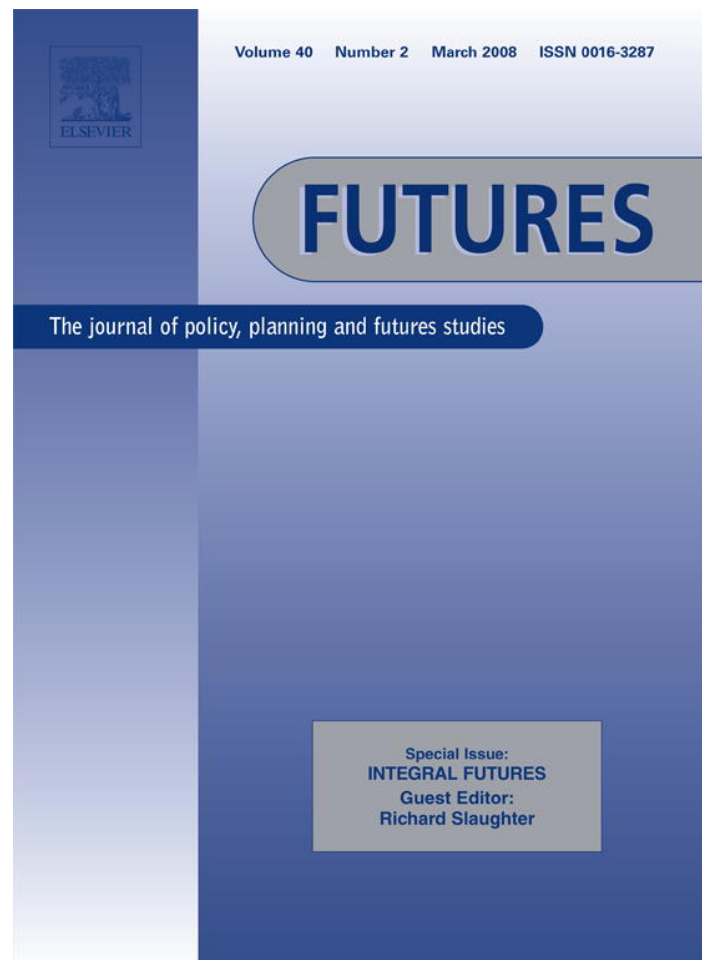


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What difference does ‘integral’ make?

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Abstract

Integral futures (IF) has developed over several years to a point where it has emerged as a productive way of understanding futures studies (FS) itself and re-evaluating its role in the wider world. It is not merely a new ‘take’ on FS but has brought the field to a new stage of development with many practical consequences. For example, consulting, research, publishing, the design and implementation of training programs can now draw on a broader and deeper set of intellectual, practical and methodological resources than ever before. Similarly, with its new clarity regarding the individual and collective interior domains, IF profoundly affects the way people operate and changes the way in which the advanced skills and capabilities involved in strategic and social foresight are developed and used. Some of the reasons for these developments are explored here in a review of specific effects as shown by a sample of futures methods. The paper concludes with some brief suggestions about broader implications for the field as a whole.

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1. Introduction

1.1. Changing methods and approaches in FS

In earlier papers, I discussed stages in the development of FS and applied foresight [1]. I noted a progression from forecasting and scenarios in earlier years to a social construction phase and, more recently, to integral futures (IF). Back in the 1970s, forecasting was regarded as a ‘cutting edge’ methodology. Since then, however, forecasting per se declined (so far as futurists are concerned, but not others) and we witnessed the rise of scenario building (or scenario planning), which was widely applied, passed into public awareness and frequently became over-identified with futures work in general. Yet a structural limitation of both forecasting and scenarios is that they focused predominantly on the external world. Critical futures studies (CFS) provided a corrective, in that it sought to open up the hitherto-overlooked, ‘social interiors’. That is, it saw the much studied *exterior* forms of society (population trends, new technologies, infrastructure developments and so on) as grounded in, and largely dependent upon, under-regarded social factors such as language, worldviews, paradigms and values.

While futurists had by no means overlooked the latter, they were seen by many as problematic topics that were (a) challenging to study in their own right and (b) difficult to integrate into existing methods. Ways to

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incorporate them systematically into futures enquiry and action were missing. A central claim of CFS—and one that can certainly be over-stated—was that it is within these shared *symbolic* foundations that the wellsprings of the present lay, as well as the seeds of possible alternative futures. Since the latter is widely believed to be a key guiding concept in futures work, generally, locating the origins of social alternatives in the ways that different societies actually worked was a significant step forward. Yet, as is not uncommon, critical futures work itself also lacked a further essential element: deeper insight into the nature of human beings and, in particular, the structure of their own unique interior worlds. By finally addressing that this ‘missing dimension’ IF has, in a sense, completed a 40-year process of disciplinary development. Or you could say that it has initiated a new phase in the development of a number of disciplines and fields with practitioners, who have taken the integral perspective seriously.

1.2. *What is meant by ‘integral’?*

The essentials of the integral approach are readily described but several caveats should be noted. First, there is far more here than first meets the eye. A variety of concepts, ideas and tools can be put to immediate use. Standing behind these, however, are more challenging notions such as the Holon theory and integral methodological pluralism (IMP). Second, it is vital to remain aware of the dangers of reification. The four quadrants, for example, are a device for thinking—they do not exist in the outer world. Care should be taken, therefore, not to make them—or any other part of the integral operating system (IOS)—‘too real’. Third, to master the integral approach it requires time and effort. It is anything but a ‘quick fix’. Realistically, it takes even the most dedicated a while to understand, work through and apply it successfully. So an early ‘rush to judgement’ is unwise. The ‘good news’, however, is that immersion in the many-sided task of integral thinking has proven to be productive from the start.

In essence the IOS is comprised of five elements: quadrants, lines, levels, states and types (see Fig. 1). The quadrants are ‘simply’ four basic ways of looking at things—the inside and the outside of individual and collective domains. ‘Lines’ refer to the modalities of human development, which include the cognitive, emotional, interpersonal, aesthetic, moral and values lines. These have been studied by a variety of ‘stage development theorists’ from Piaget forward and, taken together, they provide a rich picture of these hitherto-elusive human features. What makes them interesting is that interior human growth unfolds in each of these lines through distinctive ‘stages’ of development, each with distinctive features. ‘States’ refers to various states of consciousness. Everyone is familiar with waking, dreaming and deep sleep. But other non-ordinary states are included in this approach that include meditative states, altered states and peak experiences. Finally, ‘types’ refers to various classifications of humanity such as gender (male/female), personality types (Myers–Briggs profiles), participation types (agency/communion) and so on. Clearly, this is a very brief and simplified overview and there is no substitute for consulting original works, yet it clearly brings into play the considerations that fundamentally affect the way that we then understand FS and go about practising it. Wilber puts it this way:

because the IOS is a neutral framework, it can be used to bring more clarity, care and comprehensiveness to virtually any situation, making success much more likely, whether that success be measured in terms of personal transformation, social change, excellence in business, care for others or simple happiness in life [2].

