**Futures Studies as an Intellectual and Applied Discipline**

**Abstract**

Nearly a quarter of a century ago the CIBA foundation published a book called The Future as an Academic Discipline. 1 I remember approaching the book with eager anticipation, then recoiling in disappointment as I read the turgid prose, the lacklustre analysis. If, at that time, the title had been posed as a question, then the answer would have been ‘no’. But now, nearly 25 years later, the answer is a definite ‘yes’: Futures Studies (FS) have ‘come of age’ during this time. This paper begins by tracing some of the reasons for that transition. My own journey into FS has paralleled its emergence from obscurity to a growing pre-eminence on the world scene. The paper continues with a review of how I taught Critical Futures Studies (CFS) in three universities before leaving academia to work as a full-time, independent futurist. Finally, it considers some of the significant links between the intellectual foundations of FS and an increasing number of highly significant practical applications in organisations of all kinds.

**Introduction**

To most people ‘the future’ is an abstraction, an empty box. Standing unconsciously within an empiricist frame, even highly educated people will ask questions like ‘if it doesn’t exist, how can you study it?’; or ‘can Futurists predict the future?’ Such questions are more revealing of the questioner than of FS because they display typical unexamined assumptions. The fact is that, yes, the future does exist: it is a profoundly vital component of the present (however defined) or, more fundamentally, a principle of present action, present being. 2 But, no, the future cannot be predicted. It can be understood, explored, mapped and created, but not predicted. This is because human beings are agents of history and their freedom of action means that the future cannot, in principle, ever be pre-determined.

It is easy to show in theory, practice and also experientially that this domain that we call ‘the future’ is not an abstraction, not an ‘empty box’ and not without a host of immediate implications and applications across the board. The future is important to people because it serves to support and enable the entire spectrum of their hopes and fears, their plans, purposes, goals and intentions. Remove these and you don’t have people, you have robots. The future is important to organisations because if they don’t take it into account the powerful forces it contains will undermine them and consign them to history. The future is important to human cultures and societies because the success of the industrial period has progressively undermined the capacity of the planet to support life and thrown up historically new forces and dilemmas that cannot be resolved by fatalistic ‘wait and see’ responses. The future is important to education because it provides principles and practices that are largely absent from present systems and structures but which hold out numerous options for development and renewal. So, far from being a fad, a fallacy or merely a lowly perspective, FS actually represents a paradigmatic turning point in the production and use of knowledge. It provides the tools for human beings to grasp their historical predicament, respond to it and to move on to new stages of civilised life. In other words, it is a sine qua non of a livable future. While not everyone will need to become an official paid-up Futurist, everyone does need, and will need, the understandings, skills and competencies that emerge from it.

Properly understood, FS provides an evolving view of the ‘big picture’ from a number of viewpoints and at a number of levels of analysis. In my opinion, mastering the forward view - that is, creating it, sustaining it and using it effectively - is the single most critical goal that any organisation can aim for. It may come as a surprise to some, but FS is grounded in ways that make it far stronger, more useful and more durable than is yet widely realised. As such it makes perfect sense to regard it as an emerging discipline. The next quarter century will see it permeate all relevant fields and stimulate the development of a huge range of emerging futures professions.

**Starting points**

My most early influence was reading sf. I saw very clearly that 'the future' was not an 'empty space.' Many futures were possible; however, most of those I encountered in fiction were pretty bleak. So as a teenager I found myself asking: 'why does the future look so bad?'

That question led me to search more widely. When I was training to be a teacher (1965-1968) I came across Edmund Leach's book A Runaway World.3 It was the first non-fiction futures-related book I had ever read. It made clear that a whole layer of reality was missing from the curriculum. Soon after that I went to live and work in Bermuda. I came to see that this tiny country had simply drifted into its future - which was looking increasingly bleak. Here I wrote (and photographed) my first book: Birds in Bermuda.4 It allowed me to explore the way that the natural features of the islands were being overwhelmed by the post-war development process. Behind the postcard tourist image was a very different story: one of materialism, commercial greed and short-term thinking. I felt that this was not a viable model.

