interpret, choose, act. In one sense this is quite simple. But in another it is not. The reason why this is so was set out in chapters 1 and 2: we live in a culture that has lost sight of the human significance of the future and which often finds it more congenial to look back rather than to look forward. This has meant that futures study and research has been illegitimately set aside, particularly in many higher education environments. This is a big mistake because it has slowed the improvement and application of the field. Since universities act as the

gatekeepers to what is regarded as valid knowledge, their failure (with exceptions) to understand the significance of the field has meant that it has taken longer to permeate education at other levels. Hence it has taken longer to become widely established. Yet the futures field is a potent cultural resource. So another part of the answer about how we can study futures is to consider this field. What is it? How does it work? What resources does it offer?

### The futures field

Futures is an interdisciplinary field of enquiry. The fact that it is richly interconnected at the margins with many other enterprises and fields means that the boundaries cannot be clearly defined. However, the notion of a core takes on greater clarity. The model presented in Figure 3.1 is made up of several identifiable overlapping layers or elements. For analytic purposes it is convenient to separate them. In reality, however, they are interconnected and functionally inseparable. At least six layers can be distinguished, as outlined below.

**Figure 3.1** Futures studies as an interdisciplinary field



Source: R. Slaughter, The substantive knowledge base of futures studies, *Futures* 25 (3) 1993, 227-233.

### Language, concepts and metaphors

The language, concepts and metaphors of the futures field can be regarded as primary intellectual and symbolic resources. The very concepts of 'future' and 'futures' point toward one of the distinguishing criteria which provides the possessors of a human brain/mind system with a unique vantage point in time, i.e. one that is not restricted to the 'creature present' of other species. Concepts such as those of 'alternatives', 'options', 'agenda for the 21st century' and

'sustainability' provide part of the symbolic capacity for considering futures. They are building blocks for understanding which, when developed and explored, permit otherwise vague and provisional 'schema' about the future to take shape and form. Metaphors have particular applicability in futures because they organise and shape our conceptual structures in particular ways. Thus, for example, the future can be likened to a dice game where chance plays a big part. It can be like a river, in which case its course is pre-determined, but we can watch out for hazards. It may be like a roller coaster, suggesting a challenging, but tightly-constrained route. Or it may be like an ocean where we can strike out in any direction. Metaphors tend to invisibly shape discourse, but they can be used deliberately to further our conscious intentions.

### Theories, ideas and images

The symbolic building blocks outlined above can be assembled into structures of great power and insight. For example the idea of a post-industrial society an information age or a wise culture bring with them a whole series of possibilities for attempting to understand - and perhaps distinguish ways beyond - contemporary reality. The field as a whole generates a web of interconnected theories, ideas and images which serve to contradict the popular notion of the future as an 'empty space'. One of the basic propositions is that, far from being, in some sense, inert, unapproachable or deeply problematic, the future is a principle of present action and present consciousness. In this sense, it presents human beings with a wide range of options, alternatives and dilemmas. Some of these can be explored through theories about evolution, progress, chaos, stability, permanence and new forms of society. Some are best approached through imagery, either visual or literary.

Images of futures are both ubiquitous and yet under-studied. They are continuously negotiated at all levels of society. They are consciously deployed, for example, in the attempts to gain social support for major projects. But they may also be unconscious or obscured by ideological uses. Images of futures in the late 20th century tend to be either technophilic or dystopian. Both can be usefully explored, critiqued and compared with, e.g., those emerging from speculative fiction and art. As noted below, the futurist ignores these at his or her peril because, properly understood, they complement and extend the mostly rationalist operations of professional forecasters and the like.

### Literature and practitioners

The elements outlined above come into productive relationships in at least two key ways: in literature and in the people who use (and create) it. The futures field has a very rich literature. Familiarity with the latter provides multiple access points to the field. Obviously, this can be studied like any other. It can be critiqued, explored and extended. One could not be a futurist without some knowledge of at least part of it. One could not train students to become professionals in the field without it. So teaching and research are heavily indebted to the literature. There are at least two main branches. The core of the professional futures literature resides primarily in some 200 key books by

authors from around the world, but predominantly from Europe and North America. The journals are also significant. When people have enquired about the intellectual foundations of futures studies, I have sometimes suggested that they consider back issues of *Futures* or the decade-long run of the Australian based *21C* (1990-98). Few could consider such publications without coming away with a clear impression of substance and quality. While there were initially only a handful of core futures journals, they certainly helped to sustain the field during its earlier stage of development.