There are many, I believe, who consider themselves successful enough in the futures field to believe that they ‘know what they are about’ and reject new approaches. Some confuse the individuals (e.g., Wilber) with the perspective (i.e., the working out of integral developments in various fields), which leads to a variety of misconceptions. Others have invested years of their lives creating their own very distinctive view(s) of the world, to whom integral thinking is fundamentally threatening, and hence unwelcome. In a sense this is understandable. The perspective challenges conventional thinking and long-held views. But the point, I think, is not to dismiss it out of hand. A better solution is to (a) seek to understand it, (b) find out what others have made of it and (c) test it out in practice. What is mainly at stake here is a certain rigidity that may come with an age and/or an unthinking over-investment in the fallacies of what might be called the ‘unreconstructed ego’. So while some ‘big names’ in the field affect to ignore these developments, the long-term judgement of the entire body of futures thinkers and practitioners will be authoritative and final.

Quadrants		Interior/Individual	Interior/Collective	Exterior/Individual	Exterior/Collective
<p>The four quadrants are a framework that classifies events (holons) into Interior, Exterior vs. Individual and Collective aspects. The quadrants do not stand in isolation but integrate and evolve in unison.</p>		Tense I	We	It	Its
		Focus Self & Consciousness	Culture & Worldview	Brain & Organism	Social & Environment
		Mode Intentional	Cultural	Behavioural	Social
		Ref. UL (upper left)	LL (lower left)	UR (upper right)	LR (lower right)
Waves		<ul style="list-style-type: none"> • Preconventional, Conventional, Post conventional • Prepersonal, Personal, Post Personal • Gross, Subtle, Causal • Body, Mind, Soul, Spirit • Galaxies, Planets, Gaia Systems, Heterotrophic Ecosystem, Labour division, Families, Tribes (L,R) 			
<p>Waves of development represent the evolution of Consciousness. There is an evolutionary flow thru the waves with each successive wave enfolding and moving beyond the prior level.</p>		<ul style="list-style-type: none"> • Foraging, Horticultural, Agrarian, Industrial, Informational (LR) • Prehension, Irritability, Sensation, Perception, Impulse, Emotion, Symbols, Concepts, Conop, Formop, Vision Logic (UL) 			
Lines/Streams		<p>Streams are lines of development that operate in all quadrants through the waves. Each quadrant has its own types of streams and the streams develop independently of each other and within the quadrants and waves</p>			
States		<p>States refer to the altered states of consciousness, which are brief, temporary, but potentially powerful experiences including spiritual experiences.</p>			
Types		<p>Types are classifications of humanity, orientations, preferences or relationships.</p>			
Perspectives		<p>Perspectives - the ways of knowing, or being, in each quadrant. It can be from an inside looking out perspective or an outside looking in perspective.</p>			
		UL	LL	UR	LR
		<ul style="list-style-type: none"> • Ego • Cognitive development • Imagination 	<ul style="list-style-type: none"> • Cultural world views • Values • Mutual understanding • Group identity 	<ul style="list-style-type: none"> • Biological growth • Neuro physical growth • Behavioural development 	<ul style="list-style-type: none"> • Techno-economic forms • Geopolitical structures • Evolution of social systems
		<ul style="list-style-type: none"> • Gross-awake, Subtle-dreaming, Causal-formless • Waking, Dreaming, Deep Sleep, altered, non-ordinary, meditative 			
		<ul style="list-style-type: none"> • Gender Types – Masculine, Feminine • Personality Types – Myers-Briggs, Enneagram, Jungian • Autonomy, Relationship • Participation Types – Agency, Communion 			
		<ul style="list-style-type: none"> • Viewed from the Inside vs. Viewed from the Outside as apposed to the Interior vs. Exterior quadrants • Is used in describing the way in which a system relates to its environment 			

Fig. 1. Lenses of Wilber's IOS/ways of knowing. Source: Richard Rowe

The four-quadrant model is the most obvious and immediately applicable element of the IOS. It has been proved widely useful in part, because it helps us to question the widespread habit of viewing the world ‘monologically’, i.e., as though it were ‘a singular entity’ (which is, of course, how it can appear to the external senses). This habit causes us to unconsciously run quite different domains together and ends up creating endless confusion. In hindsight, and with the clarity bestowed by integral methods, we can now see more clearly how different principles and tests of validity and truth (etc.) apply within different domains. Standard futures methods that return powerful insights in the currently still-dominant lower right (LR) quadrant (the exterior collective) are worse than useless in the upper left (UL) (interior individual) quadrant quite simply because they are dealing with different realities. Such knowledge—understanding clearly *which* kinds of knowledge apply in different domains—not only helps us to achieve more systematic ‘coverage’, but also brings greater clarity to the tasks that futurists undertake, as well as prefiguring more innovative in-depth solutions. The implications go much wider than the futures community to the re-framing of what I call the ‘civilisational challenge’ that we now face.

For example, in a paper on global problems Mark Edwards writes how ‘one increasingly pervasive and almost immobilising aspect of life at the beginning of the 21st century is the feeling that the immensely powerful forces which are shaping the social and natural environments of the globe are now out of control of any governing entity’ [3]. This is undoubtedly how many people, especially young people, feel. Taken at this general level of ‘problem description’ there is, however, no possibility of a solution. Similarly, if we follow convention and direct our attention mainly to the external aspects of the human predicament then we will encounter enormous difficulties. Thus one way of reading our current situation is that the global context becomes a trap for humanity, a civilisational end game. What is now clear, however, is that *conventional ‘exterior’ approaches to world issues only cover part of the territory*. What this means, in effect, is that those who follow the ‘exterior only’ path are unwittingly contributing to the problem. If, in addition to the familiar focus on exteriors, we also begin to draw more fully on the ‘interior collective’ (society) and the ‘interior individual’ (the unique world of each person) domains then it becomes clear how the integral approach affects FS. Some of the consequences include:

- a balancing of inner and outer perspectives;
- multiple and yet systematic views of our species’ history and development;
- access to the dynamics of social construction, innovation and ‘deep design’;
- aspects of the ‘deep structures’ of this and more advanced civilisations;
- a new focus on the whole spectrum of developmental options for practitioners and others (not merely their cognitive abilities); and
- new and renewed methodologies and approaches.

It is the latter aspect that this piece—and, indeed, the special issue of *Futures*—concentrates on. Futurists and foresight practitioners need access to the whole range of these new tools, perspectives and capacities. Like any other tool kit, they have their limitations and will change, develop and be replaced over time. Yet even at this stage they provide a starting point for depth insight, practical wisdom and a more durable foundation for futures work. The rest of this paper explores some of the implications by reviewing several examples of how IF affects, and quite clearly, ‘refreshes’, the existing futures methods. It is useful to begin by reflecting back on how the perspective outlined above brings new clarity to a simple method I developed during the 1990s.

1.3. *Re-visiting ‘mapping the future’*

In 1996 I published a paper called ‘mapping the future: creating a structural overview of the next 20 years’ in the first issue of the new *Journal of Futures Studies* (JFS) [4]. In it, I posed what I called ‘six questions for a structural overview’, reproduced in (Table 1).

There were a number of reasons why this approach seemed useful. First, it provided a way for non-specialists to obtain a first-order ‘scan’ of the near-term future, as viewed from their own location(s). Second, it began with continuities in order to balance what I saw as a near-exclusive focus on change. Third, it looked beyond the external context to consider sources of human inspiration and hope they are obviously interior

Table 1
Six questions for a structural overview

What are the main continuities?
What are the major trends?
What are the most important change processes?
What are the most serious problems?
What are the new factors 'in the pipeline'?
What are the main sources of inspiration and hope?