So when I left in 1975 I entered the University of Lancaster through an 'independent studies' program, which allowed me to design 2/3rds of my Batchelor's degree. The result was a multi-dissertation program called Science, Technology and the Human Future which was completed in 1978, and for which I received First Class Honours. This gave me the chance to begin to explore the futures literature. From there I went on to do a Ph.D. which set out the foundations of critical futures study and explored some of the rich links between futures and education. During this time I found work by Lewis Mumford, Fritz Schumacher, Hazel Henderson, Robert Jungk and many, many others, illuminating. But the real turning point was the First Global Conference on the Future in Toronto in 1980. It was here that I first met some of the people whose work I had been reading, and also teachers with direct practical experience of teaching futures in schools and universities. Both gave me the confidence to continue and finish my Ph.D.

In summary, the key influences were as follows. First, outrage at the highly negative futures portrayed in SF. Second, a dawning awareness that key features of the social and global context were being overlooked by mainstream education, media, politics etc. Third, the intense experience of living in a social laboratory (Bermuda) that demonstrated some of the costs of ignoring the future. Finally, immersing myself in the futures literature, going to many meetings, and eventually 'joining in the conversation' with colleagues around the world. Since this time, critical futures study has proved to be a well of inspiration. Each year is a delight and a surprise as new insights emerge and new challenges and opportunities arise.

**The nature of critical futures work**

My main concern is to participate in, and help create, an advanced futures discourse. In my view it is this above all else that nourishes the raw human capacity for foresight. Beyond this, futures methods and tools, and what I call 'institutions of foresight' constitute 'layers of capability' which enable a society-wide foresight capacity. Foresight is highly relevant to education, but it is also intimately related to social learning. So I use the concepts, some methods, tools, literature and close contacts with colleagues to progressively develop my understanding of the near-future context: the 'future landscape’. The insights so gained provide many vital insights into our times, giving us new choices and a measure of what Habermas calls 'steering capacity'.

I do not see the future as an abstraction, but as a multi-faceted reality that affects human life and culture in many powerful ways. I also believe that the Western industrial worldview is profoundly defective. Hence I use a multi-levelled approach. At one level, I consider empirical trends; at another, laws, regulations and procedures in society; finally, at deeper level, I consider epistemology, meaning, paradigm commitments. I don't think we can come to grips with our reality without some kind of 'layered causal analysis.' 5 A clear diagnosis emerges that helps us discern a basis for a less catastrophe-prone civilisation. A foresight (or far-sighted) culture, based on certain ethical and humanistic foundations would, in my view, be a huge step in the right direction. It irritates me to see the instrumentalities of science and technology constantly over-identified with the future (see below).

In summary, I work with an evolving diagnosis of what has gone wrong in Western culture and an evolving view of what this means for the future. My output is in the forms suggested above: lectures, seminars, papers, books etc. In order that I may teach I always attend to my own learning. With a focus on understanding, discourse, paradigms and frameworks of meaning, I have little use for quantitative methods. However, I will happily use the output of such methods (eg. forecasts). For the reasons given, a 'critical futurist' regards critique as a central methodology. The essential point is: 'probing beneath the surface' (of social reality), or 'looking more deeply'. So my focus is on understanding our historical predicament, re-negotiating cultural commitments, empowering myself and others to induce this over-heated culture to change course away from the 'overshoot and collapse' mode it has been in for a long time. The essential goal of futures study as I see it is to help us make the transition from one type of culture to another, while there is still time to do so.

**Drivers of change, points of influence**

My list of key drivers of change include: technical dynamism coupled with scientism, materialism, commercial exploitation (profit-driven organisations such as the trans-nationals, banks etc.), nationalism (the military-industrial complex), colonialism, greed, short-term thinking, ego, fear of death and defects in the Western industrial worldview - particularly short-term thinking and the hegemony of instrumental rationality.

Western industrial culture certainly contains some desirable features (eg. ideals of social justice, technical skill, high material standards of living) but it is fundamentally anti-life, having lost its collective 'soul' during the industrialisation process. By this I mean it read out of its world picture key areas such as myth, ritual, connectedness, spirituality and the numinous. This diagnosis, far from being merely 'negative', helps us to locate the grounds of the global problematique in what I call the 'metaproblem'. In brief, a defective worldview is constantly creating the social world and progressively destroying the natural one. Social movements and some NGOs have to some extent moderated the dynamic of global deterioration. But far, far more needs to be done.

