Critical Futures Study and Worldview Design

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Introduction: Probing beneath the surface

Much of the early futures literature considered 'world problems' and proffered a variety of solutions. But by the late 1980s two important shifts of perception were under way. First, it is increasingly clear that what have been called world problems are actually problems which have been largely created by affluent Western countries and exported to the rest of the world. So it becomes increasingly inadvisable for Western observers sitting safely at home to try to tell others how to solve them. Instead of projecting various concerns upon the third world, the more challenging task is to put one's own house in order. That is, to consider what aspects of the Western worldview permitted this assault upon the rest of the world.

This deeper concern will take longer to achieve, but it is very important. It hinges on the fact that *very many 'problems' seem to have no solution at the level upon which they are first experienced or described*. This has been frequently overlooked in those branches of futures writing which are over-reliant upon empiricist assumptions and methods (measuring, calculating, instrumental reasoning). In this context the *partiality* of cultural traditions, of disciplinary paradigms and ways of knowing had been largely overlooked. Similarly, the role of language in actively shaping perception and mediating views of the world was neither well understood or allowed for. Hence 'problems' tended to be described in superficial, culturally-specific and taken-for-granted ways. This led to the familiar 'litany' of global concerns and a number of repetitious books, many of which ended up saying much the same thing.

From the viewpoint of the 1990s it is clear that solutions do not necessarily exist for all the problems that have been created during two centuries of industrialism. Some situations are unsolvable. Others can only be resolved by approaching them differently. Take two examples.

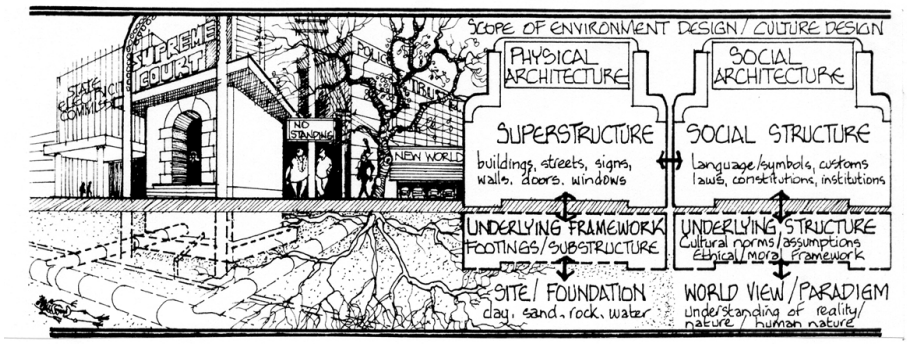
Many children and young people are deeply affronted by the destruction of wildlife and the natural environment. They rightly perceive threats to their own well-being and respond with fear, frustration or anger. A common response is to feel impotent: what can they do beyond protest or participation in half-hearted, tokenistic 'clean-up operations?' The second example is that of a school principal I met recently. His refrigerator broke down because a single component failed. He tried to replace the component, but found there were none available. Finally, and against his will, he was forced to purchase a new machine - despite the fact that the old one was repairable. In all such cases people feel outsmarted, helpless. The reason is that we are all confronted by much more than physical problems: more than simple cases of pollution or faulty kitchen appliances.

What these examples point towards are *the embedded systems which lie behind everyday experience*. In one dimension these spread through space and time and, in another, they extend throughout the socio-cultural matrix in the form of ideologies (planned obsolescence) and cultural assumptions (we are separate from nature and

can therefore abuse it). No individual could be expected to unravel these relationships on their own. So it's important to establish a method for dealing with such questions.

One place to start is with Figure 1. It draws a parallel between physical architecture and social architecture, thereby providing a central metaphor for critical futures work. While the former is built upon a physical substructure and foundation, the latter is founded upon a structure of norms, assumptions etc. and also upon a worldview or paradigm. The worldview contains a number of very important assumptions: about the nature of reality, of nature, human nature, time, meaning, purpose and so on. The basic suggestion here is that problems with the environment or with refrigerators ultimately have their origin (and their possible resolutions) at one or more of these deeper levels.

Figure 1: Architectural metaphor: the relationship between surface structures and underlying foundations



Source: Richard Mochelle, Architect, Melbourne

Figure 2: Levels of futures work

1. POP FUTURISM: takes existing social relations as given; ideologically naive; provides unconscious support for status quo; futures constructed externally via. science and technology. E.G. *Future Shock* (Toffler 1975).

2. PROBLEM-FOCUSED FUTURES STUDY: identifies problems and seeks to explore solutions at a superficial, taken-for-granted level. E.G. *The Limits to Growth* (Meadows 1972).

3. CRITICAL FUTURES STUDY: comparative analysis of assumptions, pre-suppositions, paradigms; actively considers the influence of different cultural orientations and traditions of enquiry. E.G. *The Politics of the Solar Age* (Henderson 1988).

4. EPISTEMOLOGICAL FUTURES STUDY: locates and

problematises sources of "problems" in worldviews and ways of knowing; sees "solutions" as arising from deep-seated and unpredictable shifts at this level. E.G. *The Reenchantment of the World* (Berman 1981) and *Eye to Eye: The Quest for the New Paradigm* (Wilber 1990).

It follows from the above that *futures work which misses the shaping significance of socio-cultural foundations will increasingly be seen as naive and superficial.* This is so because it misses the richest opportunities for problem-solving, reconceptualisation and cultural renewal. The latter cannot be identified merely with changes in surface structures. We'll have to deal in depth with the problematics of cultures in stress and in transition. So it's likely that distinct levels will be recognised in futures work. Four possibilities are given in Figure 2. *Pop futurism* tends to be technophilic, conservative and diversionary. It thrives in mass market tv programs and in the popular press. It can be marketed. *Problem-focused futures study* is often earnest and well-meaning, but its prescriptions may lack credibility for the reasons given above. *Critical futures study* is still fairly uncommon, but some of the best futures work available draws upon critical sources and traditions of enquiry. Finally, *Epistemological futures study* provides depth needed for worldview analysis and re-design..

