

# A Meta-Analysis of Recent Futures Research

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## Abstract

This research report, the first of two, attempts to develop an academically rigorous overview of the nature and features of publicly available, peer-reviewed, futures research. A review of the rationale for this research and an overview of previous futures research summaries are provided. This leads to the identification of some broad elements that need to be included in any robust map of the development of futures research knowledge. These in turn, cast through an integral approach, frame the justification of a 'meta-scanning framework' which is used to analyse a selection of articles from a small sampling of issues of peer-reviewed futures research journals. A number of provisional hypotheses are developed about the nature of recent futures research in each journal reviewed, with the view to their being tested through discussion with leading futurists and discussed in depth in a second, companion, report.

## Getting Orientated

*"There is a dearth of basic research in futures today, and the field may be suffering for it. Perhaps we are all spending so much time practicing, that we haven't spent enough time theorizing and researching."*

Richard A. K. Lum

As a student of futures studies I have explored several paths in my quest for knowledge about how to know about the future. In the third year of a Masters in Strategic Foresight, one in particular has cropped up again and again: what futures research has been done before? There are plenty of books extolling the virtues of, or providing the how-to's for, various methods. There are numerous publications summarising futures studies of a wide range of quality and type. There are many others arguing the need for futures research in both general and specific contexts. And yet, there are few that characterise the actual research of the futures field. Of those works that do, in some manner, review the state of futures research, I am not aware of any that provide an academically rigorous overview of the field as a whole, either in its past or present. There are descriptions of the field's development, epistemological treatises, and numerous important name-calling debates. There seems, to the point, little referred *research on futures research* itself.

The vast majority of futures discourse publications centre around reviews, highlights, and general discussions on innumerable themes. The World Future Society's "Future Survey" for example publishes 'a monthly abstract of books, articles, and reports concerning forecasts, trends, and ideas about the future.'<sup>1</sup> It is not, however, disciplined academic research. There is no stated critical frame of reference for the selection of the items reviewed. There is very little analysis. And, the regular list is the result of one editor's selection rather than the results from a peer-reviewed style process. Further, it does not attempt to provide any real overview or synthesis. Rather its 'synthesis' section is a collection of one line introductions. No analysis – and scant connections – are drawn between the materials surveyed. This does not, however, dispute the utility of such a publication. The fact it has been around for several decades attests to its popularity! The proliferation of e-zines, futures web-links portals, practitioner websites full of interesting articles, and seemingly endless web-links to more, and the past decades publishing of Wendell Bell's Foundations of Futures Studies and Richard Slaughter's (Ed) Knowledge Base of Futures Studies attests to the fact that the futures discourse, at the very least, covers a huge territory and there is much to talk about.

What the futures discourse does not appear to have is enough critically rigorous analyses of the futures research that has been undertaken. There are many possible reasons why. One, most obvious reason, is that it would be a daunting task! With journals, surveys, newsletters, and magazines that span several decades, books upon reports upon analyses, plus the more recent explosion in online content, it would be a resource and logistical Mt Everest to climb. That's not to say it could not or should not be attempted. Indeed, Mt Everest has been climbed many times. It's just that without serious institutional support (and such has been notoriously hard to come by for futurists), and a sufficient motivation (whose nature and whereabouts are presently unknown), such research is unlikely to even get started. For representing a touch of the former and ample of the latter, Future Survey's effort, rigorous or not, is truly unique and praiseworthy.

A second reason for the lack of research on research, and possibly in part explaining the first, is that there seems to be a general consensus that a large majority of futures research is conducted for paying clients. It is hidden behind the clouds that make the revealed mountain peak so impressive. Futures research may or may not be expensive, depending on your point of comparison, but academic institutions have rarely supported it, and thus it has occurred mostly behind commercial-in-confidence agreements. This in turn generates little incentive to relate futures research to the greater discourse of previous work in an academically rigorous way. 'And besides,' a consultant might say, 'there's little available that's directly relevant to my situation and my approach is quite different at any rate.'