The trends I want to encourage include all those social innovations that break away from the industrial fantasy and re-connect us to each other and the earth. This means re-valuing native cultures, ending exploitation and embracing 'the other'. I also want to encourage people to feel symbolically powerful, ie., capable of re-defining their reality and actively responding to their own deeper needs, those of their children and of future generations. I therefore want to see the growth of foresight and wisdom in all the world's cultures. I want to see them implemented in every organisation and built up to the social and global levels. I also want to see morality and ethics become much more widely understood and applied. Otherwise I believe that technology or eco-catastrophe will overrun us, much as sf writers have depicted.

Unlike some of my futurist colleagues, I don't believe that aliens will visit us or that the human race is merely a transitional species that should make way for so-called 'intelligent' machines. Rather, it is a species capable of endless self-transformation, vertical (qualitative) growth and development. As a humanistic and transpersonal futurist, I will always regard science and technology as derivative and secondary. I look for a growing awareness of the different layers of being (in people and the world) and the progressive development of cultures toward shared transpersonal ends. The two writers I have found most helpful in this key area are Ken Wilber and Duane Elgin. 6

**Intellectual foundations of (Critical) Futures Studies**

The term 'critical' is often misunderstood, particularly in the USA. However, it does not simply mean 'to criticise'. Nor does it signify a negative or derivative stance. It is not threatening and should not be construed as such. Rather, it signifies a range of methods and tools through which we may look 'beneath the surface' of social reality in order to realise the full potential of futures work. 7 Critical futures study does recognise the partialityof traditions, cognitive frameworks and ways of knowing. It is therefore possible to problematise aspects of the existing social and economic order and to explore some of their contradictions. Why is 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 include 'racial equality', 'steady growth of GNP' and 'peaceful international relations.' These all sound highly attractive. But, given the real substantive character of ideologies, assumptions, systems of exploitation, repression and destruction now in place, they may not be realisable. Like the advertisements for women's fashions or impossibly perfect holidays they have little substance.

I take the view that regardless of its very many impressive technical achievements, late industrial culture is the most rapacious, self-centred, humanly and environmentally 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, in the extraordinary conditions of the late 20th century, business-as-usual outlooks are positively dangerous. These uncomfortable facts tend to be missed by the conventional discourses of dominant social institutions which, on the whole, are locked into short-term thinking and remain preoccupied with industrial-era priorities such as those of status, power and control.

Hence there is value 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 (or overly negative ones) 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.

Let me be clear: 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 notable 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 becomes too great in an over-stressed and endangered world. 8 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, as well as some lying beyond it. 9 Some key propositions of this approach are given below.

1. Discourse is not neutral. It is grounded in particular traditions and speech communities which cannot, by definition, be 'objective’. Intersubjectivity is universal but only partly rational.

2. It is helpful 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.

3. A presumption is made in favour of what Habermas called 'the human emancipatory interest;' or, simply, the fundamental interest of all persons in freedom, self-constitution and unconstrained conditions of life.

4. 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 the ‘industrial’ synthesis at the epistemological level and (b) recovering the ability to discern a basis for qualitatively different futures.

5. 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 overlooked by empiricist approaches).

6. Stories are regarded as powerful explanatory devices. They are not 'mere fiction' because they model human 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 (such as forecasting).

7. There is 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, including those associated with cultural editing. 10

The origins of these propositions lie in a number of related fields. They include the following.

1. The interpretative perspective, itself emerging from critical practice, hermeneutics, the analysis of discourse and semiotics.

2. The sociology of science and technology: science as a social product, technology as cultural text.

3. The critical theory of society: cognitive interests, Habermas' theory of communicative action etc. Foucault's analysis of power.

4. Speculative writing: stories that comment with awareness on past, present and a wide range of futures.

5. Environmental scanning and strategic planning: techniques of futures research applied in organisations.

 To this account should be added a number of others. For example, a masterly paper by Jay Ogilvy called ‘Futures Studies and the human sciences: the case for normative scenarios’ elaborates the perspective upon which the above account is based. 11 He demonstrates with great skill and clarity how FS should not be ‘knocking on the door’ seeking academic approval, so much as be seen as the fulfilment and culmination of certain key developments across the entire humanities. A different approach is provided by Wendell Bell in his two-volume opus, The Foundations of Futures Studies. Here he sets out a detailed account of the origins and purposes of FS, its assumptions, methods and an epistemology based on ‘critical realism’. For Bell, FS is a social science with a great deal to offer. Volume Two considers questions of values and the search for the ‘good society’. Overall, it is a welcome contribution to the grounding of FS in durable theories, perspectives and practices. 12

 These cultural and symbolic resources provide futures study and research with the kind of foundations necessary for any viable discipline. In turn they contribute to an advanced futures discourse and support a number of powerful metatheoretical and applied tools.