Another branch of futures literature is that of speculative writing, or science fiction (SF). This tends not to be produced by futurist writers *per se*, but the corpus of written (and pictured) SF is highly significant for the field. Whereas non-fictional futures work is based on rationality, logic, extrapolation and scholarship, SF draws on different sources - primarily imagination, game-playing (such as 'what if...?' games or alternative histories) and creativity. As such, and at its best, it fills out the medium, and the long-term, future with a wide range of possibilities. As a historian I.F. Clarke showed in detail how this speculative literature had affected social, cultural and technological processes over an extended period. It still remains an key resource for those looking beyond the near-term future.

Futures practitioners create, refine and use the formal knowledge which finds its way into non-fiction books about futures. Estimates of the numbers of people working full-time in futures vary, but there are enough to sustain a wide variety of networks and organisations (see below). If it is language, concepts and metaphors that provide the symbolic foundation of futures, it is the practitioners who supply the human, intellectual and applied energy. It is they who are energised by this powerful idea of 'future' and who use it to pursue numerous projects and possibilities in the ever-changing present. The outcomes of futures work affect social processes in countless ways, but most importantly through projects, enabling structures and social innovations (see below).

### Organisations and networks

At the time of writing there were a number of core organisations and networks in the futures field. Two were centrally placed. The US-based World Future Society (WFS) and the World Futures Studies Federation (WFSF). According to 1992 figures the latter had 531 individual members and 53 institutional ones. Both were distributed widely across the globe and thus the Federation was, and remains, a true international network. It has an activist, cultural, political tradition and a broadly facilitative outlook. The WFS, on the other hand, was perhaps an order of magnitude larger but was also more popular, conservative and corporatist in orientation. The quality of its publications varied somewhat (from the ever-useful *Future Survey* to the over-popular *Futurist*) and its status as a privately owned company affected its character in fairly obvious ways. Together, these two organisations catered for the broad interests of most practicing futurists through publications, projects and meetings. They both had or have local or national branches in a number of countries.

In addition, a number of more specialised organisations fell under the heading of 'institutions of foresight'. These included the Millennium Institute (Washington DC), the Club of Rome (Rome), Network on Responsibilities to Future Generations (Malta), the Secretariat for Futures Studies (Germany), the Institute for Social Inventions (London), the Robert Jungk Futures Library (Salzburg) and the Commission for the Future (Melbourne). In the view outlined here, such organisations – both then and now - cluster around the core and support a wide range of more focussed activities. Some are small, under-funded, and even marginal. Yet they have great actual or potential value. They tend to be pioneers, or 'leading-edge' organisations which act as seedbeds of innovation. While the wastage rate may be high, their collective impact is significant. It is therefore important to build links between such organisations and to assess their effectiveness. Finally, overlapping these near-core contexts is a range of futures-related organisations. These include NGOs, consultancies, government bodies and international groups often associated with the UNESCO or the OECD. Some overlap with social movements occurs here (see below).

### **Methodologies, tools and practices**

The core of applied futures work is methodology. Just as theories create new structures from underlying concepts etc., so methodologies increase the intellectual and applied power of ideas and theories. Basic methodologies include the following.

- Environmental scanning: systematically scanning the environment for precursors, events, signals of many kinds and interpreting their significance.
- Scenario analysis: outlining a set of internally-consistent futures to test hypotheses, explore alternatives, elucidate policy options and choices, prepare for contingencies etc.
- Cross-impact matrices: systematically impacting a data set upon itself or another set in order to study and assess a field of interactions.
- The Delphic survey method: tapping expert opinion in order to reach a consensus about future developments in a particular area.
- Forecasting and strategic management: using forecasts and other methods to inform and influence planning, decision-making and management.
- National and global modeling: the attempt to study the dynamics of complex systems by reducing them to their core components and manipulating them.
- Positive critique and analysis of discourse: probing beneath the surface of discourses to discover hidden agendas, presuppositions, ideological interests, thereby opening up new interpretative options and, by extension, different future possibilities.