As one moves from level 1 to 4 an increasingly rich array of options present themselves. At the most superficial level one remains imprisoned by unregarded 'givens' and unstated assumptions. The deeper one goes, the more demanding the work. But, equally, the greater scope exists to look freshly upon assumptions and meanings which have come to seem natural and inevitable, but in fact are not so. At the epistemological level futures work merges imperceptibly into the kind of fundamental re-thinking which is clearly philosophical in character and orientation.

These are welcome developments. For it is here in the foundations of culture that all 'world problems' have their origins. Equally, solutions will emerge not from ill-founded analysis or superficial tinkering. Neither will they grow from the media hype of pop futurism. For solutions to be effective they will involve deep-seated shifts of perception, value and understanding at the deeper levels.

Critical futures study

The term critical is sometimes misunderstood. It does not simply mean 'to criticise', nor does it signify negative or derivative work. It is not threatening and should not be construed as such. Rather, *it signifies a range of methods and tools through which we may 'probe beneath the surface' in order to realise the full potential of futures work.* Critical futures study recognises the *partiality* of traditions, cognitive frameworks and ways of knowing. It's therefore possible to *problematise* aspects of the existing social and economic order and to explore some of their contradictions. It is important to understand why this is a constructive enterprise.

An unproblematic status quo is one which is accepted without question; one which embodies certain quasi-transcendental goals which are to be progressively realised now and in the future. Such goals could include 'health, wealth and prosperity for all

humankind.' Others might be 'racial equality', 'steady growth of GNP' and 'peaceful international relations.' These all sound wonderful. But, given the real substantive character of ideologies, assumptions, systems of exploitation, repression and destruction now in place, they are simply not realisable. Like the advertisements for women's fashions or impossibly perfect holidays they have little substance. Yet these glossy fantasies mystify whole populations.

The fact is that regardless of its very many impressive achievements, late industrial culture is the most rapacious, self-centered and humanly destructive system yet seen upon the earth. It presides over numerous wars, the repressive exploitation of many Third World populations (and their underprivileged equivalents in Western countries) and the implacable destruction of the world's life-support systems. Given this context, conventional sanguine views of the future have a flat, unconvincing and, indeed, blatantly spurious quality. *The standard Western worldview, far from leading to universal peace and prosperity, actually leads directly toward the abyss*. It holds out no possibility whatsoever of sustainable human futures. Hence the importance of looking in depth at this culture and asking some penetrating questions. This is exactly what critical futures study attempts to do. Calling the bluff of anodyne views of futures helps us to isolate aspects of our present culture and way of life which urgently require critical attention. No one should doubt that this is a responsible and constructive task.

If it were not possible to interrogate the received wisdom of industrialised cultures, then we would most certainly be set on an irreversible path toward global catastrophe. If we were not able to understand our situation and act with informed foresight to avert the worst dangers, we would be committed to social learning by the crudest of experiences. We would have to experience catastrophe in order to prevent it. This is clearly unacceptable. The price of crisis learning is becoming too great.

Critical futures study therefore aligns with other critical/interpretive initiatives to explore the possibility of productive discourse about the character, assumptions and likely directions embedded within the dominant culture. This is an important first step. But there is also another. By carefully questioning what is too often taken for granted (such as continuous economic growth, or pollution as a mere 'externality') we can begin to distinguish new personal and social options. *This 'unfreezing' of the status quo provides us with new (or renewed) sources of freedom.* It does so by permitting a much wider variety of alternatives to be imagined and explored than are conceivable from within a dominant, catastrophe-prone paradigm.

Distinguishing features of a critical futures approach include the following.

- Discourse is not neutral. It is grounded in particular traditions and speech communities which cannot, by definition, be 'objective.' Intersubjectivity is only partly 'rational.'
- It's important to adopt a reflexive posture; that is, one in which the observer does not simply observe (speak, act etc.) but is aware of the active, shaping character of these processes.
- A presumption is made in favour of 'the human emancipatory interest;' or, simply, the fundamental interest of all persons in freedom, self-constitution and unconstrained conditions of life.

- It is suggested that ‘progress’ is no longer a term which can be used without irony. It has much less to do with tools, techniques and the external conditions of life than with (a) understanding the breakdown of a cultural synthesis at the epistomological level and (b) recovering the ability to discern a basis for qualitatively different futures.
- Technologies are not regarded merely as neutral tools but as cultural processes embodying specific ideological and social interests. The most notable features of technologies are often invisible and intangible (which is why they are missed by empiricist approaches).
- Stories are regarded as powerful explanatory devices. They are not ‘mere fiction’ because they model social reality in novel and useful ways. They can therefore be used to explore some aspects of human futures in ways not accessible to reason, analysis or the techniques of futures research (forecasting etc.).
- There’s an explicit focus on the negotiation of meanings (such as work, leisure, defence, health etc.). This gives access to some of the most important shaping processes involved in social and cultural change.

Sources from which these ideas have emerged include the following.

- The interpretive perspective: critical practice, hermeneutics, the analysis of discourse, semiotics.
- The sociology of science and technology: science as a social product, technology as cultural text, etc.
- The critical theory of society: cognitive interests, Habermas’s theory of communicative action etc.
- Speculative writing: stories which comment with awareness on past, present and futures.
- Environmental scanning and strategic analysis: techniques of futures research applied in organisations.