Table 2
Global continuities

The fundamental laws of physics that set limits to and conditions upon life (LR)
The ecological principles of interdependence and system maintenance (LR)
The annual cycles and seasons created by the Earth's passage around the sun (LR)
The basic neurological structures, characteristics and needs of people (UR/UL)
The archetypal myths and myth cycles in different cultures (LL)
The universal role of religion and/or spirituality in cultures (LL)
The need for enduring principles of social organisation (LL)

Key: UL = upper left = individual interiors; UR = upper right = individual exteriors; LL = lower left = collective interiors; LR = lower right = collective exterior.

Table 3
Results from a four-quadrant analysis of original Tables 2–7

	UL	UR	LL	LR
Table 2	0	1	3	3
Table 3	0	0	11	11
Table 4	0	0	7	4
Table 5	0	0	4	2
Table 6	0	2	0	6
Table 7	0	0	7	0
Totals	0	3	32	26

factors. I went through each of these categories by turn and gave what I then thought were useful examples. I will give just one example here (dealing with continuities) and then summarise the other questions in Table 3.

The original Table 2 provided an overview of global continuities. Only this time I have added after each the integral domains they invoke.

What immediately stands out here is that three items deal with the LR phenomena and three with the LL phenomena, i.e., social systems and cultures. The interiors and exteriors of individuals share only one item and are clearly under-stated. In Table 3, I have gone through the other five original tables and scored them in the same way. The results are fascinating.

The dominant category is the lower left and I think the reason is clear. I had spent a number of years developing CFS and what is the major focus of that approach?—The social interiors as expressed through, e.g., language, disciplines, paradigms and worldviews. Consequently, the method I put forward exhibits this bias or preference. Not far behind is the lower right, or external social/global system. That is no surprise because, as noted, it has been the common focus of the field since its inception over several decades. This is still where most futurists 'live', as it were, and have their being, as well as where they carry out the bulk of their work. In summary, the LL and the LR are, by far and away, the two most dominant areas of interest in this approach.

The UR, which deals with the externally observable, and hence measurable, directly knowable, aspects of individuals, gets a score of three mentions and it is worth noting that two of these are 'shared' categories. The

UL is notable by a score of zero, which plainly means that it was overlooked entirely. While it may well be the case that a review of the same material by others may yield slightly different results, it is pretty obvious, I think, that the main conclusions drawn here would stand. Here, then, are the hallmarks of pre-integral work in which the researcher's biases and perceptual filters are as invisible as the lived reality of the UL interiors in which they are located. They result in an unconsciously distorted view of the world that becomes painfully obvious in retrospect. The conclusion to the paper, which dealt with what I called 'four major challenges to humanity', follow from the above:

1. Can humanity free itself from the inherent fatalism of a 'business as usual' mentality?
2. To what extent, and how quickly, can powerful constituencies bring themselves to set aside the old industrial game, worldview, etc. and develop a different outlook ...?
3. Can a shift from short-term to long-term thinking be achieved across the board?
4. Is it possible to move beyond the politics of expediency toward implementing notions of sustainability and moving toward an intentional learning society? [4, pp. 21–22].

A decade ago this was my best shot at describing how humanity might respond to the 'civilisational challenge'. Today it could be described as 'whistling in the dark', in that it is attempting to evoke the UL phenomena but completely uninformed by the structures and processes that are operating there. Does this sound familiar? With this example in mind we now turn to look at how an IF approach can be said to 'refresh' other existing methods.

1.4. How it 'refreshes' other methods

One of the most welcome aspects of IF is that it is not exclusive, not in competition to other approaches. Rather, it complements them, revealing new options, insights and strategies. It is partly for this reason that the IF practitioner is ever and always respectful of the pioneers and pathways, the innovations and stages, that collectively led to this point in the development of FS itself. We would not be 'here' without the early pioneers and their work. We recall too that the integral approach provides a *map* of reality and is not, in any way, reality per se. It may be one of the most comprehensive maps available at this time, but it will certainly be superseded by other better maps in due course. Meanwhile, however, we can consider how the integral approach both respects and further develops the pre-existing methods. Here I will discuss four: scenarios, environmental scanning, the T-cycle and the causal layered analysis. Since scenarios are widely regarded as 'keystone' methods (and most unfortunately by some the 'only' futures method worth considering), I will begin there.

2. Scenarios

Scenarios were defined by a leading practitioner as 'devices for ordering one's perceptions about alternative environments in which one's decisions might be played out' [5]. According to another authority 'scenarios can be successful...only when (1) they are based on a sound analysis of reality and (2) they change the decision-maker's assumptions about how the world works and compel him to change his image of reality' [6, p. 32]. Furthermore, it is fascinating to note that, at the outset, attention was drawn to matters that IF only much later took up and operationalised:

almost by definition, scanning the business environment and crystallising the findings in a set of scenarios deals with the world *outside* the corporation... (But) this is only a half truth and is dangerous because there is another half. Because the raw materials of scenarios are made from this stuff of 'outer space,' it's not realised that something more is needed; scenarios have to be made alive for 'inner space,' the microcosm of the decision maker—this stage of the mind where alternatives are played out and where judgement is exercised [6, p. 94] (emphasis in original).

In other words, scenarios are complex strategic decision-making processes that embrace both the inner worlds of human and cultural meanings and, of course, the outer worlds of empirical reality. It is therefore

true to say, I think, that the key role of IF here is to re-balance what has been a very lop-sided situation by giving substance to these inner worlds that, although once seen as significant, were relegated over many years to a distinctly subordinate role. Part of this is due to the nature of the unacknowledged ‘perceptual filters’ that practitioners have employed (see below). But part is also due to the fact that, during the early 1980s when scenario planning was ‘coming into its own’, the maps of interior structures we now have were less well developed and less widely available.

It is useful here to refer to what might be called a ‘standard model’ of a scenario building process—one developed by the Global Business Network (GBN) and used in Australia (and elsewhere) by the Australian Business Network (ABN) [7]. In brief outline there are four main stages, as follows:

1. Orient,
2. Explore,
3. Synthesise, and
4. Engage.

Orienting involves a number of activities intended to create a ‘shared language for organisational learning’ and to ‘enable individuals to offer differing perspectives and to discuss key areas of concern’. Notions of a ‘generic business idea’ and a key ‘focal question’ are used to carry out and focus a ‘strategic conversation’ with key decision-makers. The outcomes of this stage are summarised in the following way:

You will have clearly identified and defined the nature of the business, critical success factors and where people in the business think that it should be heading. You have understood the ‘mental maps’ of the decision makers. The strategic activity and the ‘internal interview’ provided you with a framework for sharing organisational knowledge and potential experience [7, p. 20].

Exploring involves an attempt to ‘explore and map the external environment to gain rich data that will inform the strategic agenda of your organisation’. This point is both not only to depict ‘what is there’ externally but also to begin to challenge current assumptions about the external environment by ‘collecting and recording information, exploring unknowns, identifying environmental forces and determining potential discontinuities’. Much of this activity is structured around the familiar five-term acronym STEEP (social, technical, economic, environmental and political) or one of its derivatives. The main output of this phase is the construction of a ‘generic scenario matrix’ that runs two key uncertainties along two axes to create four basic scenario spaces.