A third reason, in contrast to the second and yet compounding the first, is that there has been, over the past decade or so, an explosion in the quantity of futures research being produced and made publicly available, especially online. While not always produced by futurists (a definition for which the debate seems to still be wide open), the recognition of the increasing complexity of human activities and influences thereon, has led to many government departments, independent institutes and agencies, other NGOs, and even the United Nations, producing voluminous reports covering the full gamut of any futurist's quality criteria. (Given recent advertising and business literature use of the terms the 'future' and 'foresight,' one might even hazard a fleeting presumption that some sort of conception of the future is in fashion again.) This expansive diversity of futures research activity means there is likely too many mountain ranges for one intrepid researcher of futures research to cover in a single, unsupported, expedition.

While many other reasons could be found – and some may point to previous efforts to characterise the body of futures research that are publicly available – without a serious attempt at an overview a new consultant, student, or academic of futures studies would have little real perspective on whether their futures research services offering is a) simply replicating existing efforts or b) potentially building on the lessons and research gone before. To surmount these difficulties is important. Not just for the curiosity of the budding researcher, but also for the field as a whole. Where the next mountaineers cut their path determines, to a large degree, whether the field can be located on one map, whether the field actually progresses, and importantly, whether the field can actually be understood by new comers and outsiders. Indeed, it may be considered foundational to the field's existence in the first place.

This report then is the first step in an attempt to develop a coherent and academically rigorous overview of previous futures research. Without institutional support it will not attempt to climb the Mt Everest of materials, nor sweep across the many mountain ranges that lead up to it, rather it will take a flight over one particular mountain, and like a cartographer, trace some of the important contributing ridge lines. The motivation is a simple one, to start to generate a quality map, if only in outline form, that can offer futures researchers a general guide of the terrain already covered and how it was explored. This map, in turn it is hoped, will be useful enough that others might refine it, add more detail, and get it into the hands of those adventuring, for the first time, into the wilderness of futures research.

## Views from the Mountain Top: A Literature Review

*"Futures research...is the most rigorously disciplined part of futurology."*

Pentti Malaska<sup>2</sup>

In order to develop a useful map, one must first know the territory in question. Likely one of the best places to start is to review how it has been previously navigated. What is considered futures research? What classifications have been used to describe it? How are judgments formed about the nature of futures research? Thankfully, this aspect of the territory has already been surveyed several times.

### **Knowledge**

Over two decades ago Richard Slaughter set out a continuum of futures activities that ranged from grounded futures research, through more general futures studies, to the broader generative futures movement.<sup>3</sup> The republishing of this approach at the turn of the century recognises that there is no real, commonly accepted, definition of what futures research is. An informal general consensus? Perhaps. But clearly defined categories, with ground rules for what's in, and what's out, apparently not. Slaughter's approach emphasises the difference between 'research' as focusing on knowledge generation, 'studies' as being about its communication, and the 'movement' as being a normative approach to change activities. Now, futurists may find this separation redundant as many of their activities can integrate aspects of each category, but as an abstract spectrum it may still hold some value in generating distinctions about the field's activities.

This approach does not, however, lead directly into a designation of what futures research actually is. Clearly, it generates new knowledge. But what constitutes this knowledge? Again Slaughter has something to offer. He has outlined a 'model of the core of futures studies,' or the conceptual categories that form a 'knowledge base' for the futures field. The model identifies six distinct layers:<sup>4</sup>

1. Language, concepts, and metaphors;
2. Theories, ideas, and images;
3. Literature;
4. Organisations, networks, and practitioners;
5. Methodologies and tools; and,
6. Social movements and innovations.