The careful use of these cultural and symbolic resources provides futures study and research with powerful new metatheoretical tools. Moreover, when critical and epistemological futures studies are linked to processes of futures visioning and design, they hold out the possibility of reclaiming a measure of ‘steering capacity’ for society as a whole.

The metaproblem

The use of a critical futures approach means that we can stop talking superficially about ‘world problems’ as if they were somehow separate from the systems of value and meaning which created them in the first place. We can, instead, focus on the underlying breakdowns of meaning which have occurred (and are occurring) within all cultures affected by industrialised epistemologies and assumptions. Once again, focusing on ‘the breakdown’ could be misconstrued if it were taken to be merely an attack on existing structures. However, this is not the case. It is a necessary stage of diagnosis. *Knowing what has gone wrong constitutes an important step in putting things right*. It is a ground-clearing exercise.

We're here concerned with constitutive understandings which have shaped our views of the world at a very basic and powerful level; understandings which have been expressed through (and embodied in) our social, economic and technical systems. As such they have taken tangible form and led to many consequences. Some of the latter are already evident in our past and present. Others have already been displaced into the future and represent challenges we have created, but which future generations will have to grapple with. An example may be useful here.

The SDI (or Strategic Defence Initiative) was an attempt by the Reagan administration to purchase some degree of 'protection' against the possibility of nuclear attack by the USSR. It involved the expenditure of huge sums of money for the construction of a nuclear 'shield.' This shield involved placing military lasars in orbit programmed to destroy Russian missiles before re-entry into the earth's atmosphere. However, despite some very compelling graphics, the system is technically unworkable. Were this otherwise then a whole new era in the militarization of space would now be underway. But for what purpose? The fact is that there is not now, nor has there ever been, a valid reason for beginning such a project. The mere deployment and testing the system would have exacerbated the already serious problem of 'space junk', thereby further threatening all future attempts at space exploration. (In 1986 there were some 7,000 large objects in known orbits and over 40,000 smaller ones.)

From a non-critical viewpoint the SDI could be viewed as a prudent extension of US defence policy. The 'shield' metaphor suggests something benign and protective. But the reality was quite different. Resources which spring from human ingenuity and the biological productivity of the earth were diverted to wholly negative and destructive ends. In a more critical view, these resources were immorally misused and wasted by the imperatives of institutionalised paranoia. From the point of view of the nuclear state it appears more "rational" to turn earth and sky into one huge battlefield than to confront the human origins of its expansionism and fear. Viable futures simply cannot be derived from these impulses and assumptions.This example could be multiplied indefinitely. It shows why a critical futures approach is essential. Without something along these lines it is all too easy to accept conventional assumptions which later turn out to be disastrous. Since we have two centuries of damage to consider, we can draw on that historical experience to identify several aspects of the metaproblem.

1. The Dominance of instrumental rationality (IR)

IR is a powerful cognitive system which matches means to assumed, or pre-given ends. It permits the construction of devices and machines of enormous power: computers, rockets, body-scanners, automobiles and toasters. The physical infrastructure of our civilisation is dependent upon it. So the point is not to eliminate IR. We could no longer survive without it.

The difficulty is that the way of viewing the world which IR encourages contains certain defects and is wholly inadequate for other non-instrumental purposes. One defect is that it contains no notion of limits. Another is that it provides no rationale for seeing the world as other than a machine, or as a set of inert resources. Since IR is a system which only addresses the physical 'layer' of the world, it cannot supply useful insights about ethics, meanings or purposes. Hence, unless it is interpreted

according to some other (higher) principle, its applications can become dangerously over-extended. Many would now argue that that is exactly what has happened in Western culture. Taken alone, IR is a recipe for disaster.

2. Reductionism and loss of the transcendent

Reductionism is the tendency to take something with a diverse range of qualities and to disregard many of them. The standard ploy of reductionism is to say that if something cannot be measured, it does not exist. Economics has fallen into just this trap such that, for example, housework is literally regarded as being without value. Similarly, markets operate wholly on the basis of past experience. With the exception of the 'futures market' (a speculative economic sideshow) markets have no methods by which to exercise prudence or foresight. They are crude mechanisms which use signals derived from past and present to govern their operations. As such they effectively make the future vanish. They reduce temporality to a narrow band of self-interest in the here-and-now. This is ethical and ontological nonsense.

Reductionism is endemic in industrialised cultures. It says of phenomena 'this is only....' and then picks out some convenient characteristic. Hence, ecosystems basically provide 'services.' People are simply 'consumers' or 'human resources.' Religion is either useless or mere 'therapy.' The possibility that there could be spiritual or transcendent realities of a completely different order is simply overlooked. So far as IR is concerned spirituality and futures both have less reality than ghosts.

3. Science and technology for irrational ends

It was Lewis Mumford who once said of modern weapons systems that the means were rational, but the ends were entirely mad. He saw, as many others have, that once certain technical means become powerful enough, they become ends in their own right. This can be seen with modern information systems which are expanding very rapidly not out of some clearly defined need or purpose but from of the compulsive dynamism associated with competing capitalist economies and enterprises.

The present period has even been called 'the information age.' But it is by no means certain that this label fits. Information as such is not valuable. Nor is it to be confused with knowledge or wisdom. The dynamics of expanding information systems are such as to lead toward ends which are largely unpredictable. In this process, means and ends tend to be confused. Similar criticisms can be made of nanotechnology. Here the threat of competition is used to fuel technical developments. But again, the ends are problematic. If successful, nanotechnology could well undermine the physical integrity of our world. I conclude that such an end is indeed irrational.