In the next step, *synthesise*, participants utilise systems thinking in order to develop what are called ‘scenario logics’, or self-consistent ‘stories’, about how each of these worlds could develop. Scenario themes arise and the scenarios themselves are checked and progressively ‘filled out’. The results of this process include the ability to: ‘explore risks and evaluate strategic options; recognise signals of change as they occur; seize opportunities that you otherwise might not have seen; and test the robustness of existing strategy’. The final stage, *engage*, involves ‘wind-tunnelling’ existing strategies through the scenarios, generating new strategic options and finally gaining acceptance by decision makers. The latter involves preparing and giving an effective presentation to the sponsors of the project.

Even from this sketch it can be seen that, at this level, scenario planning is a complex and detailed process that asks much of both practitioners and clients. A high degree of self-knowledge is clearly needed, a non-trivial grasp (at least) of basic human psychology, to say nothing of organisational dynamics and the ability to discriminate and select from the ‘blizzard’ of external change that throws up uncountable ‘signals’ each and every day. It is interesting, therefore, that what stands out from this review is the *paucity* of insight into the UL (individual interiors) and LL (cultural interiors). There are a number of points in the standard process where both come to the fore. For example, in stage one (orient) the depth analysis of an organisation cannot possibly deal with operational matters without some consideration of, e.g., the business/organisational culture, the underlying economic framework that guides it and core values and purposes. Similarly, when researchers are engaged in their external scanning, it would seem essential that they are deeply aware of the nature and influence of their own perceptual filters since these materially affect not only what is seen but also how that is interpreted. Yet these aspects have been widely—I would say almost universally—ignored. Like much else,

environmental scanning only *seems* to be a simple process because the actual operations and processes involved are being broadly overlooked. Thus, the adequacy of the observer (scanner, scenario builder) is called into question. When we begin to talk about the ‘mental models’ of decision makers *without* a profound understanding of the major features of interior human development we are courting disaster, or at least the illusion that we know what we are doing. What, therefore, does the integral approach have to offer scenario building practitioners? For the sake of brevity I will offer two key points.

First, let me reiterate that IF both ‘transcends’ and ‘includes’ an earlier stage in the development of FS generally termed critical futures (CF). The latter, we recall, opened up the cultural world (the LL or interior collective), revealing a number of key features including: its evolution through distinct stages over time; processes of ‘cultural editing’ and ‘social legitimation’, how significance is constructed in different ways at different times and in different places; and, equally, access to the tools and knowledge that give back to society—at least potentially—what Habermas called deliberate social ‘steering capacity’. Or, to put it briefly, understanding cultural process in general gives many insights in the culture of organisations: the ways cultures shape people and behaviour, the ways that power plays out in various circumstances, the responses of individuals to the dilemmas created by organised social life and so on. It turns out that all these matters are non-trivial aspects of the scenario building process. The structures in the LL quadrant (e.g., stages of social/cultural development, worldviews, etc.) therefore have a direct bearing upon what is being attempted.

Second, the main gift of IF to scenarios is that it opens up what was hitherto a ‘black box’ of individual human interiors, the UL or the unique world of self-reference that all living persons are gifted with. As noted above, early pioneers of the scenarios method knew how central and important this domain is and how that overlooking it even then was considered ‘dangerous’. Don Beck made exactly the same point some years later in relation to the much-vaunted Mont Fleur scenarios in South Africa. With a background in spiral dynamics integral (SDI) he saw the situation quite differently to the scenario builders and reached very different conclusions. From his perspective the participants in the process were operating out of ‘different worlds of reference’. The failure to understand and deal with this inner dimension meant that:

The scenario process in South Africa failed in that they did not prepare society for what was going to happen...My key point is (that) until scenarios deal with the realities of the interiors, along with an understanding of natural habitats, they will be useless and even dangerous [8].

‘Useless and even dangerous’ is a harsh judgement but in many contexts a valid one. Both early on in the development of scenarios, and then much later, well-qualified people who fully understand the method used the very same term. Over the span of a 20-year period they agree that to omit, overlook, or otherwise diminish the interiors constitutes a serious professional hazard.

Now, however, the emergence of the all quadrants, all levels, all lines (or AQAL) and the IOS means that those hitherto-overlooked individual interiors are much more accessible. The AQAL approach is grounded in a formidable range of well-validated empirical work. Most people who have undertaken teacher-training programs have necessarily studied Piaget. But there are many others (including Graves, Rogers, Gilligan and so on) who have contributed to the perspective. The good news is that over 20 distinct ‘lines of human development’ have been studied and there is a broad agreement about the various stages found within them. What this provides is the kind of fine-grained discrimination that tells us a great deal about ‘what is going on’ within the human interiors. As will be seen below, this is no mere academic game. It turns out to be critical when it comes to the success or failure of applied foresight work.

In summary, the integral approach allows us to take scenario planning to a new and more capable stage of development. It means that we can go a long way beyond fairly simple, pragmatic ‘mental models’ and the ‘generic business idea’ (themselves innovations in their time) to the framing perceptions and the developmental capacities that underlie them. It also means that researchers and scenario planners can be more aware of the multitude of ways in which their own enculturation and interior development directly and profoundly affects everything they do. For example, in the US it has been a common practice to place advanced futures expertise and ‘competitive intelligence’ at the disposal of transnational corporations and government departments. But it now becomes clear that the social interests in doing so are, at the very least, partial and very much open to question. Does anyone still think that helping trans-nationals refine their marketing strategies leads to a better world? A number of high-profile corporate scandals over recent years are merely the tip of this particular

iceberg. Alternative spaces can be opened up and, to take only one example, an issue arises about how these very same people and methodological resources might be re-framed to explore the possibility of *collaborative intelligence* for *social* foresight in the *public* interest. Corporations themselves, as social innovations of great power, are yet only part-way through their own process of development and urgently need to be turned away from compulsive accumulation towards more productive roles.

Whether or not practitioners serve private interests or public interests, or some combination of the two, the integral approach brings clarity where before there was vagueness and wishful thinking. In doing so it reveals options and alternatives that were previously ‘unthinkable’, including insight into the possibility that practitioners’ own limited understanding may, in some cases, have served to undermine their conscious purposes. Finally, IF facilitates the generation and exploration of strategic options across the board that remained invisible all the time that ‘half of reality’ was overlooked.

2.1. *The transformative cycle (T-cycle) [9]*

This model considers breakdowns and renewals of meaning. It is based on another simple four-stage process, as follows.

1. Breakdowns of meaning, i.e., understandings, concepts, values and agreements that once served to support social interaction but that have become problematic, e.g., concepts of work and leisure, health, sexuality, progress and defence.
2. Reconceptualisations, i.e., new ideas that almost invariably challenge existing structures and the often-overlooked interests embedded within them.
3. Conflicts and negotiations, i.e., if new ideas are pursued with skill and vigour, then conflicts are usually inevitable. The path from conflict to negotiation is often a long and arduous one calling for high-level skills, persistence and support. Some conflicts get permanently ‘stuck’ at this stage. Some new suggestions are selectively legitimated.
4. Selective legitimation, i.e., the process of selective legitimation may serve particular interests and validates meanings that work against the majority. Nevertheless, there are examples that appear to represent tangible improvements in human welfare, e.g., the principle of sexual equality, environment protection, democratic elections and the UN Bill of human rights.