These categories of the core of the futures field highlight the constituent aspects of, what is referred to in this paper as, the 'futures discourse.' In many regards the six core layers are abstract enough categories that they could reasonably be applied to most fields of study, with only minor variations. Following on from this observation it is arguable that many other disciplines, certainly those closely aligned with the futures discourse such as sociology, place a significant emphasis on the literature category as the compendium of their knowledge base: their subjects' research. It is through the literature that the progression of a field, in its myriad ways, is stimulated, drawn together, and tracked over time. They are the mountain ridges that guide every explorer of the common terrain; that each researcher contributes to, builds on, and checks back in with on a regular basis. So what does Slaughter have to say about the literature category of the futures discourse?

### ***Literature***

Slaughter highlights three key aspects of futures literature: key books by futurists, works of speculative fiction, and research journals. While he recognises the "key role" that journals play in the futures field, many other disciplines regard their journals as the touchstone, their compass, the bedrock that their research is built on. It appears that the futures field itself, while having many publications, has not evolved this same regard for its journals. Rather they are more an open space of proposition, critique, and discussion, and cohere in the sense that they provide a common forum. While the reasons for this are relevant to this paper, they are slightly removed from its scope. Suffice to say, any investigation into this aspect of the field would usefully highlight the connection between the nature of the field and the functional role that the journals have evolved to fulfil. Thus what may be considered the more open, explorative, and creative nature of their content, in comparison to the journals of similar disciplines, would likely be justified.

The journals are, however, billed as subjecting their research contributions to peer-review. In this regard they are the same as many other disciplines. As a result they are the primary source that 'outsiders' and new futures explorers may look to when evaluating the disciplinary nature of the futures field: the who, how, what, and why of its development. This is an important point. Take, for example, Wayne I. Boucher's review in 2000 of the apparent lack of progress in futures research.<sup>5</sup> Boucher cites his 1977 research agenda for the field and notes its complete absence in a 1989 update, and implies that both have since been significantly forgotten. Provocatively, and with lament, Boucher posed the following questions about the futures field to any practitioner who would listen: "Has learning occurred since its origins in the 1960s? Has it been cumulative?"

In the dualistic debate immediately promoted by these questions, it would be fair to say that Boucher may come down closer to the position of no, or at least, not enough. Who then, might take the opposite position? In addition, is there, as with any good rational thesis and antithesis, a worthy synthesis? Or is there, at the very least, a new path forward suggested for understanding the development of knowledge through futures research?

### ***The quest for development***

There are many offerings to draw on that might be relevant. One vein of the futures discourse landscape that seems particularly relevant is accounts of the field's development as a whole. One relatively recent approach, out of many possible contenders (that also sheds light on the nature of the knowledge generated by futures research), is Peter Hayward's classification of eight 'worldviews of foresight: mythical, immortal, revelatory, progressive, political, critical, consensus and integral.'<sup>6</sup> Based on the work of Jean Gebser, Hayward outlines the contours of the cultural worldviews; the complexity of their generative thinking capacities that have marked the evolution of the futures terrain. Hayward shows how these different worldviews have emerged and depicts the different qualities of the knowledge generated by them as well as highlighting the methodological implications.

The central theme of Hayward's map of the field's development, which offers the most direct counter argument to Boucher, is that the emergence of each different worldview of foresight has involved a process of transcend and include and critique: or TIC for short.<sup>7</sup> That is, each new development in the futures discourse has first critiqued, before including, and then transcending in advantageous ways, the proceeding contributions. TIC-ing off previous efforts, so to speak, in the development of new knowledge.

The central theme of Boucher's lament is one of continuity: 'has the field actually built on previous efforts?' In our possibly faux opposing camp, the same theme is in play: 'look, see how the field has built on previous efforts!' For both futurists, the focus is on identifying a pattern of continuity. The reason for the different

readings of the futures field's research knowledge development, it appears, has to do with the level of the terrain that the analyses focus on. In terms of say, *surface features*, the changing terms and topics of focus, Boucher sees little continuity. And yet at the deeper, say *structural foundations*, Hayward presents that there has been continuity. The important difference in these levels of analysis seems to be with the *depth of development* being mapped. One is looking to the shifting water courses, and seasonal snow drifts, while the other is looking at the slow moving bedrock, the structure that supports the surface changes.