The key point is this: *when powerful technologies are linked with inadequate worldviews or with primitive human impulses they become irredeemably subversive.* If science and technology are to help us move toward humanly viable futures they will need to be reconstructed on a different, non-instrumental basis. Hence, if there is a way out of the present cultural trap it will clearly not be via. science and technology as they are presently constituted. Perhaps the only lasting 'solutions' will be via. the

re-establishment of truly human ends which are expressions of the highest human motives and capacities.

4. The de-sacralisation of nature

In most traditional cultures there are strong injunctions to protect nature from overexploitation. Such injunctions draw power from belief systems which endow the environment, and all that lives within it, with specific meanings. Many of these entities are sacred. That is, they occupy a higher ontological level than that of mere use. They are not simply 'resources.' They may be worshipped, consulted, propitiated. They become sources of inspiration, metaphors, art - the substance of lived experience.

But Western cultures developed according to the very different dynamic provided by Bacon and Descartes. One discovered the scientific method (by which nature could be manipulated in order to yield up her secrets); the other asserted the fatal duality between persons and the world. Newton completed the pattern by characterising the world as a machine (even though he himself did not fully believe it). The result was a culture which felt itself to be separate from nature and also 'above' it. In this view, the Christian injunction to 'subdue the earth' could be completed. But at a heavy price. For the earlier cultures which animated nature (and made it in some sense holy, or at least possessing *intrinsic* value) knew what they were doing. They retained access to a much richer symbolic world while also protecting their own long-term well-being.

The de-sacralisation of nature meant that all the world and its creatures were no longer special, no longer protected. Whales could be rendered down into oil and corset stays, whole forests could be burned or wood-chipped, the atmosphere just became a sink for all the noxious products of human machine culture. The results are now obvious.

5. Having substituted for being

Depending upon how one views the world, commerce can be seen as a source of wealth or as a prolific source of misinformation about many things. Or both. Like instrumental rationality, commerce is not inherently 'bad.' But its overextension is certainly proving bad for the earth. The mercantile influence in modern cultures has become very powerful and, in order to sell goods, the advertising industry uses all the tricks and manipulations available to it.

This would not be a serious problem if there were countervailing forces to keep it in check. But there is plentiful evidence that commercial interests have overstepped the mark. They have marketed many items which were better not used, or at least, used in moderation, (cigarettes, alcohol, fast cars). They have debased human sexual responses and promoted many forms of mystification and reality-avoidance. They have inscribed false, non-viable values upon the consciousness of entire populations. They support surrogate worlds (through mass entertainment) which 'lock up' the human perceptual system in closed, unproductive loops, leading ever further from an active engagement with the world. They have promulgated the falsehood that possessions are superior to human qualities.

By contrast, a state of 'being' one rests secure in the richness of one's human and wider cultural inheritance. It is a poised and dignified state, not under threat. One lacks nothing essential because *all the essentials are already given*: life, consciousness, awareness. There is no inner scarcity. On the other hand, the 'having' mode is permanently at risk. Needs multiply and become demands. The being mode is fundamentally self-sufficient, but the having mode begs to be supplied with an endless series of substitute satisfactions. It's all to the good that these are substitutes, for this means that nothing will ever really satisfy. The state of having requires an endless stream of merchandise which suits the priorities of those who supply the goods.

But there's a catch. This only works in a world which can sustain escalating demands. Ours cannot. Yet five billion people are now exposed to this diminished ethic. It's a huge confidence trick. We presently use about 40% of the biomass of the earth. When our numbers double will we need 80%? What of the bald eagle then, or the platypus? What kind of world does the having mode lead to? *It is a desperate and diminished one. This is not a viable path into the future.* In order to come to grips with the metaproblem we will need to change some of the sub-systems of the prevailing social/epistemological order. To do so will mean intervening in processes of cultural editing and consciously drawing upon other, hitherto-marginalised, starting points, values and assumptions.

Cultural editing

The same concerns can be considered from a complementary point of view. That is, from an understanding of some of the ways that a culture conditions the view of those who developed within it. Back in 1935 Ruth Benedict published a book called *Patterns of Culture* which stated that 'no man looks at the world through pristine eyes. He sees it edited by a definite set of customs and institutions and ways of knowing.'

This is an important point, for we have good reason to believe that the cultural editing which has taken place via. the industrial worldview has had a number of powerful consequences. We 've come to view the world in certain ways and these dictate how we utilise it. But many of these ways are not viable in the longer term. *If we want to create a sustainable culture we will have to find ways to "re-program" some our cultural editing processes*.

Current dilemmas suggest that we need to re-construct our worldview - literally change the ways we construe the world. Yet this is an historically unprecedented task. We simply don't know enough about how these processes work. (The drawback of the 're-programming' metaphor lies in precisely this kind of difference, i.e. between two different orders of phenomena.) Nevertheless, we can clarify some of the components identified above and look for others which may qualify to be included in a renewed worldview. For example,

- a sense of temporal process embracing past, present and future;
- a more conscious and strategic use of time-frames, matching them appropriately to different activities;

- a commitment to the long-term implementation of foresight;
- a global and systemic view;
- recognition of the rights of future generations;
- a recovery of participating consciousness;
- a revaluing of reflexive awareness; and,
- a commitment to higher-order human development.

It's not clear to what extent a culture can consciously change its own editing processes. However, looking back at successful examples of systemic change (such as have been to some extent achieved by the environmental and women's movements), there is sufficient evidence to justify optimism. *Change is possible when the time is right and the ideas involved are compelling enough to win wide support.* This does not mean that all problems can be solved. Many will only be resolved when their deeper dimensions are more fully understood and more widely appreciated. Yet even now there are numerous ways ahead.