**The Knowledge Base of Futures Studies (KBFS)**

The KBFS emerged in response to a felt need for a more widely-shared account of what the field actually is and how the different parts of it reinforce each other. A special issue of the journal Futures in 1993 set out a provisional model and provided a number of commentaries on various aspects of FS. 13 The issue received wide support and was subsequently developed into a substantive series of books. 14 The first three volumes contain work by some 50 authors from around the world. The significance of the KBFS is that, first, we now have a collective statement about what the core elements of FS are. Second, and unlike earlier formulations, this account is not merely ‘Western’. Rather, it includes the work of people from many different cultures, east and west, north and south. Third, it incorporates notions of dissent and critique; the latter being seen both as a core methodology and as a part of the field’s own provision for quality control.

The present model is based on the following elements. These sub-headings are those from the sub-sections of the three existing KBFS books:

Volume 1: Foundations

Part 1: Origins

Part 2: Futures concepts and metaphors

Part 3: The Futures literature

Part 4: The foundations of Futures Studies

Volume 2: Organisations, Practices, Products

Part 1: Futures organisations

Part 2: Futures methods and tools

Part 3: Images and imaging processes

Part 4: Social innovations and futures

Volume 3: Directions and Outlooks

Part 1: New directions in futures thinking

Part 2: The outlook for the new millennium

Part 3: The long view

Volumes 1 and 2 provide a systematic overview of core elements of FS - elements that enhance and reinforce each other. Volume 3 samples some of the high quality interpretative knowledge that emerges from FS. It is significant for the role of FS within the wider community that such knowledge arguably cannot be derived from any other source. However, it is essential to note that the KBFS is not ‘foundational’ in the sense of constituting a set of monolithic, unchanging certainties. Rather, it will develop and change over time as a result of at least four processes:

\* critique - the elimination of redundant aspects;

\* innovation - the incorporation of new ideas, methodologies etc;

\* new voices - the emergence and participation of those from non-Western contexts; and

\* synthesis - new developments based on combinations of new and older elements. 15

Hence what is considered ‘foundational’ now will not be the same as that in times to come. Nevertheless, the existence of this knowledge base provides a powerful stimulus to the further development and application of FS as a discipline in many fields, not the least of which is education. Here there are a number of direct applications which include the following. The KBFS provides:

\* an authoritative reference source;

\* a source of methods, ideas, frameworks of enquiry;

\* a foundation for new futures modules, units and courses; and

\* a basis for in-service and professional development work.

The availability of this and the other resources mentioned above clearly signal the emergence of FS as a maturing field of enquiry and action.

**Critical Futures Study and research at the tertiary level**

FS has been taught successfully in a number of universities around the world for over 25 years. But, it must be said, most universities have been abysmally slow to take up and apply this fascinating discipline. My own experience at three universities in the UK and Australia suggests that students find it a very attractive option, but that university administrations are not aware either of its academic standing or its many successful applications in, for example, business and industry. Within the educational realm I have seen a vast, but latent, demand on the part of practitioners everywhere. The demand is latent because of what I call the ‘threshold problem’. That is, in order to find out what FS offers, people need to reach the threshold of the discipline and begin to explore for themselves what lies beyond it. Unfortunately, all-too-few people get the opportunity, so FS tends to remain out-of-sight, unexplored and unappreciated.

However, the failure of most established academic institutions to foster and develop FS does have real consequences because the means to do so are now flowing around them and taking other forms. They are springing into life across the internet which will soon support a range of distance offerings that will out-flank the built institutions entirely. Still, the experience gained from teaching FS in conventional universities will certainly help to inform what is attempted in other media and in other contexts. The following is derived mainly from the five years I spent at the University of Melbourne, Australia, teaching a number of FS units within an Institute of Education. 16

Critical futures study can be defined as the application of critical futures concepts, ideas, theories to futures problems.Teaching it is first and foremost a matter of providing an induction into the conceptual and methodological aspects of a futures discourse. It is about helping students to learn the language, engage with the literature, clarify understandings and join a global conversation with peers. The outline syllabus for an introductory post-graduate course I offered on critical futures studies included elements such as: an introduction to the futures field, building blocks of the approach, case studies, analysis of the industrial worldview, cultural innovation and the recovery of meaning, imaging futures, and futures study in education.