Fig. 2 depicts a slightly elaborated cycle that includes the possibility of ‘autonomous recoveries of meaning’. It also distinguishes between failed suggestions (i.e., those which did not achieve a serious hearing) and rejected suggestions that were simply ruled out of court. (The first task of any new idea is for it to receive

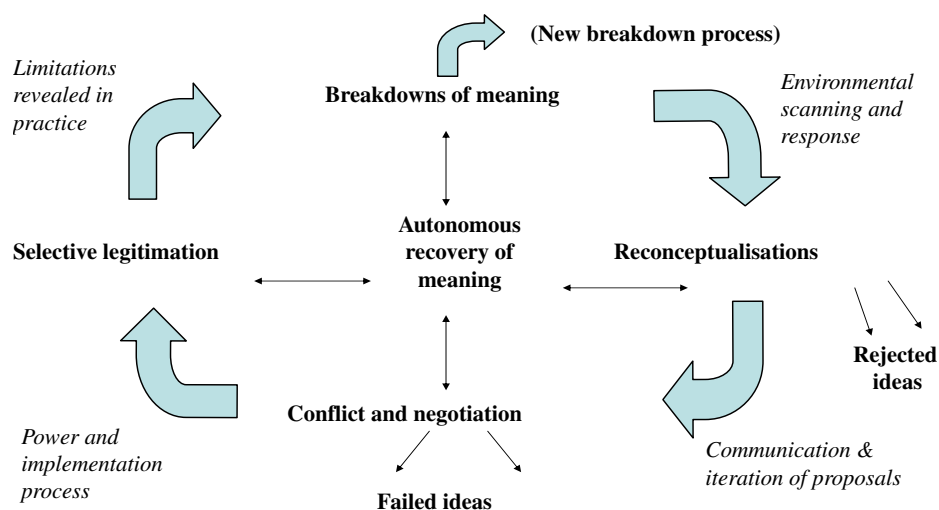


Fig. 2. Elaborated T-cycle.

serious consideration.) The cycle has four broad sectors. The first is an environmental scanning process that may be passive or active. In the passive phase the breakdown is experienced as external and inevitable. In the active phase it is subject to critical analysis and intervention. In the second sector the dominant process is that of the presentation and negotiation of meanings. Here ideas are deployed and many fall away as noted above. It is significant that empirical/analytic traditions of enquiry tend to de-focus this area and substitute a concern for empirical analysis or top-down models of forecasting and planning. Much the same could be said of the power process that draws on political, linguistic and other cultural sources.

2.2. *Integral development of the T-cycle [10]*

As noted above, the critical futures work—the attempt to fully consider the social grounding of all human activity—was an essential stepping stone that led toward the larger, broader and deeper perspective. The latter allows us to see where the great domains of human existence, both inner and outer, fit in a wider pattern. The four quadrants have already been mentioned. A further aspect concerns what Wilber has termed the ‘eight native perspectives’ which are inner and outer views of each of the four domains. Since the T-cycle operates centrally within the two left-hand (LH) quadrants, the four perspectives to be found there can be used to deepen our understanding both of the model and of the phenomena with which it deals. A careful analysis of the model suggests that it deals most centrally with three of them. These are:

- the external view of social collectives,
- the shared inner world of social collectives, and
- the unique inner world of the individual.

These are indicated in Fig. 3. They lead us, respectively, into the following areas of enquiry:

1. Cultural anthropology, neo-structuralism, archaeology and genealogy.
2. Hermeneutics, collaborative enquiry and epistemology.
3. Phenomenology, introspection, meditation and the deep understanding of the waves, lines, streams, stages and states that together define inner human existence.

At first this may seem distant from FS as it has been understood. Yet the breakdowns of meaning referred to in the basic T-cycle refer to structures and discontinuities at the interface of the inner world of individuals and the inner aspects of social worlds. Or, in plain language, such breakdowns are about how unique individuals come to terms with stresses and contradictions in the social context in which they live. Put positively this involves what some have called ‘biographical solutions to systemic contradictions’.

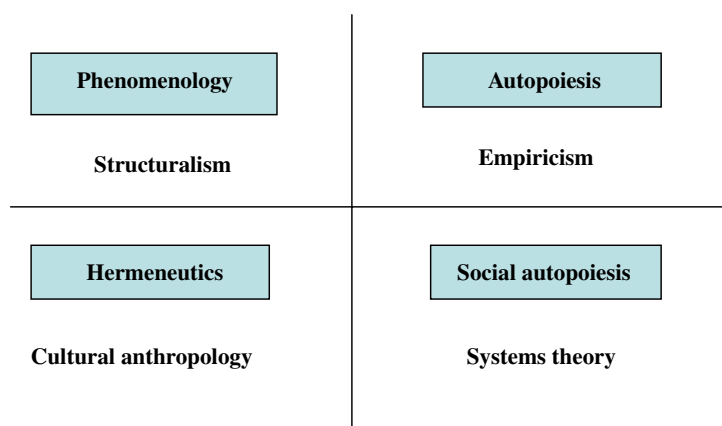


Fig. 3. Eight ‘native perspectives’.

Put negatively (i.e., as a failure of adaptation to circumstances) this is the territory of denial, avoidance, the regression to substitutes, alienation, violence, suicide and terrorism—issues that now figure tragically large in the contemporary world. The T-cycle is only a first step toward mapping the complexities involved, yet that step can be a vital beginning as suggested in Fig. 4.

If we consider the stage of ‘re-conceptualisations’, we can quickly see that the individual’s ability to operate here will be strongly determined by his/her levels of development in each of the relevant lines (not only cognitive but also values, self-image, communicative competence and so on). To put the matter at its simplest, pre-conventional responses are driven by basic ego and survival instincts. Conventional responses (that equate to the bulk of conventional planning and unsophisticated, or what I call, ‘pop futures’) merely re-shuffle the pre-existing elements in routine ways. It is only through *vertical* shifts to the realm of post-conventional insight and capability that we can expect to see the truly new, the novel and the extraordinary. The key point is this: the integral perspective throws a challenging new light upon all practitioners, bringing into focus the adequacy (or otherwise) of our/their own individual development. In a nutshell: conventional work always leads to conventional results and tends therefore to be self-defeating. Post-conventional work points forward and away from these limitations.

When we come to the stage of conflict and negotiation we are clearly dealing with the interface between the inner and outer aspects of the social collective realm. I would say that it is, in fact, impossible (or, if not impossible, then fruitless) to be constructively engaged here without a deep understanding of, and grounding in, both worlds of reference. Here is where the hermeneutic interest in negotiating the shared inner worlds of collectives is central. It is fascinating to note that while hermeneutics was once portrayed by some as an esoteric (and therefore problematic and dispensable) component of CFS, it is now revealed as a structurally vital part of a wider integral frame.

Finally, the selective legitimation of new social arrangements (social innovations, conceptions of ‘sustainability’, multiculturalism, etc.) pitches us right into the heartland territory of social construction theory and practice. This is the crucible in which social sanction is given or withheld, in which some projects wither and die while others develop and flourish. If the practitioner finds the area ‘too theoretical’, ‘too challenging’ or ‘too deep’ then he or she probably ought not be operating here at all. Issues of social interests, social power, who gets to define and who gets excluded have all emerged as central issues. Where these are not seriously and consciously engaged, futures work regresses toward self-indulgent play and the mirrors of endless self-deception, disconnected from the worlds of reference of real people and dynamically evolving societies and cultures.