The kind of cultural editing which has occurred within Western cultures has either ignored or misrepresented the higher levels of a qualitatively differentiated world. It has made them appear mysterious or esoteric, the realm of gurus, mystics or charlatans. In fact they are simply part of a wider pattern. Just as a clock is more than the sum of its parts and a living organ is more than the sum of its cells, so the more highly evolved manifestations of human consciousness reach transcendent levels. Accounts of these processes suggest very strongly that higher levels of awareness tend to be inclusive rather than exclusive. They reach out to broader spans of space and time and have therefore become essential in healing the planet, creating peace and moving toward new stages of civilised life .

Transcendent knowing occupies the highest level not because it is 'better' but because it is more highly differentiated. It does not involve a rejection of empiricism or rationality but rather an understanding of *where their appropriateness lies,* of where they fit. In losing this scheme of vertical differentiation, our culture has cut itself off from some of the most potent sources of value and meaning. One result is that problems (of power, ownership and conflicting interests) genuinely appear iresolvable. They *are* irresolvable in these terms. Yet lasting solutions can rapidly appear in a vertical movement which transcends and resolves lower-level contradictions.

There is reason to believe that human consciousness is emergent from the pre-personal ground of undifferentiated oneness with nature. The present level of advanced mind is an enormous achievement. But the whole thrust of human development goes beyond this toward states of clarity and integration which have been foreshadowed by great spritual leaders.The work of transpersonal psychologists, as well as the accumulated wisdom sometimes known as the Perennial Philosophy, also confirm that new worlds of significance lie beyond the mundane. Schumacher pointed out the necessity of there being within the knower something which was adequate to that which is to be known. He called this 'adequateo'. It has become a collective necessity if we are to move beyond the industrial era.

It cannot be overemphasised that *insight depends upon the richness of the structures that enable it*. That is partly why a critical futures method is essential.

Re-negotiating meanings

The notion that words simply mean what they say and that texts embody a coherent experience or account of the world is a deeply held and comforting one. It is comforting because it preserves a simple view of language and meaning which naturalizes a commonsense, taken-for-granted, view of the world. Yet, like the boundaries they enshrine, the comforts of realism are illusory. They obscure the ideological character and uses of language and leave individuals open to mystification and exploitation. There is insufficient latitude here to permit the full flowering of human communicative ability and expressiveness. In order even to notice ideological and linguistic traps (let alone to penetrate the fog of misdirection and escape them) it is essential to yield some degree of comfort and certainty. Yet in so doing, what is lost in narrowness and naivety can be gained in breadth and freedom to 'speak one's own word.'

Traditional literary criticism concentrated on understanding 'what the author meant' and classifying his/her stylistic attributes according to a pre-defined system of taken-for-granted criteria. Today the writer occupies a less privileged position and texts have been said to provide an open framework for the *construction* of meanings. While this view may readily be overstated, the reader has become much less a passive observer and more an active participant in the communication process. The reader is fully capable of calling forth meaning, purpose and intentionality from a range of sources, including texts. While in practice some texts may be susceptible to only a limited range of interpretations it is, of course, always possible for the reader to reject textual assumptions and claims, indeed to leap beyond them to quite new areas of concern. This is a key point: knowledge is never 'finished' and therefore meanings are always fluid and negotiable. The ramifications of this view are of great significance for people facing up to the apparent inevitability of socio-technical systems. This is so because, in presuming a more equal status between author and reader, an important principle can be established which applies equally to other contexts: advertisements, editorials, newscasts, political speeches and images/projects of the future. The concept of 'text' can be utilised as a metaphor and applied it to cultures and traditions.

Contrary to received wisdom (if that is the right term), our present transition from industrial ways of life is not centrally a matter of economic and technical change. These features are 'noticed' and exaggerated by viewpoints founded upon or conditioned by, instrumental reason. Opposed to this perspective (which stresses externalities) it seems to me that *by understanding the present cultural transition not so much in terms of the external regulation or control of techniques and technologies, than as a transformative process involving breakdowns and renewals of meaning, we penetrate to the core of all our major concerns.*

In a critical futures view those concerns are perennial. They relate to the essentially human process of constituting meaning, significance, purpose and value. It follows that if individuals are free to reinterpret texts they are also free to reinterpret inherited traditions and normative views of 'desirable futures.' (In fact, we should doubt if they can do otherwise since meanings are never simply copied, duplicated, taken over intact.) If there can be no final or authoritative reading of history or futures, it follows

that in principle each person has the same potential right of access to the crucial councils and commitments of the day. Those who so choose can, therefore, without regard for social status or academic qualifications, participate in cultural reconstruction and renewal at a very fundamental level.

Social learning and social innovations

Social learning is always necessary when a society must adapt to changing conditions. Yet there is always a time-lag between perception, decision-making and response. In the twentieth century we've seen some highly effective group learning and innovation in areas like medicine, computing and space exploration. Yet in the wider arenas of public policy such as health, economics and the environment, we have witnessed a string of long-term failures. These are multi-dimensional failures of understanding, imagination, vision and response. Today our societies, environments and children are more at risk from a variety of significant threats than ever before. Something is clearly very wrong with the social learning processes now in place. They are slow, ineffective and non-systemic.

The central problem is that the present world has been shaped by ideologies and epistemologies which developed in an earlier, simpler age. Many of the standard assumptions, meanings and practices which came together in the industrial world view succeeded for a while in creating a civilisation of enormous wealth and technical power. But, at the same time, this 'cultural programming' had serious defects. Those defects are now showing up in all the major systemic difficulties which we are experiencing.

