

Book reviews

Foresight. The Art and Science of Anticipating the Future

Denis Loveridge, Routledge, London, 2009, 282 + xv pp., Review DOI 10.1108/14636680910994987

One of the great discoveries of the modern and post-modern eras is that what we see is an active process that depends very much on the “map” of the world that we adopt and the various “filters” that color our perceptions. It is, in part, the mediated nature of human perception and social reality that makes our attempts to understand them and the wider world so challenging and inevitably controversial. What makes this book so interesting is precisely the journey undertaken by the author and the way it reflects the rather specific resources he brings to bear on foresight work.

Loveridge's early career was as an analytical chemist. He then worked in industry (namely Pilkingtons, the glass manufacturer) before moving into planning and what later became known as foresight. His interest in systems and his views about their importance are entirely in accord with this background and gives the work a distinctly no nonsense empirical character throughout. The book is divided into two parts. The first is a treasure trove of notions about practice; the second takes this thinking and applies it to wider, longer-term concerns. The stated purpose of the book is to bring systems thinking and futures studies together and in so doing to “strengthen the case for foresightful futures studies.” The introduction deals with “the Earth as a living system” in which he critiques the hubris of humankind in thinking that they are, or could ever be, “in charge.” It is a theme that recurs throughout the book. Like Lovelock and many others he appears to believe that one way or another

humanity is likely to suffer as a result of it not understanding the imperatives that lie hidden within the global system.

For the reader there are two hurdles to cross. The first is the fairly dense nature of the material which is, perhaps, best encountered over an extended period. The second is the author's style which, it is fair to say, is skeptical, dour, humorless and dryly instructive throughout. It reads in many places like an over-extended lecture lit by flashes of brilliance. Readers willing to surmount these obstacles, however, will find that the book has a lot to offer. It is valuable to have experienced practitioners summarize their experience and modus operandi in this way. Such accounts become part of the track record and shared experience of the field.

Chapter 1 launches into an exposition of “foresight and systems thinking” in which the author sets out his view of basic concepts including the elements of systems, his preference for “situations,” not problems, the role of language and the importance of appreciation. One already senses the vast complexity of the terrain and a barely concealed impatience with what he sees as inferior and “unsystematic” work. Chapter 2 deals with epistemology and theory while acknowledging at the outset that they “will not make much difference to what actually happens in the real world.” A highly compressed sketch of the history of foresight gives way to a brief discussion of items drawn from foresight literature and an overview of the values and lifestyles (VALS) behavioral typology, itself derived from Maslow's familiar hierarchy of needs. The six themes of the STEEPV model (social, technical, environmental, economic, political and values) are briefly noted along

with a challenging “policy hierarchy” that, at face value, would seem likely to defeat most policy and decision makers. This may be one reason why, at one point, the author admits that work along these lines “can be reduced easily to farce.” Prioritisation is identified as a major concern as it is “the step that links a foresight practitioner’s world to that of their political counterparts.” Some criticisms of systems theory are outlined along with Saritas’ conclusion that there is little evidence of it being widely used in foresight contexts (Saritas, 2006). Chapter 3 sets out the nuts and bolts of “institutional foresight” and also concludes that implementation generally is what he calls “an Ackoffian mess” (Ackoff, 1974). There is a long and useful appendix dealing with the application of the framework to national foresight exercises.

Chapter 4 deals with “foresight in industry” in which the author makes “no apology for the sometimes heavy influence of personal experience from 45 years in business and industrial research.” This helps explain the dated feel of the chapter that has some interesting points to make but will be mainly of historical interest to anyone working outside business and industry. The model of what is called “intelligence gathering” is also dated and completely overlooks more recent work in what is now better known as “environmental scanning” (Hines and Bishop, 2006). Chapter 5, on “generalisable outcomes” again acknowledges the fact that the output of foresight work “only comes ‘alive’ through the imagination of the human mind” and only “when associated with substantive knowledge and assessing ability.” Yet fundamental questions of human capability are only mentioned in passing are not seen as primary factors in their own right.