To summarise, the T-cycle is not, by any means, a model of social change but it does provide a way of gaining some fairly profound insights into *some* of the processes involved. It throws light on areas that would-be innovators can usefully consider to increase their chances of success. In the integral context the model also points back to those substantive areas of knowledge and enquiry through which practitioners can deepen their understanding of (and immersion in) complex social phenomena. This provides both a challenge and a rich

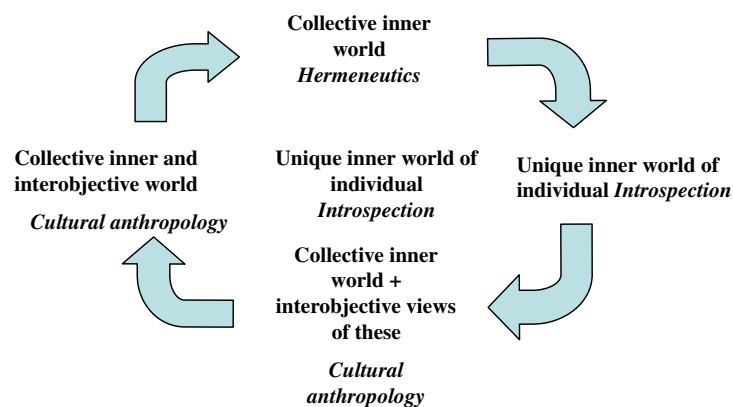


Fig. 4. T-cycle and ‘native perspectives’.

opportunity to the futures/foresight profession to collectively up-grade its human and methodological capacities.

2.3. *Causal layered analysis (CLA) [11]*

The story of how CLA emerged from a critical futures perspective has been well told by Ramos and will not be reiterated here [12, p. 521]. What I will do, however, is review the method from an integral point of view to see where its limitations may lie and how an integral approach may address—and perhaps go beyond—them.

CLA views the world through four distinct levels, as follows.

1. The litany (conventional perception and understanding of empirical reality, which is visible and obvious and hence seldom questioned).
2. Social causes/ system (social, economic, cultural, political and historical factors; the site of conventional 'system maintenance' work; also largely unquestioned).
3. Worldview (framework of values, assumptions, meanings etc that legitimate and sustain social relationships, expressions of power and preferred modes of knowing and being).
4. Myth and metaphor (deep stories and collective archetypes that can be deeply felt but are not necessarily available to conscious understanding or control).

According to Inayatullah the method has the following benefits. It

- expands the range of richness of scenarios;
- ...leads to the inclusion of different ways of knowing;
- incorporates non-textual and poetic/artistic expression;
- layers participant's expression (s);
- moves the debate beyond the superficial and obvious to the deeper and marginal;
- allows for a range of transformative actions;
- leads to policy actions informed by alternative layers of analysis; and
- reinstates the vertical in social analysis [11, p. 816].

There can be no doubt at all that CLA has proved to be one of the most innovative and useful methods to have recently emerged in FS. It has been taken up not only in various university programs and post-graduate thesis, but also in a variety of civic and commercial environments. CLA brings a refreshing sense of 'depth possibility' and rich conceptualisation to even the most banal and apparently simple questions. While it may occasionally challenge those unused to thinking in such categories, it is easily learned and readily applied by most people. Its originality lies in this combination of an 'invitation to depth and difference' with readily learned pro-forma approach. As such it has assisted many people to uncover aspects of social and futures issues that would not otherwise have been possible.

Yet the success of any method brings with it a temptation to reify and over-claim, so regular re-assessments are needed. Over time, new methods pass through several stages such as: being initiated, trialled, critiqued, extended and legitimated, not uncommonly leading to broad acceptance and a kind of unthinking and non-critical orthodoxy. What can easily be lost sight of is that we are in fact dealing with delicate provisional structures of value and perception that are also symbolic processes. As such they are 'slippery' and insubstantial. Seen in this light it is easy to see how that, over time, a dialectic is played out between establishment and legitimation on one hand and evolution and change on the other. It is in this spirit that this account is written. I will here cover three key issues based on claims for the method that have been put forward [4]. They are

1. The claim that CLA is systematic,
2. The claim that it adequately represents depth,
3. The claim that it 'unpacks individual perspectives'.

2.4. Is CLA systematic?

When one first encounters a new method like this one, it is usual to experience a surge of insight and energy, or several. With those experiences come the tendency to explore and use the new discovery without too much further thought and perhaps to over-claim on its behalf. There are many ways to assess if CLA is systematic, but the one I have used here is to look at how each of the four stages manifests on the four quadrants. Table 4 summarises the results.

As noted above, the litany layer evokes shared and largely unproblematic aspects of the empirically visible world. As such it engages the LR quadrant most fully and, to a lesser extent, the LL and UR. Social causes quite clearly engage the LL and the LR. Worldview and discourse are shared invisible parts of the LL; equally myth and metaphor are portrayed as deeper aspects of this same quadrant. So to total up which quadrants that are evoked in these four ways, we get: UR 1; LR 1; LL 4 and UL 0. In other words, like the first example given above, the UL (interior individual) quadrant does not appear at all, whereas the LL (interior collective) quadrant appears in each case. This is a hint that the method may not be systematic. By highlighting the role of the LL to the exclusion of the UL, it demonstrates what may be called ‘quadrant absolutism’ or, in plain language, stresses the collective to the detriment of the individual interiors.

Now of course views can differ about this analysis. It can be argued, for example, that the UL is evoked on each and every occasion, and this is correct. But it is also the case that the four layers of CLA do not, in any way, do justice to the critically significant structures to be found in the UL and, to this extent, it cannot be considered systematic.

A strength of the CLA is that it recognises and brings into play different traditions of enquiry. That is indeed true, but when Inayatullah suggests that it embraces ‘four complementary traditions—the empirical, the interpretive, the critical and action research’ what first appears as ecumenical breadth becomes, in an integral view, a rather less comprehensive selection of supporting disciplines. This returns us to the ‘eight basic perspectives’ in Fig. 4 which are straightforward in one sense and not in others. In the former case the eight perspectives represent the ‘inner’ and ‘outer’ aspects of each quadrant. For example, in the UL the view from the inside of this domain is covered by phenomenology (or what my world looks and feels like to me alone). The view from the outside of this domain is provided by structuralism. In the LL the ‘inside’ view of culture (what its like to share and live in one) is given by hermeneutics, whereas the ‘outside’ view (how you can study the cultures of others) is given by cultural anthropology. Thus, what the more detailed perspective provided by IMP provides is *eight* specific clusters of pre-existing disciplines and discipline areas to work with and select from for any particular use. If taken up and applied the inclusion of these areas will clearly expand the framework of the method. Clearly, therefore, this wider range of options brings CLA closer to being systematic than the early formulations of did.