Some elements of these are combined in useful sequences to create a more sustained and penetrating methodology. Such approaches arguably include Godet's 'Prospective', Coates' 'Issues Management' and the 'QUEST' methodology developed by Selwyn Enzer and Burt Nanus (see below). Methodologies of this



extended type are in wide use in some government and corporate contexts. Significantly, however, educators tend not only not to use them, but not even to know about them. Futures tools are simple versions of some of the methodologies or practical applications drawn from them. They include time-lines, futures wheels, space/time grids, simple technology assessment, strategies for responding to fears and so on. Such tools have been developed and applied over a half a century since the first school courses in futures were taught in, or around, 1966. While it is true that the evaluation of futures teaching in schools has always been patchy, it nevertheless remains a fact that much of this work has been pedagogically successful.

### Social movements and innovations

The extent to which the peace, women's and environmental movements can be seen as aspects of the early futures field is a matter of interpretation. I have always seen them as closely related in that they have not only attempted to discuss and theorise about future societies, they have also acted to bring about change. Hence they align with one of the core purposes of futures work. While some may doubt the connection I believe it is a substantial one. For example, the peace movement brought popular pressure to bear on a number of governments during the Cold War and arguably helped to bring it to an end. It also helped to undermine the legitimacy of the view that nuclear weapons could or should be deployed for purposes of 'defence'. The women's movement focussed attention on the ways that women are disadvantaged, not least through gendered language, patriarchal institutions and inappropriate socio-economic values. The environmental movement has long highlighted the destruction of the planet's life-support systems and, while 'Green' political parties have still not achieved more than minority status, their impacts upon political agendas internationally have been substantial.

Similarly, the animal liberation movement created a minor revolution in the ways animals are treated on farms and used for experimentation. Linked with this is the continuing campaign of vegetarians and others to reduce the consumption of meat across the board. A less well-known social movement focussing upon inter-generational equity and the rights of future generations had some scattered impact but rather less than its members had hoped. Finally, we should not forget the many NGOs, such as Amnesty International, Save the Children and Community Aid Abroad. When taken together, the total spectrum of social movements and NGOs can be seen as a significant and progressive force for positive change in the world. Generally speaking, it is they who pick up issues and generate social support for dealing with them. It is only much later that governments get the message, so to speak, and may lend them partial support.

Another connection between futures and social innovations is provided by the example of futurist Robert Jungk. He played a part in setting up the London-based Institute for Social Inventions which provided a seed-bed and a context for a wide range of positive social responses to change. This kind of 'output' is in part a consequence of the factors noted above in which concepts, ideas, theories, people and organisations act in concert to produce intended higher-order

effects. Yet a note of caution is in order: this account does not presume that all intended effects are achieved, or unintended ones avoided. On the other hand, social innovations are ubiquitous and easy to study. The process of creating them can be taught and learned. When young people ask the inevitable question 'what can I do?' one high-quality answer is to reply: 'work toward a social innovation' (see Chapter 8).

So what emerges from this overview? I want to re-emphasise that the futures field can be regarded as an identifiable entity when the factors described above are seen as a series of overlays that are richly connected vertically to each other and laterally to other related fields. The undeniable presence of diffuse margins, overlapping traditions, divergent paradigms and so forth do not in any way detract from this view. As Ogilvy and other have observed, there are few or no foundations in our uncertain, post-modern world, only a series of interconnected networks. So the futures field is no different to many others in this respect. From the above it seems clear that:

- futures work is essential;
- it is no more difficult or problematic than other fields;
- it has become a structural necessity in many areas; and
- if handled well it will be taken up much more widely.

This account of the field cannot but be incomplete and is certainly capable of further development. The knowledge core, or base, is bound to evolve. Yet, as it stands, it provides a rich matrix for exploring some of the central questions of this, or any other, age. What has gone wrong? How can things be improved? Where do we want to go as a society, and as a species? How can we get there? Replete as these questions are with unclear agendas and problematic concepts and assumptions, they nevertheless still remain central. A culture that is not interested even in asking such questions can no longer be considered viable.