In the same chapter the author reveals his skepticism about global warming. Setting aside the evidence for what is now known as “anthropogenic forcing” (Steffan *et al.*, 2004) he holds to the view that

“the Earth’s climate may be going through one of its periodic shifts to a new regime.” Quite perplexingly to this reader, and in contradiction to what is suggested elsewhere in the book, the author also states that “the future of humankind is purported to be threatened.” Only “purported”? A similar skepticism is evident in his concern that “complex reports are simply accepted at face value, much to their detriment” and “not much attention has been given ‘to their social underpinnings.’” This may be true in some environments (especially, I would say, business and industry) but not, I would argue, within advanced foresight practice *per se* (AFI, 2002-2006; Slaughter, 2005). A systematic process for dealing with “change” in foresight is outlined that includes dynamic mapmaking and ecosystem resilience. Chapter 6 deals with scenarios, suggesting that they “offer the planning fraternity the opportunity to include and embrace uncertainty in their thinking.” Concepts such as mental models, boundary setting, causality and “event strings” are reviewed along with the vexed issue of probability. The role of scenarios as a learning process is also covered. There is a substantial summary of a nine-step scenario process and a brief discussion of the critique of scenarios that hinges on the question of “whose values and norms” are being evoked.

Chapter 7 on “sustainable world” contains a great deal of stimulating and useful material. For example, the author stresses the centrality of stewardship. He also divides a discussion of sustainability into what he calls the “protagonists” and the “antagonists.” It is significant that his favorite authors are all from the 1960s and 1970s. There is a critique of what he calls “growthmania” and a brilliant statement about how sustainability and sustainable development are not “problems or projects amenable to reductionist thinking leading to a solution or an end point.” Rather:

They are . . . dynamic cascades of interdependent situations of ever-shifting character that emerge

from interrelations between the human and natural worlds, in which the absolute dependence of the former on the latter is recognized and acted upon (p. 203).

Similarly:

Humanity is unlikely ever to possess the breadth and depth of understanding needed to “manage” the “Earth as a living system” yet that is what is being proposed . . . the human mind simply cannot cope with the complexity involved (p. 211).

Indeed, “no one knows what the conditions are for sustainability or sustainable development.” What, therefore, can humanity do? The somewhat underwhelming answer is drawn from a book published over a quarter of a century ago by Aurelio Peccei that called for “a change in mindset among policy makers and humanity as a whole” (Peccei, 1982). After encompassing such a broad territory this is at first sight a rather puzzling conclusion. It is also reflected in the final chapter where the author makes a heroic attempt to look ahead to 2050 and beyond. A compressed historical overview of human history is followed by a section on “understanding the present” and the “fuzzy horizons” of tomorrow. Some interesting and suggestive models are put forward that outline “long duration human needs and world needs.” It is the “massive connectivity” between these that generates the “cascade of situations” leading to the “hierarchy of dilemmas for policy makers.” This overview then prompts a reprise of some of the book’s earlier themes: the critique of “growthmania”, the centrality of values and norms (that the author claims are “assiduously avoided in almost all foresight”) and the need for humanity to learn, or re-learn “the notion of limits.”

If I place myself in the situation of the author, I can appreciate the time and care that has gone into writing this book. It is what one might call a “life project” and it is to his enduring credit that he has given us such a full and detailed account not only of

techniques and practice, but also of his own perceptions, preoccupations and blind spots. For the book is not merely about foresight practice. It is also a self-portrait. He has labored to convince the reader that foresight is indispensable and that systems thinking can enhance it and make it more potent and useful. What he has not been able to demonstrate, however, is that the procedures that are covered in such detail actually achieve great deal. Rather, they seem frequently to be defeated by institutional inertia, lack of knowledge and human idiosyncrasy. This is, perhaps, why he writes of the “farce” that such work all-too-readily descends into. Conceptualized thus, the sense that applied foresight is almost “too hard,” is reinforced by the sheer complexity of the issues it attempts to address and the “massive interconnectivity” involved that pushes human capabilities to their limits, and perhaps beyond them.

A very few of his comments, however, are quite simply wrong and reflect a lack of familiarity with available sources. For example in discussing Maslow’s hierarchy of needs he claims that “the transformation of information into knowledge, and subsequently into wisdom . . . has, perhaps, barely been considered in the foresight world”[1]. Or again, “the modern debate does not focus on the concerns that occurred centuries ago: population, food supply and disease, but on factors relating to climate change.” Statements like this reflect a surprisingly limited grasp of the wider foresight literature (Diamond, 1998, 2005).