2.5. Does CLA adequately represent depth?

The answer here, I think, is fairly clear: ‘yes’ (for simple workshop uses) and ‘no’ (for more demanding uses, such as advanced research and enquiry). So care is needed for any particular application. Much turns on what we mean by ‘depth’. Is the latter to be associated with, e.g., clarity, significance, profundity, usefulness etc.? What I think is meant in the CLA context is something like ‘progressively more substantial and shaping influences’. That is certainly how I saw my own original nomenclature as it was applied to FS: pop futures,

Table 4
Four-quadrant tabulation of the CLA stages

	UL	UR	LL	LR
Litany	0	X	X	X
Social causes	0	0	X	X
Worldview	0	0	X	0
Myth/metaphor	0	0	X	0
Totals	0	1	4	2

problem-oriented futures, critical futures and epistemological futures [13]. Those distinctions were, and remain, useful when applied to entities like the futures field. With suitable modifications this general structure also appeared to ‘work’ operationally as a method in a pre-integral period when the shaping significance of the UL had not been clarified and integral methods had yet to emerge. Now, however, our understanding of the meanings of the categories used in CLA have changed, as have the relationships between them. With the integral lens much has become clear that was previously less so. Specifically, within this lens, depth is not viewed as a progression in only one domain (the LL or cultural). It is seen as a characteristic of a series of holons in all the quadrants.

Briefly, a holon is both a whole and a part of something else. The term, derived from Koestler, suggests an ascending (or descending) hierarchy of entities that, so far as humans are concerned, have neither upper nor lower limits: depth has a presently unknowable number of stages both ‘all the way up’ and ‘all the way down’. A simple sequence in the UR is relatively straightforward, e.g., electrons, atoms, DNA, cell structures, cells, organs, organ systems, bodies, etc. Each ‘whole’ is also ‘part’ of a subsequent level of existence. The point is that CLA ‘depth’ and holon ‘depth’ are clearly two very different things. Neither are ‘right’ or ‘wrong’—they are useful for different purposes. There are, however, major problems to confront when we look for depth in the LL (cultural) quadrant where CLA is arguably grounded. Here the depth of a social holon is related to the potential depth of its members, and greater breadth (numbers of individuals) implies less depth. This profoundly changes what we mean by ‘depth’ in this domain. Equally, in overlooking the role of depth in the UL (individual interior) domain, the method overlooks some of the key dynamics operating there. (See the paper by Chris Riedy in this issue.)

What the CLA does do, and does so very well for many practical purposes, is to represent ‘depth’ to the enquiring mind in an useful and accessible way. What it cannot do, and was not designed to do, is to represent ‘depth’ in any of its more profound meanings; the meanings that emerge from holon theory and the expanded integral frame. In fact by sampling the worlds of reference that can be accessed through the quadrants in an unsystematic way, it covers *some* of the bases for intelligent social enquiry, but by no means all of them. The ‘depth’ dimension in the CLA is therefore useful in introducing people to one kind of journey of enquiry and discovery but its tendency to reification means that the original model has thus far tended to be ‘locked in place’ rather than being seen as a selection from a much wider range of options. For example, with reference to Fig. 4 one could plot ‘alternative CLA pathways’ through phenomenology and structuralism to autopoiesis and empiricism; from here to social autopoiesis and systems theory, and from there to hermeneutics and cultural anthropology. Such a journey, while undoubtedly more challenging, and requiring a somewhat wider range of knowledge, would be both more integral and also much deeper. Or, on the other hand, one could travel the ‘interior journey right round’, or the ‘external’ journey, or clearly there are many choices. What the CLA has going for it at present is that it is in wide use and remains a useful starting point.

2.6. Does CLA ‘unpack’ individual perspectives?

I think the answer here also has, in the main, to be ‘no’. What the CLA *can* do is to provide some starting points for developing insight into individuals by posing generative questions that arise at each of its four levels. But, as currently formulated, it cannot go much further because, as we saw above it is mainly not ‘about’ the UL; its key focus is the LL.

One of the central insights to emerge from IF, in fact, is that it is the level of development of the practitioner that determines how well or badly any particular method will be used [14, pp. 152–166]. Being mainly focused on the LL, CLA has little to say about the human interiors. Yet the integral approach suggests that the detailed developmental structures of the UL contain many of the keys to successful practice. The various lines of development (that each refer to different human qualities and capacities such as cognitive, self-sense, morals, needs and values), the various stages that can be reached along these lines and, indeed, the states of consciousness that evoke the above turn out to be fundamental. This was demonstrated by Peter Hayward who employed Jane Loevinger’s stage development theory to show how ‘the organisational capability to consider future implications (of foresight projects etc) is synonymous with the individual capability of people in that organisation to do that very same thing’ [15, pp. 4–8].

Hayward explored some implications of the role of moral thought in organisations. He argued that ‘no sustainable change to the organisational stance towards foresight research is possible unless there is adequate moral development in the individuals of that organisation’. Thus far he identified conventional stages of human development that correlate well with conventional FS. In the next step he identified the transition that occurs in the shift from formal to post-formal foresight. Loevinger’s focus here was on what she called the autonomous stage at which individuals ‘can now cope with the inner conflict; they can accept the inherent contradictions in life and just get on with things. What were seen as ‘opposites’ at the earlier stages is now recognised as complexity’. Tantalisingly, Loevinger hypothesised yet another stage that she termed ‘Integrated’ in which conflicts are transcended and polarities reconciled. The conclusion is clear. Questions of human developmental stages, of the development of higher order moral, cognitive and other capabilities are central to understanding and dealing with not only the global problematique but also greatly improving the depth and scope of any methodology at all.

As central (and complex) as all this appears, there is again a very straightforward way of cutting to the heart of the matter, and that is to return to the difference between pre-conventional, conventional and post-conventional modes of human operation that were mentioned above. In brief, the former applies when we are children, students, aspirants in any context, when we are ‘learning the ropes’ or learning to be competent. To reach the stage of being conventional is an achievement. It means that we have learned enough to ‘fit in’ and to be a normal, responsible, member of the group, the professional or the society. There is magic, however, in moving to the next stage—that of operating post-conventionally. It means that we see all around us as constructed and provisional, as much more open and malleable than a settled and conventional view can possibly permit. Its here, therefore, that the ‘best’ work in any field waits to be done and its here that most originality, creativity and useful innovations lie. At best the CLA is a part of a *preparation* for post-conventional inspiration and work. But because it does not deal explicitly with the structures and processes of interior human development, it cannot do more than suggest some of the starting points.

What, therefore, does the integral approach offer to the CLA and future CLA-type approaches? It

- presents a larger canvas through which to become more systematic;
- offers notions of depth associated with a holonic view of the universe;
- corrects for a tendency toward quadrant absolutism (privileging the LL);
- un-freezes the method for further development, and
- greatly expands the range of options for study, research, workshopping and problem solving.

The original version of the CLA is suggestive of the human perception of light—a narrow band on a much wider spectrum. It is of undoubted value. The main danger to overcome is to prevent it settling into the pattern that it originally took and becoming reified, stuck, in that rather restrictive mould. A productive way forward is to acknowledge this and to open it out in some of the ways suggested here so that, in the end, there is no single authoritative version, but a whole family of CLAs heading out in the many different directions dictated by an ever wider array of potential uses.

3. Environmental scanning (ES)

In earlier times ES was seen as an activity based on fairly straightforward methods for (a) detecting signals from the environment, (b) outlining organisational implications and (c) feeding these into a decision-making process. It was sometimes described as a ‘front end’ technique that alerted organisations to external changes and provided time for strategic responses to be developed. One of the most accessible models was developed by Burt Nanus and marketed by him and others under the heading of QUEST (or quick environmental scanning technique (QUEST) [16]. It used a combination of simple scenarios and the cross impact matrix to model the near-future environment and then test a variety of subsequent actions (strategic options) that could ensue. As a straightforward way of applying the approach it worked well [17].