## **Outlook for the next twenty years**

So what can we know about the near-term future? There are at least two ways of answering this question. One is to assess the significance of empirical trends occurring 'out there' in the world. The other is to examine underlying ideas, values and beliefs 'in here' which are either growing or declining. Both are useful. Hence this chapter considers the former, while the latter is taken up in Chapter 5.

To begin with we can set aside most of the so-called 'Megatrends' – a term coined by John Naisbitt in the early 1980s and revisited in 1990. It purported to lay out a series of 'major trends' that were ostensibly shaping the world. Yet careful analysis revealed that barely a third of the much-touted 'Megatrends' actually stood up to examination. What counted as one depended upon a lot of things including: culture of origin, the interests (and capacity) of the observer, the purposes of the work, the level of aggregation and the underlying framework of analysis. What this suggested, in part, was that the idea of a single, monolithic overview of global change simply lacked credibility. Such a God-like perspective

does not exist. The next best thing would be a view assembled from multiple perspectives, but this is not what Naisbitt produced. In fact several features characterised both 'Megatrends' books. First, they were both presented as though they were objective and 'value-free'. Second, no theoretical or methodological justification was given for the approach or the content of the books. Third, they avoided dealing with the global problematique entirely. Fourth, they clearly embodied a strong corporate, right-wing, free-enterprise bias. Fifth, they related mainly to the USA. Sixth, their usefulness appeared mostly limited to conventional business and marketing. Yet many overlooked these defects and took the books as authoritative statements about the world - which was unfortunate. A more productive response would have been to not rely on such naive, opportunistic and generalised material but, rather, for others to use and improve upon the underlying ideas. For example, organisations could obviously benefit from: setting up their own environmental scanning system, developing their own interpretative criteria, creating their own models and deriving their own views of the dynamics of change.

Standing behind such over-hyped products of 'pop futurism' is a much more substantial literature dealing with global change. One early example is a long running series edited by Lester Brown (and others) called *Vital Signs* and subtitled *The Trends That Are Shaping Our Future*. Among other things these books offered useful summaries of topics such as: food, agricultural resources, energy, economics, social trends, military issues and the environment. They provided a wealth of detail about the then-current status of such areas and often concluded that the world was facing a genuine crisis in many of them. The point was, and remains, that societies tend to be more alert to earlier trends, than those shaping the world at any particular time. Indeed, 'governing by hindsight' still remains more usual than foresight. Such criticisms could not be levelled at James Dator whose work on the 'Tsunamis' (or tidal waves) of change was as far-sighted as anyone could wish for. Dator looked in some depth at five broad change processes under the headings of : demongraphics, economics, environment, technology and globalisation. He saw a range of issues in each area. For example, Western (white) civilisation becoming less dominant as population growth races ahead elsewhere. Economic problems worsening as old-style 'industrial' outlooks are read upon a very different context in which, for example, fewer people will actually be needed for production purposes. The environment continuing to deteriorate for similar reasons, and technology 'changing the rules' faster than anyone was or is prepared for. Finally, he expected globalisation to hasten the death of the nation state and aid the resurgence of cultures, including artificial machine cultures.

Perhaps one of the most useful overviews from the mid-1990s was that from the World Future Society's *World 2000* project led by William Halal. It drew on a wide range of individuals and sources to provide an account of driving forces for global change and critical issues arising. It also recommended several broad strategies that are summarised in Figure 3.2. While these tend to focus on fairly obvious, largely external phenomena, there are some significant points. For example, key cultural concerns are broached (e.g. human rights), major organisational developments are signalled (e.g. managing complexity) and

several shifts are recommended (e.g. in economics, society's relationship to the environment, de-centralisation and collaborative working relationships). While far from methodologically complete, such an overview certainly provided a useful starting point.

**Figure 3.2** World 2000: driving forces and critical issues

**Driving forces**

1. A stable population of 10-14 billion people.
2. Industrial output increased by a factor of 5-10.
3. Information technology will permit the 'wiring of the globe'.
4. A continuation of the 'high-tech' revolution (DNA mapping, robotics, new materials etc).
5. Closer integration of the globe into a single community.
6. Diversity and complexity through ethnic regions, subcultures etc.
7. A universal standard of freedom and human rights.
8. Limited crime, terrorism, war and disease.
9. A resurgence of transcendent values.