Specific foci for critical futures study are many and varied. The courses I offered touched on themes such as the following:

\* critical analysis of discourse and ideological interests;

\* the critique of worldview assumptions and practices;

\* the reconceptualisation of 'world problems';

\* analysis of person/person, person/nature and person/machine relations;

\* dealing with fears and concerns about futures; and

\* the design and implementation of futures curricula.

From even this brief outline, Critical Futures Study is clearly seen as a scholarly and applied activity. In my view it is not social science (which I take to be past and present oriented) and it certainly does not search for laws (which are inapplicable in the futures domain). As noted, it is certainly not concerned with prediction, nor even forecasting (though it may use, or refer to, forecasts, trends and the like). It has nothing to do with the so-called 'futures market', and nothing whatsoever to do with crystal balls and the latest commentaries on Nostradamus. Such activities belong to vastly different traditions of enquiry.

Rather, CFS seeks to provide a critical purchase on our historical predicament. It attempts to develop and refine tools of understanding that, on the one hand, reveal processes of cultural formation, cultural editing and, on the other, reveal options for intervention and choice. It seems to me that when this work is successful it has a number of outcomes: a new (or renewed) ability to diagnose ‘where we are’ historically, to clarify what is at stake, to reconceptualise the ‘global problematique’ and to re-direct human effort through self-constitution and cultural innovation. In educational contexts these outcomes mean that the most significant defects in existing systems can be overcome: teaching and learning can be re-connected to 'the big picture', the wider world, the actual social and personal prospects with which the young are faced.

In this view, CFS is not social science, though again, it may use some of the tools of the latter. It is not 'owned' by a professional elite, though it is certainly aided by practitioners and futures organisations. It is, both a cultural formation (because it incorporates some elements of the futures-related social innovation movements) and an academic discipline. However, the academic 'backbone' is essential: if FS could not satisfy the very necessary criteria of substance and quality that apply at the highest levels of enquiry we could not expect it to be taken seriously elsewhere. Hence, CFS flourishes where it has access to the skills and other resources (such as libraries, researchers and communications systems) that constitute the normal infrastructure of scholarship. As a relative newcomer which questions existing paradigms and historically validated knowledge formations, it also requires political and organisational skills within organisations. In addition, a range of humanistic competencies are expressed in futures workshops and other facilitative milieux where people are actively engaged in futures visioning, design and implementation. 16

In summary, critical futures study combines rational intelligence with intuitive and visionary abilities to provide a forward-looking context in which some of the 'big questions' can be posed and answered. 'Where are we going? How do we get there? What problems need to be solved? And why take this path rather than another?' Such questions tend to be obscured in most fields of enquiry, but they are central to FS and vital to the well being of society. They go well beyond the questions asked in related fields such as history, environmental studies, cultural studies and sociology. So, more than anything, the emergence of FS can be seen as a widely felt response to the deepest human and cultural needs of our time.

Critical futures research emerges from the above. A working definition would perhaps see it as the attempt to generate new knowledge about the constitution of human futures*.* Obviously, such knowledge cannot be limited to particular domains. It will routinely cross existing disciplinary boundaries and often challenge settled norms and procedures. Like critical futures studies, this approach to research differs from futures research per se in that it is not primarily concerned with using and applying the standard methodologies (such as scenarios, matrices, Delphi and the like). Rather, these are utilised sparingly and more commonly seen as part of the subject matter. Critical futures research has a number of characteristic foci that include the following:

\* research into the social construction of temporality;

\* the formation, negotiation and significance of images of futures;

\* the clarification of social learning processes and the application of social inventions;

\* the evolution of post-modern outlooks and worldviews;

\* the re-formulation and re-presentation of knowledge for global and futures-oriented uses;

\* the development of an ethical basis for acknowledging responsibilities to future generations; and

\* the study and implementation of foresight.

While, as noted, critical futures studies and research cannot be completely separated, it can be seen that the latter assumes a mastery of the former and is applied to more extended and demanding areas. For example, while critical futures studies may merely survey and/or critique young peoples' fears about futures, critical futures research moves on to consider the grounds of systemic solutions within a renewed worldview and culture. These are demanding areas and they require a high level of intellectual and applied capacity. So it is as well that the methodologies involved in critical futures research are thoroughly grounded in the critical/hermeneutic skills and metatheoretical perspectives outlined above. 18  They include the study of different types of futures discourses, of paradigm phenomena, of foresight contexts and the conscious design of post-modern worldviews. 19

**From theory to implementation**

If the claim made above that FS is not just a minor theoretical development but a broad-spectrum and paradigmatic one, then it will be applied in ubiquitous ways. Two examples of this are environmental scanning and strategic foresight. Both illuminate some of the powerful links between academic enquiry and practical applications in other contexts such as business and consulting.