To return to the main purpose of the book one has to concede the basic point – as far as it goes. That is, we can certainly agree that systems thinking can in principle contribute to foresight work. When used appropriately (which apparently is a “big ask”) it adds coherence and rigor to the process. The author provides a host of suggestions to expedite this work. When, however, the book strays further afield and pronounces on other issues, some of

the gaps begin to show. What emerges is an “S&T” or “engineering” view of the world – one where the external, measurable and systematic aspects of reality are recognized but the “shaping interiors” are sensed only dimly, if at all. This is evident throughout whenever interior phenomena such as mindsets, capabilities and especially values are mentioned. They come across as poorly defined factors, not as structural realities with their own specific – but very different – dynamics (Beck and Cowan, 2006). As a result, world models get a mention but worldviews appear insignificant. Sources dealing with how such interior factors relate directly to foresight and futures studies are completely overlooked, as is the most useful and practical guide to applied foresight work currently available (Hines and Bishop, 2006). Similarly the reliance placed on earlier static or “frozen” models of human functioning such as VALS is dated. More useful, dynamic and discriminating developmental models have been available for some time (Wilber, 2000; Hayward, 2008). They arguably provide answers to a number of the organizational dilemmas that Loveridge has identified, including a clearer understanding of why foresight may be accepted or rejected within organizations (Hayward, 2003).

A deeper point is that the tools of analysis and framework of enquiry that the author deploys all stand broadly within the Western tradition of scientific rationality which itself arguably has drawbacks. For example, Sahtouris (2009) notes that:

Very few scientists are even aware that the entire edifice of science rests on a set of unproven beliefs about our universe and ourselves, such as that the universe is non-living, that humans can study this universe objectively, that physics can describe this universe adequately, that our consciousness is an emergent product of matter, etc. So the first task is to bring this awareness to science itself, and show that alternative sets of

assumptions may fit the actual data of science better and lead to whole new fields of inquiry. For example: If the assumptions of Vedic science that consciousness is universally primary and gives rise to matter (the exact opposite of the belief that matter gives rise to consciousness) fit better as a foundation for western science, the implications would be enormous. And exactly this is the conclusion of many western-trained scientists.

Loveridge neither acknowledges that the foundations of science are themselves contested and uncertain, nor does he open to the possibility that other options, other ways of knowing are available to inform the practice of foresight. Many of those schooled in the “hard” sciences do, after all, still tend to take a rather dim view of such matters, believing them to be “soft” and “secondary.” And yet a clearer appreciation of the “shaping interiors” – worldviews, values, traditions and consciousness itself – reveal different truths and more encompassing approaches to the wider issues raised here (Wilber, 1983; Brown, 2006). Lacking any reference at all to these we are left at the end of the book with a very British sense of “making do.” The “take home” message that “humanity is truly in a wilderness,” its only chance at survival perhaps being to “retreat towards a belonging behavior” that might in some way “fit” humanity back into the systems it has abused and does not understand. While systems thinking can add rigor to those aspects of (mainly external) reality to which it most directly applies, it falls silent when confronted with the human and cultural interiors. As such it offers little hope and cannot credibly address the most serious issues facing humanity. That, really, is the point. Such thinking can be seen as a component of as many as eight fundamental perspectives that arguably are the minimum needed to do justice to a multi-dimensional and interwoven reality (Wilber, 2006; Esbjorn-Hargens, 2006)[2].

Overall I was challenged and stimulated by this book. It is not only a

courageous attempt to beef up foresight and futures studies it is also a commentary on the prospects for humanity informed by the tools and knowledge at the author's disposal. Beyond the subject matter itself, what I found most interesting was the way the author had created such a rich picture from a relatively restricted palette. As such, it raises questions about exactly what professional resources this kind of work requires of would-be practitioners in an increasingly complex and troubled world. Yet as an account of one man's journey through contested territory it is a fascinating book that will replay careful study and provide material for debate for many years to come.

Richard Slaughter

Notes

1. This theme was explicitly treated in Slaughter (1995); also more recently in Hayward (2003, 2008).
2. These "eight native perspectives" relate to the interior and exterior view of four "terrains" of reality. These are the terrain of experience, the terrain of behavior, the terrain of culture and the terrain of systems (see Esbjorn-Hargens, 2006). The latter are more commonly known as the "four quadrants" (Wilber, 2006). For an earlier versions related explicitly to foresight see Slaughter (1999, 2004).