**Critical issues**

1. Making the transition from separate nation states to a global order.
2. Resolving the conflict between economic growth and sustainability.
3. Reconciling economic interests through a new economic paradigm.
4. Understanding and managing complexity at the institutional level.
5. Alleviating the disparities between north and south.

Source: Halal, W. World 2000: An international planning dialogue to help shape the new global system, *Futures* 25 (1) 1993, 5-21.

What emerged from such views of global trends was a world in genuine crisis. It was already a world that had already exceeded certain limits and looked set to exceed others. In other words, a world steadily moving toward what the Meadows team (authors of *The Limits to Growth*) called an 'overshoot and collapse' mode. To modify this outlook would certainly require the unprecedented exercise of both foresight and wisdom, the twin themes of this book. In order to show how urgently agendas needed to be re-thought I attempted to summarise six reasons why I felt that the human prospect would darken before it improved. Figure 3.3 therefore summarised six 'negatrends' or reasons why things would get harder before they get easier. They help to illustrate why we need to 'look beneath the surface' of cultures in transition in order to explore the cultural 'software' hidden deep within the Western worldview itself.

**Figure 3.3** Six 'negatrends' or why things will get harder before they get easier

1. It takes time to identify deficiencies in the Western industrial world view and to subsequently correct them.
2. The continuing unsatisfactory operation of the global economy.
3. Failure to resolve the global problematique.
4. Continuing technical innovation creates new dilemmas superimposed on previous ones.
5. The ethical basis of late industrial life remains inadequate and unsustainable.
6. There is inadequate investment in foresight.

The worldview problem has often been overlooked by mainstream futurists. Yet it powerfully affects the ways we see the world (often though unregarded assumptions and taken-for-granted commitments). Yet there is no rule book for reconstituting a culture. One can't discard a particular 'structure of consciousness' overnight. Moreover, as noted, personal and institutional learning lags slow down the process of cultural innovation. Formal education is very much part of the problem, in part because it remains immersed in the past and has not yet taken up the many concepts, tools and techniques for teaching and learning about futures. But many other institutions are also 'behind the times' and these too contribute to social rigidity. Gross inequalitities between nations persist and are worsening in some cases. They appear to be systemic features of the global system. Market economies appear to lack any intrinsic interest in the future, and market signals operate retrospectively. Classical economics excludes the wider world and regards ecological impacts as mere 'externalities'. Global problems of poverty, environmental deterioration, pollution and the loss of genetic diversity also continue to grow. Most people feel that these are too remote to deal with and are therefore beyond their world of reference. Governments have short-term, limited agendas, linked to the electoral cycle. So, on the whole, they ignore the global problematique. The time-frames of governance and those that apply to global atmospheric and other environmental systems are severely misaligned.

Virtual reality, the human genome project, nanotechnology and so called 'artificial intelligence' all raise as many new problems as they promise to solve. Notions of 'control' in this context become problematic. Technology is often seen as providing new solutions, but this widespread belief is unhelpful. Technical innovations are over-valued, while questions of language, meaning and conflicting interests are overlooked. On the whole, Western societies have yet to decisively wean themselves away from anodyne, machine-led views of futures that are clearly not viable in the longer term. The still-powerful (but inadequate) industrial-era ethics of pragmatism, utilitarianism, competitive individualism and the marketing imperative have not, and will not, provide a sound basis for individual or social decision-making. There's a spiritual vacuum at the heart of industrialised culture which makes it very difficult for people to resolve the perennial concerns of human existence. A series of substitute satisfactions are readily available, but they merely shove problems out of sight. Yet at a deeper level people are not fooled: they know that a confidence trick is being played.

This helps to explain the continuous outpouring of apocalyptic imagery and the largely unnecessary view of the future as a dark and forbidding place. This very dilemma provides the cultural and historical grounds for critical and creative futures work, but too few are working in these modes.

Finally, as noted, foresight needs to be widely deployed at the social and organisational levels. But in habitually short-termist, past-oriented cultures there is little interest in doing so. Hence the savings of successful foresight are denied and the risks of 'overshoot and collapse' beyond critical limits continues to grow. Of all these factors, the key is foresight. If we invested enough time and effort in systematically thinking ahead, all these problems would be that much easier to deal with. So the following chapter looks at how foresight is already understood and used.