1. Environmental scanning

The global environment is constantly emitting an infinite number of ‘signals’ about many, many processes. No individual, no organisation, can pay attention to more than a tiny fraction of them. In addition, the early signals of potentially influential phenomena are usually small, indistinct and hard to separate from the background ‘noise’. Yet the earlier they can be detected, the longer is the lead-time available to respond. So the central task of environmental scanning (ES) is to reconcile sensitivity to new and significant information with careful, systematic selection criteria. Given the turbulence of the early 21st century environment, the dysfunctions embedded in social, economic and some technical systems, and the rapid pace of change, ES promises to be one of the most widespread industries of the near future. It is quintessentially an information-, and knowledge-based activity. It will become ubiquitously necessary as organisations at all levels struggle to ‘find their feet’ amidst the turbulence and create viable strategies for moving forward.

There is a human and a technical aspect to ES. The human side is primary because the skills involved demand high-order cognitive skills. This is where futures work based on humanistic, critical and cultural sources comes into its own. From this perspective it is understood that all cultures contain non-rational elements, that values, institutions and traditions are socially-constructed, and that language and meaning are far more subtle and open-ended than earlier scientific and empiricist views allowed. So to carry out ES well requires an in-depth immersion in cultural understanding and the humanities. In this view, the most productive insights about the emerging future are less available through standard methodologies such as trend analysis and forecasting than from immersion in a high-quality futures discourse and the subsequent development of reflexivity, judgement and discrimination.

That said, the technical side of ES is also important. One of the earliest tasks for an organisation setting up an ES system is to create its own particular ‘scanning frame’. This is a device for paring away 99.99% of reality in order to focus on the signals, the processes that have a direct bearing on the present and future functioning of the organisation. The scanning frame acts as a dynamic filter to screen out unwanted material. But, in so doing, it may also miss new and significant information. Hence the frame must be constantly re-assessed and revised to take account of the new, the novel, the ‘lone signal’ that may herald entirely novel phenomena. Entire books have been written on ‘how to set up an ES system’ within an organisation. 20 They contain all the basic knowledge needed: the key purposes, the operational requirements, the information systems needed and the uses to which the products of ES may be put by decision-makers. These technical and organisational issues must be resolved on a case-by-case basis. There is no one ‘right’ way to set up an effective ES system.

Overall, it seems to me that high-quality environmental scanning will necessarily become a core competence within a wide range of organisations. The informal, CEO-led, ES of the past that depended solely on a personal, idiosyncratic, reading of the external environment is now as useful as a paper hat in a hurricane. The torrent of change we are all immersed in will certainly overturn many industrial era assumptions and the organisations based upon them. We can already see this happening with schools, government departments and many, many businesses. In each case the imperatives operating within organisations are increasingly ‘out of sync’ with those of the wider world. So, like the human capacity for foresight in general, ES is a necessary innovation which serves to protect from anticipated dangers and also alert us to whole new areas of opportunity.

2. Strategic foresight

Strategic foresight (SF) is the ability to create and maintain a high-quality, coherent and functional forward view and to use the insights arising in organisationally useful ways; for example: to detect adverse conditions, guide policy, shape strategy; to explore new markets, products and services. It represents a fusion of futures methods with those of strategic management. As indicated above, most organisations operate primarily on the basis of priorities and principles laid down in the past, within a taken-for-granted worldview. They modify their underlying past-orientation with inputs from the current environment such as market information, economic signals and government regulations. But few attempt to bring these factors from the past and present into a coherent relationship with the forward view.