Social learning can take place at a number of levels and in a number of ways (Figure 3). *Surface learning* refers to changes which can take place regardless of underlying structures. *Organisational* learning refers to changes in patterns of human activity within organisations and groups. *Deep learning* refers to changes in cultural programming at the level of epistemologies, fundamental values and ways of knowing. Social learning can occur informally, through planned incrementalism or via. what has been termed 'crisis learning.' A further option is that of deliberate systemic change. However it is not an easy approach to implement at the social/cultural level because the degree of understanding, consensus and 'steering capacity' are highly problematic in pluralistic contexts.

Figure 3: Types of social innovations

Surface learning:	Byke helmets	Play groups
	Speed bumps	No-fault divorce
	Credit cards	Safe sex
Organisational learning:	Health insurance	Strategic planning
	Ethical investing	Neighbourhood watch schemes
	Futures workshops	Publically-funded institutions of foresight

Deep learning:	Universal suffrage	Intrinsic value
	Deep ecology	Post-materialist economies
	Intergenerational ethics	Critical and epistemological FS

The modern crisis of social learning is at least five-fold.

1. The world is too complex to be easily understood. This makes it very hard to achieve consensus.

2. The cultural programming now in use is defective in certain major respects (manifested, for example, in short-termism and lack of foresight capability). This means that major social formations (politics, economics, commerce, education, entertainment) tend to incorporate redundant principles.

3. Social and political leaders seldom have access to the necessary tools, understandings or policy options. They are hamstrung by questionable pre-judgements, self-interest and industrial-era imperatives.

4. There are too few forums where social learning can be facilitated. The offical organs of the state which could facilitate social learning (the judiciary, the parliament, the church etc.) are, by and large, still playing old games by old rules.

5. Diversionary surrogate worlds intervene between individuals and the reality of the social/economic/ecological context in which they live. They have come to play a powerful role in shaping perceptions of the world. But they occupy the human nervous system in a closed and unproductive loop, exerting a mystificatory effect which *obscures* major systemic problems.

Clearly there are no simple solutions to this mismatch between a deteriorating world picture and inadequate human responses. Yet social learning can be facilitated in many ways. Some possible responses include the following.

- Expose the theoretical and applied defects of the industrial world view.
- Pay careful attention to the critiques presented by marginal groups.
- Seek social support for necessary innovations.
- Highlight the critical role of social innovation and the role individuals can play in supporting it.
- Seek to re-write rules which are now unhelpful.
- Develop foresight capacity in many locations and link with long-term, sustainable visions.
- Reconceptualise present dilemmas as opportunities for human and social inventiveness.

Social learning is not something that can readily be imposed from above. It is more subtle and diffuse. However, some conditions for the acceptance of specific innovations may include the following.

- Broad agreement of the necessity of the change.
- Appropriateness of the change to perceived needs.
- Practicality of the change.

Social innovations are not limited to grandiose plans and schemes. The Institute for Social Inventions has collected many more modest examples. Yet the collective impact of many small innovative changes could be significant in the long term. Social learning will, in all likelihood, take place through each of the means noted here. Some will be directed, purposeful change, some will be incrementally achieved from the margins, and some will be crisis learning which is driven by the social experience of disaster. The latter cannot be avoided. But there is much that ordinary people can do to understand the shifts they are living through, find appropriate means of responding to them and therefore participate in the task of cultural innovation and renewal.

Agenda for the twenty first century

An agenda for the 21st century is needed now for the reasons outlined above: intentional change takes time. It must be organised. The necessary resources must be found and deployed. Structures need to be created. Enterprises need time to develop and grow. Yet, looking at the complexity of the world and the nature of deeply embedded dilemmas, one can easily feel overwhelmed. So, again, it is helpful to identify some broad, clear headings around which we can organise some coherent responses.

1. Repairing the damage

Given the enormous costs which the industrial system has exacted upon the world, repairing the damage has become a major imperative. There are very many areas and ecosystems which have been completely destroyed. Others have been severely compromised; entire species of plants and animals have been lost. This dynamic of destruction must be replaced with a new dynamic of restoration. Hence there is scope for a series of new professions to develop from the confluence of ecological science and environmental activism.

In the next century I would expect to see new communities devoted to ecological reconstruction springing up in formerly devasted areas around the world. Such communities will need to be government funded. They will not be like the communes of the 1960s and 70s - simple refuges from urban society. They will contain people with a commitment to healing the earth and the means to do it. Taken together, these communities could become a powerful and constructive cultural force.

2. Creating sustainable economies

This will be harder, but it is also inevitable because a non-sustainable economy is just that. However, there are so many contradictions to resolve (such as advertising and consumerism) that it will not be easy to re-direct economies addicted to earlier modes of growth. Growth will need to be re-defined. Resources will need to be re-valued. The environment will need to be brought fully into all economic calculations (instead of being dismissed as an ‘externality.’) At a deeper level, the ideologies and power systems which drive the technocratic machine will have to be challenged and

replaced. Similarly, the time-frames which are applied to human economic life will need to be re-assessed. Most importantly, it will be necessary to escape from the chronic short-termism now common in business, government, industry and education.

3. Releasing the potential within people

Some see this as the key to cultural renewal. For all persons have within them enormous capacities and powers which are hardly engaged in everyday life. Those who are able to locate their potential and to develop it have the ability to become constructive agents of change. The whole history of citizen action movements, of innovators and social activists tells us that people can indeed be very powerful. When linked with the right ideas and proposals this force is irresistable.

4. Creating institutions and processes of foresight

Foresight is an essential capacity to deploy at the social level and in the public interest. It is not just a personal capacity. It needs to be implemented in very many locations and linked with public policy formulation and decision-making at all levels. Enough examples exist from around the world to show how to implement foresight. These examples can be utilised to draw on the best work available. Foresight will be even more essential in the 21st century than at present. But since it will take time to create the institutional structures and to train the people who will carry it out, the job should be started without delay.