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La cyberguerre, La guerre numérique a commencé (CyberWarfare, The Declaration of Digital War)

**Nicolas Arpagian, Vuibert and IERSE, Paris, 251 pp., €26.00
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This book treats comprehensively – and in admirably clear terms – the pitfalls in daily life of the fast-growing internet and, more specifically, in the relations between individual users and public authority. Author Nicolas Arpagian deals with his topic, complex as it is and expanding everywhere daily, with both a mastery of the technical knowledge required and unusual sensitivity as to the social implications – and how to make both known to the layperson. The reader will benefit immensely from its data-packed 250 pages analyzing this new, economic-political-military form of stress and conflict.

Arpagian pays the most attention, therefore, to the rising use of the internet and its abuses, but he is also concerned with other, established telecommunications – especially the telephone, whether portable or fixed. In many countries the caller and recipient of telephone messages may be oblivious of intercepts made by his or her government. How much should this be accepted, and how curbed?

In the US, the primary reason given for interception is protection of the public from the flood of data to and from terrorists and other criminals. In China, the Marxist-capitalist State gives self-preservation, too, as the pretext for direct self-censorship, but exercised there by the principal servers (in China alone, Google has well over 300 million users, one-fourth of that nation's huge population; see p. 94). These are extreme cases of official snooping, with lesser intensities of passive intervention being recorded elsewhere in the world.

Internet and other “commo” facilities (radio, for instance) are used as well by governments in direct “warfare” amongst each other. Enciphered messages remain, of course, the primary targets of code breakers despite the growing complexity of

coding methods and the protection of encipherment. “The information war”, states the author, “designates chiefly a struggle in which IT is used to obtain or destroy intelligence” (p. 49). He reviews, in this respect, the on-going Echelon communication program shared by the governments of the US, Canada, the UK, Australia and New Zealand, targeted nominally against hostile countries but probably including many more. Echelon has become, furthermore, a bone of continuing contention among states claiming to be snooped upon by the five governments mentioned.

What does a government risk if, in fact, its communication methods are not impervious to intrusion by adversaries? Analyst Arpagian lists five probable menaces in case of national disaster (p. 71):

1. Physical consequences for the population (e.g. paralysis of transport systems of all types) and the psychological trauma resulting from such disorder.
2. Environmental consequences: water and electricity supplies; waste disposal; effects on chemical and nuclear plants, on broadcasting systems.
3. Economic impacts: industrial, financial and other societal losses deriving directly from IT-system breakdown.
4. Political disorder exemplified by tension, factional rivalry, demonstrations, riots, civil conflict.
5. Other disorder resulting from combinations of the four above.

Protection or violation of communications?

Much like the ceaseless improvement of firearms and weapons of more massive destruction, the improvement of communication systems is one of permanent innovation. Indeed, stresses Arpagian, “the rhythm of evolution of the means used does not depend on the R&D creativity of an industrial group” or “the technical prowess

developed by a military arsenal” – nor on exhibits at armament shows, to which even the public often has access. On the contrary, the knowledge that today’s communication systems will no longer be secure tomorrow encourages a certain humility among those conceiving more effective systems (p. 74).

Arpagian takes pains to remind readers that the most threatening actors targeting the security of communication systems are not necessarily governments. “In a good number of cases”, he reminds (p. 233), “the difference depends largely on imagination and creativity”. Here he alludes to the troublesome originators of viruses and phishing, the pornographers (especially those involving children and even infants) . . . even the aggressive sales pitches

common to the advertising and public-relations industries.

“Information is a fluid that must circulate to be profitable” (p. 117).

In daily life, the author is editor of a privately-circulated quarterly report called *Prospective stratégique*, financed by industry and government. He has previously published books on national security and globalized strategy systems; he is particularly well-informed on lobbies and less-militant interest groups in both France and abroad. His latest book is concrete, remarkably up-to-date, slanted to solutions, and worthy of publication in other languages (Chinese and Russian among them). Nicolas Arpagian can be contacted at cyberguerre@gmail.com

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