Strategic foresight is needed for a number of reasons. At the broadest, or ‘macro’ level, SF provides a number of ways of coming to grips with what I term the ‘civilisational challenge’. That is, the exhaustion of aspects of the Western worldview and the industrial ideology that went with it. Though essentially superseded, this ideology remains strong. It includes such elements such as: the denial of limits, the single-minded pursuit of material (economic) growth, the commodification of human needs, the reduction of natural entities to the status of mere ‘resources’, exploitative trade practices and future-discounting. Such elements have contributed to what has been termed the industrial ‘flatland’ which, in essence, is an overly empirical, hence ‘thin’ and eventually self-defeating, view of the world. 21 My own reading of the forward view suggests that the continuation of ‘flatland’ leads inexorably to a world that no sane person would want to live in, much less pass on to their children. It is a world that is impoverished, mined-out, polluted, stripped of (non-human) life and overwhelmed by increasingly powerful technologies. 22 Strategic foresight provides a way out of this cultural trap. It does so by helping organisations to grasp some of the major ‘big picture’ concerns about human purposes, cultural evolution and sustainability. Since the wider implications of such concerns lie ‘in the future’, they have been glossed over by mainstream economists and de-focused by conventional empiricist, short-term, bottom-line thinking. But SF brings them directly into the decision-making arena.

Second, strategic foresight must be of direct use to organisational policy and practice on a day-to-day basis. While organisations will have to face the long-term issues eventually, their immediate priority must be to remain viable in the short-, and medium-term, present. Here, SF brings into play a new range of factors and possibilities. As noted, environmental scanning can alert an organisation to ‘signals’ in its operating environment that herald challenges to its business, new opportunities and the identification of new products and services. Again, the careful use of scenario-building techniques can provide a range of high quality insights into the near-future environment. Armed with this ‘foreknowledge’ a variety of strategies can be explored under different assumptions and conditions. As a result, the organisation is not only alert to ‘signals of change’, it can grasp opportunities to develop a range of possible responses. Hence, reaction time is reduced. Decisions can be made in a broader context and with greater confidence because the near-term future ceases to be an abstraction. It becomes a highly significant part of the immediate operating environment.

Third, an extension of this argument is that strategic foresight can be developed to the point where it opens out what Hamil and Prahalad call ‘future competitive space’. 23 This means that organisations do not have to wait for the promptings of competitors or the mythical call of ‘market demand’. Instead they can decide what they want to do and then put in place the means to achieve it. This sounds unexceptional until it is realised that the forward view contains many novel and unconventional possibilities. It is only by giving that view due attention that the latter can be understood or recognised. Here are insights into new industries, new ways of solving old problems, new sources of impact-free wealth-creation, the grounds of new business and civil cultures. Clearly, the forward view is a significant resource that can contribute to management and strategy in a number of ways.

To sum up: the underlying rationale for strategic foresight is that the world is changing rapidly. The forward view tells us that there are a number of very real dangers to avoid and an equally impressive number of opportunities to be taken up and developed. This pattern of dangers and opportunities is highly relevant to everything that an organisation attempts to do - even in the short-term present. Organisations that attempt to move into this turbulent, challenging, future without SF will find themselves overwhelmed by forces that were indeed visible for some time, but which were overlooked. On the other hand, while no futures method can imitate history and foresee all eventualities, organisations that routinely employ SF will find that they are better equipped to negotiate the turbulent conditions ahead. They will prosper and develop because they have understood the structure of the near-future context. In essence, a well-crafted forward view reduces uncertainty and reveals the grounds of otherwise-unavailable strategic options.

In both of the cases I have discussed we are clearly not just dealing with technical issues. Rather, these examples are representative of the wide range of emerging futures-oriented knowledge professions that require the development of high level human cognitive capacity, ethical judgement, discrimination, insight and in-depth understanding of complex issues and systems.

The development of these high-level human abilities constitutes a new disciplinary platform and opportunity for futures practitioners who are themselves willing to put in the time and effort to master new forms of theory, discourse and practice. In other words, the skills of Critical Futures Studies have ceased to be esoteric and have finally become practical. As such they will be increasingly used not just in schools and universities but also in government departments, businesses and, indeed, all organisations that wish to weather the turbulence that so clearly lies ahead. 24

**Conclusion**

This paper has argued that Futures Studies in general, and Critical Futures Studies in particular, have come of age. That is, FS can now be regarded as a viable discipline with multiple uses and applications. I also suggested that critical futures work taps deeper sources than the still-dominant empiricist American tradition and, in so doing, provides access to a range of powerful new tools and options. If this is correct then we will witness the further emergence of FS onto the world stage in both practical and applied ways. This would clearly enhance the prospects for humankind to weather the storms ahead and move on to a truly post-post-industrial civilisation.

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