5. Finding new purposes and meanings

This is the culmination of critical futures work. It begins with the critique of what is wrong, redundant, no long helpful in contemporary cultures. It proceedes to develop alternative ways of knowing and being. These alternatives thrive upon new purposes and meanings, examples of which have been given above.

The purposes and meanings which powered the social system over some two hundred years have created a world of contradictions. The process of selecting new purposes and meanings will not be an easy one since powerful groups always have interests bound up in the way things were. Yet the de-legitimisation of redundant social principles and practices is overdue. The process of legitimating and implementing more constructive alternatives will be a major task for the next century.

6. Re-inventing culture through a renewed worldview

The way we see the world dictates the way we use it. So the commitments embedded in the foundations of industrial culture need to be examined and, where necessary, transformed or discarded. A renewed worldview will retain much that is good and useful from earlier times. It will retain notions of justice, equity and so on. But it will also include other elements such as sustainability, stewardship and a global, long-term view. I've suggested that such a culture can arise from the inner dynamic of higher-order human capacities, founded on wisdom. But the fact is that no one really knows. The culture that follows on from industrialism cannot be specified fully in advance. What is certain is that if the human race is to survive in a world worth living in, a world rich in other life forms, rich in resources, rich in human and non-human

options, then it will be with a culture based on assumptions very different than those now operating.

Towards a wisdom culture

There's a regrettable tendency to lable eras with instrumental titles like 'the industrial age' or 'the information age' as if these technical terms identified the essence of a period. But that really the case? Why should technology or economics dominate an entire era? Why not use some desirable human quality instead? What might a culture be like which aspired toward a real, substantive and applied wisdom? Such a culture might well begin with a more advanced model of what it means to be human (e.g. *Homo Gestault*). But what of the wider society and its structure?

Figure 4: Hierarchy of knowledge

WISDOM
(higher-order meanings and purposes)

KNOWLEDGE
(information with human significance)

INFORMATION
(categorised data: useful and otherwise)

DATA
(raw factual material)

Figure 4 provides a view of a hierarchy of knowledge. In this account, *data* is raw information. It could be any statistic or fact, but is meaningless without a context. *Information* includes data and indicates what category the data refers to. However, note that *misinformation* can occur when information is filed in the wrong category or when individuals or groups deliberately use information to mislead. *Knowledge* is created from information and data. It creates humanly significant meaning from patterns, relationships and accumulated judgements. Finally, wisdomis the process and the product of searching for higher-order meaning and purpose. Wisdom goes beyond the instrumental questions of 'how?' to consider 'why?' Hence, data, information and knowledge can be seen as stages on the path toward wisdom. Wisdom emerges from sources such as the following.

- The study of history, patterns of causation, the role of human actors etc.
- The study and application of philosophies.
- The practice of spiritual disciplines.
- The human aspiration to create higher-order understandings and realities.

What are the grounds for using a notion of wisdom culture in a futures context? First, it supplies a rationale and a method for transcending (literally 'going beyond') the destructive conflicts of industrial culture and establishing a different dynamic for cultural development. Second, it represents a humanly-compelling goal to aim for. The goal is quintessentially one which concerns human and social development. As such it may begin to correct the present imbalance between these and our presently

one-sided preoccupation with technical change and development. The loss of balance between the human and technical represents a major and continuing threat for all cultures. Third, the exploration of human possibilities at the peak of knowledge and experience reveals options for human and cultural development which are very difficult to reach from within an industrial worldview. Finally, if a compelling view of a wisdom culture can be developed, it may become a guiding image which positively encourages moves in that direction. Such an image would represent a more valuable contribution to culture than many of the more cognitive, quantitative and professionalised contributions of professional futurists.

So what might a wisdom culture be like? Figure 5 gives one possible overview. Note that if one assumes the highest motives possible (instead of the basest) then many existing problems and dilemmas seem to vanish. This clearly suggests that the consequences of a vertical shift of consciousness can be intensely practical. However, it's important to recognise that this is a very long-term process! The reality of a wisdom culture could well take many centuries to achieve. But, in the meantime it has enormous present-day value as a goal, a direction and a powerful contrast to cultures which have become dominated by technical systems.

Figure 5: Aspects of a Wisdom Culture

- Vivid understanding of common humanity
- Move beyond roles based on race, gender etc.
- Balanced use of rationality and intuition
- Higher motivations re-shape economic life
- Methods & institutions to foster growth of consciousness
- Education as a discipline in transcendence
- Technology as aid to transcendence, not substitute
- Local differences set in context of universals
- All people and religions seen as one in spirit
- Governance depends upon mastery of the system at each level: body/mind/soul/spirit

Source: Wilber, K. *Up From Eden: A Transpersonal View of Human Evolution***,** London, UK, RKP, 1983

It may be that a wisdom culture, or something very like it, represents the only long-term solution to the human metaproblem. For it will take the higher-order imperatives of true wisdom to repair the earth, reconceptualise the relations between people and people, and attain a new balance between people and nature. It will take such wisdom to look beyond the instrumental (and finally, disastrous) imperatives of 'faster...farther away...bigger...more.'