Table 5 provides a general overview of the method as seen during the mid-1980s. The key to ‘good’ scanning practice was the careful construction of a ‘scanning frame’, i.e., a device for sorting, sifting and paring down the multitude of daily ‘signals’ into a useable form and format that could be used to inform management

Table 5
Environmental scanning in 1980s

(A) *The objective of scanning*

to look over the widest range of possible factors and to identify connections with the organisation's function or business, and especially to identify the significant positive or negative effects those could have on the organisation and its activities

(B) *Key questions*

- Why am I scanning?
- What am I scanning?
- What constitutes a useful scanning frame?
- What human and tech support needed?
- Who will use the results?
- What will results be used for?
- How will results be made available?
- What long-term record keeping is needed?
- How will costs and benefits be assessed?

(C) *Types of indicators*

- Lone signals
- Statistical descriptions
- Reports of landmark events
- Forecasts, conjectures, speculations

(D) *Scanning resources*

- People, active networking
- Journals, magazines, newspapers
- Fringe literature, scientific reports
- Data bases and scanning services

(E) *Passive and active scanning*

Passive: Informal, undirected, unconsciously biased and lacking clear criteria. *Active:* Focused on particular resources, systematic and employing carefully chosen criteria [18]

decisions. As time went by so approaches to ES became more sophisticated and increasingly used by large companies and even by some government departments. In this guise ES became linked to 'competitive intelligence' by practitioners such as Ben Gilad and taken into management theory via 'information management' by writers like Chun Wei Choo [19,20, pp. 7–16].

So far so good. What had again been overlooked, however, was that the world 'out there' is framed, conditioned and mediated by the world 'in here'. I drew attention to this in a series of papers including one that proposed a 'new framework for environmental scanning' using the four quadrant model which suggested that both 'inner' and 'outer' factors could be considered equally [21]. Joseph Voros subsequently took this a stage further and developed a notation method for clarifying the 'filters' at work in the minds of scanners. He writes that 'in addition to opening up the viewspace being viewed, one needs also to understand the extent and the scope of the 'mindspace' of the scanner doing the viewing, and to take conscious steps to open *it* up' [20, p. 4]. What was needed were 'models of human consciousness' that would help to reveal the filters that were operating in the scanners' mind. 'Informed by this one would then seek to become aware of the potential blind spots we might possess as scanners'. The next step was to

factor these insights into a scanning praxis so as to minimise the 'scanning blindness' of the scanning team. In this way a team effort of diverse scanners consciously reflecting on their preferred mind sets, and taking steps to broaden their views, is less likely to miss critical signals than a homogeneous group...who are unaware of their own potential blind spots [20, p. 4]...

If it is to be other than an exercise of the 'blind leading the blind', ES is an activity that *requires* a profound appreciation of human and cultural interiors. As Voros says, 'scanning the environment...depends very much on the eye of the beholder...What that eye sees is conditioned by what lies behind the eye of the beholder, in

the interior consciousness of the perceiving subject'. This shift from what might be called empirical, or 'environmentally driven' ES, to a more balanced approach that recognises the powerful role of subjective and perceptual factors was documented in 2003. Since then a number of practitioners around the world have started to use the new approach so that what are currently emerging are new ways of understanding ES and applying it in the world.

4. Conclusion

4.1. Wider implications

This journey through five different futures methods has demonstrated some of the methodological implications of the expanded integral frame. First, earlier methods are re-contextualised, refreshed and brought up to date. Integral 'maps of the future', scenarios, T-cycles, the CLA exercises and approaches to environmental scanning all become significantly more discriminating and productive. This is because, second, they each have become open not only to the significance of the human and social interiors, they are also informed by much clearer and sharper understandings of the structures and processes found there (lines, levels, stages and states of development) that involve a series of vertical discriminations. As noted above, 'those focusing only on exterior solutions are contributing to the problem' [2]. This may be a hard lesson to learn for the empirically inclined doggedly pursuing their RH quadrant concerns, but the fact remains that a vast amount of well-intentioned work falls into this category. It is time to move on.

In an earlier paper I summarised some of the advances that the integral approach prefigured. These were grouped under the following headings:

- cultural diagnosis and renewed 'world story',
- critique of (earlier) systems theory, ecology, chaos theory and FS,
- re-defining the central purposes of FS and
- re-defining the path ahead [22].

I suggested there that 'the most interesting futures are those in which human and social evolution matches that of scientific and technological development'. Nearly a decade on that view has deepened but not materially changed. What has occurred in the meantime, however, is that the human species has moved even closer to the edge [23]. Broadly speaking, it is still failing to comprehend and deal with its own underlying condition, its growing exposure to natural and human-initiated hazards, its careless trashing of what might be called the 'library of nature' (otherwise known as the 'sixth extinction') [16].

If the futures field had lived up to its earlier promise it would, by now, be an influential and sought-after contributor to high-level dialogue, policy-making, education, governance, etc. across the whole wide world. That it has so far *not* reached this level of acceptance and mainstream application clearly shows that top decision makers across the board neither take it seriously nor heed its warnings and suggestions. We have to conclude that so far as the currently dominant social formations are concerned FS has yet to emerge as a vibrant and useful entity.

This is a signal—if such were needed—that the time is overdue for a more well-grounded, powerfully equipped, clear-eyed and fearless generation of practitioners to emerge and carry the field forward. In doing so they will certainly want to pay their respects to the early pioneers for their work and their contributions. But they will also want to move on, using not only the reinvigorated methods sampled here but also new ones that are beginning to emerge. They will work more effectively to help humanity respond to its predicament.

I started by saying that at present it is all-too-easy to see the deteriorating global picture as a 'civilisational end game', a descent into dystopia. But there is another possibility. If enough people 'wake up' to the dangers (and opportunities) facing humanity; if enough are prepared to discard the fallacies and lies of global marketing and peer beyond the electronic veil that stands between us and the natural world; if enough begin to clearly perceive that, after several billion years of evolution, the human experiment could be close to ending then it may just be that they will stimulate the discovery of new and renewed forms of motivation and purpose that imply very different future worlds. It was EF Schumacher who suggested that at the human level there is

no upper limit [24]. Three decades ago that seemed a useful insight, but little more. How times have changed! In the light of the map sketched out through developmental stages in the UL it takes on quite new meaning. Pathways that lead away from dystopian futures absolutely *require* vertical moves toward greater clarity, integration, value and purpose, and futurists/foresight practitioners of all kinds need all the help they can get in making these changes.

The central significance of the integral phase in FS is that instead of looking for solutions in the wrong places (the isolated LR, the ‘rational’ ego, the current model of ‘wild’ globalisation), we can begin looking for them in the right places. What the field has to learn, and learn fast, is that uneven and modest levels of human and cultural development, allied with powerful technologies do indeed lead directly to unliveable ‘overshoot and collapse’ futures. Despite the weight of expectation placed upon them, the keys to liveable futures cannot be found in earlier approaches to scenario building, pop futuristic diversions, the Internet or corporate boardrooms. They lie in human and cultural development, and in the maps that provide access to the shaping power of these widely overlooked domains.

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