A wisdom culture inspired by the Perennial Tradition (i.e. the universal spiritual heritage of humankind) would be fully capable of articulating new meanings and purposes. This, perhaps, is the nearest we can approach to solving the human predicament. But such a view does have significant consequences. For example, it means that our pre-occupation with tools and technologies may be diverting our

attention from more vital possibilities. It also suggests that the present preoccupation with information industries and systems may be more of a passing phase than a lasting solution. *Without being guided by higher-order ethical norms, information societies will remain crippled by some of the defective programming they have inherited from the industrial era.*

Conclusion

A worldview is not like a machine to be broken down and acted upon as if it were an object. It is certainly intangible and our consciousness is interwoven with its structures. But this does not mean that we cannot reflect on it with clarity. Kekes provides us with a way of summarising the above argument. His outline is given in Figure 6, below.

Figure 6: Components of a worldview

- A metaphysics **(**a theory of the nature of reality).
- An anthropology (an account of the human significance of the nature of reality).
- A culture (a system of ideals).
- A diagnosis (an explanation of the discrepancy between the real and the ideal).
- A policy (a program for overcoming or minimising the discrepancy.

Source: Kekes, J. *The Nature of Philosophy,* Blackwell, UK, 1980, p 59.

From this outline we can see that the theories of the nature of reality that have driven the Western world over the last two or more centuries have become increasingly inadequate. In their place a more differentiated, system-oriented and holistic view is emerging. The anthropology which grows from this process diverges from the old view that humankind is separate from nature and posses a transcendent right to exploit it. The new (or renewed) position is that humans are a self-aware part of nature with the responsibility for protecting it and furthering the innate ends of life itself, rather than the destructive and anthropocentric ends of abstracted technology or the industrial era.

The culture that emerges is one whose ideals are structured by a need and a desire to re-sacralise the Earth and to live in greater harmony with it. The diagnosis is inherent in all the above: the faulty programming, cultural editing, false promises of unlimited material wealth, etc. that were characteristic of scientistic industrialism. The policy is emerging from a deep consensus generated by a congruence of insight in many cultures. One version was given above as an agenda for the twenty first century. While the surface details will always vary, the underlying concerns are the same.

Life needs to be continually re-constituted within a changing reality. Our reality is of a world poised on the edge of great peril yet possessing many of the tools of understanding, insight and action to choose a different destiny and steer toward more viable and fulfilling ends.

Appendix: Outline of Futures Concepts and Powerful Ideas

Part One: Basic concepts

1. WHY FUTURES? Underlying rationales for futures work. 2. A BASIC MODEL OF FUTURES WORK. The loop of exploration, distinguishing alternatives, seeing options, making choices. 3. THE FUTURES FIELD. Functional and conceptual outlines. 4. PREDICTION, FORECASTING, FORESIGHT. Major differences. Examples of foresight as a human capacity. 5. PAST, PRESENT, FUTURE. Separation of the tenses and graphics to show some interconnections and associated concepts. 6. EXTENDING THE PRESENT. A powerful notion which re-frames many human activities. 7. ALTERNATIVES AND CHOICES. Key concepts of the field. Illustrated via. a divergence map and outlines of five different social futures. 8. ATTITUDES TO FUTURES. Optimism and pessimism (and the ambiguity of each). 9. SUSTAINABILITY. Core concept which is now being applied to many basic human activities, with examples.10. CREATIVITY AND FUTURES. An active stance which offers ways of answering the question 'what can I do?'

Part Two: Powerful ideas

11. PROBING BENEATH THE SURFACE. The architectural metaphor and its uses. Levels of analysis in futures. 12. CRITICAL FUTURES STUDY. Origins, sources & main features.13. THE METAPROBLEM. Breakdown of the industrial synthesis. 14. CULTURAL EDITING. The nature of the active process which selects, shapes, frames and provides significance to the life world. 15. A CYCLE OF CHANGE. Making sense of rapid change and structural problems.16. RE-NEGOTIATING MEANINGS. Brief account of the interpretive perspective and its uses.17. THE FORESIGHT PRINCIPLE. What it is. How it works on the individual level. The shift to social foresight. 18. TIME-FRAMES AND TIME-CAPSULES. How different human activities have an appropriate frame. The 200-year present. 19. FUTURES IN EDUCATION. Not peripheral content but a structural dimension. Model curricula at secondary and tertiary levels. 20. IS FUTURES STUDY A DISCIPLINE? What qualifies futures as a discipline. What it contributes. Why it is essential. 21. SOCIAL INNOVATION AND SOCIAL LEARNING. How does social learning take place? Learning by thinking ahead. Social innovations. 22. NEW LIMITS TO GROWTH, NEW KINDS OF GROWTH. The need to re-establish limits. Re-defining growth. 23. BEYOND EARTH? The earth and space-centred perspectives compared. 24. INSTRUMENTAL RATIONALITY AND PARTICIPATING CONSCIOUSNESS. Two poles of the culture. The roles and limitations of each. 25. NANOTECHNOLOGY. What is it? Is it inevitable? What are some of the cultural implications? 26. FUTURE PEOPLE. Human development as a counter-dynamic to technical change. The transpersonal perspective. Homo Gestault. 27. MAPS OF KNOWLEDGE. Three ways of knowing and their uses. 28. TOWARDS A WISDOM CULTURE: a culture based on higher human aspirations and capacities. Used as a guiding image. 29. WHY FUTURES ARE ESSENTIAL. Re-stated rationale, drawing together some of the main ideas/propositions of the package. 30. AN AGENDA FOR THE 21ST CENTURY. Six points to focus discussion, enquiry and action.

Futures Concepts and Powerful Ideas was originally published by the Futures Study Centre as a companion workbook and source of teaching materials to *Futures Tools and Techniques*. In 2006 both books were used as source materials for a completely new volume entitled *Futures Thinking for Social Foresight* (Slaughter, R. and Bussey, M. 2008). The latter is available on-line from Foresight International at: http://www.foresightinternational.com.au

Note

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