Given the difference between the two positions, are there other maps that might be useful in outlining the contours of futures research knowledge development? Can they perhaps resolve the issue of different levels of analysis? And, while we're looking for a better map, are they also categorically clear, and leave room for the integration of different maps of varying levels of detail?

### **Maps of development**

There are several other approaches to classifying the futures field's knowledge development and research. Upon review, however, some of these are problematic, or less rigorous, than Hayward's and yet they highlight important features of the nature of the knowledge generated by futures research.

To start with, Sohail Inayatullah's approaches at classification, while incorporating great complexity in simplified forms, are, from the western worldview of logical categories, often quite confused. He often mixes the *stream of end purposes* with the *stream of methods* and/or paradigms of approach. For example, in describing the futures field as moving "from single point forecasting (accurate and precise predictions) to scenario planning (alternative futures)....," which are both *methods*, Inayatullah switches streams and continues "...to foresight (institutional capacity building) to creating a future-oriented organization, a learning/knowledge organization," which both address *end-purposes*.<sup>8</sup> This can be contrasted, for example, with Slaughter's definition of the transition as moving from "forecasting and scenarios to social construction" as a broad classification of "changing methodologies."<sup>9</sup> The problem here is that the various methods from the earlier stages of development could be applied to achieve the end purposes that Inayatullah proposes go beyond them. Thus while some of Inayatullah's classifications may be useful – and certainly in practical situations they intuitively assist people in grasping the breadth of the futures field – they are of little assistance when attempting to clearly outline an academically rigorous overview of the field. The schema of methodological development, however, is an important one. Indeed, it has often been the focus of the futures discourse characterisations of itself, and thus deserves to be carefully included in any map of the futures research knowledge terrain.

In a similar way, Masini and Linstone's famous yet simple account of modern futures studies tracks its spread from technical ("issues of nuclear war, technology and policy impact, and the details of forecasting methodology") to organisational ("more effective, learning organisations") to personal application domains ("inner transformation, the ecological movement").<sup>10</sup> In the process they make the same type of category error as Inayatullah when they connect the *stream of topics of application* with the *stream of methods* characteristic of engagement with them. While tracing the emergence of the different methods in relationship to the different aspects of the surface terrain being explored rings true, and is justified because it records the paths of pioneering futurist explorers, it is combining two different types of development. This is not a problem until, such as with this paper, one is trying to develop a clear overview of the terrain and its development. Again, the methods that have become available for exploring different topical features of the terrain might well be used in any of the others, and might have been developed in any of them – eventually.<sup>11</sup> Both are important streams of development in the exploration of the futures terrain, but they are categorically different. In addition, neither stream, in identifying various topical features of the terrain, and their methodological paths of exploration, grants access to the deeper structures of future knowledge development; the shaping foundations of the territory.

In contrast, a related approach by Slaughter identifies four broad, *structural levels* of social interest that futures studies has been observed to serve. Emerging in a sequential fashion, Slaughter characterises the four levels as popular (the litany of entertaining notions), pragmatic (doing what we do better), progressive (changing what we do by including and respecting more of reality) and civilisational (working towards a whole new level of human endeavour).<sup>12</sup> This is a deep structure classification. Each structural level may hold different methods, topic areas of application, and more restrictively defined end-purposes within its application. This is a real terrain contour that can contain many, changing surface features.

Involving a lack of explicit categorical clarity, Wendell Bell's accessible modern history of the futures field starts with a courteous nod to antiquity and the labour pains of the modern western worldview. Bell then critically tracks, through a biographical and institutional situational appreciation, the various forms of futurist



activity throughout the entire 20<sup>th</sup> century. The emphasis is on the epistemological assumptions, related preferred methods of knowledge generation, and commonly associated types of end purposes.<sup>13</sup> While an engaging read, and a rich pathway into understanding the development of the futures field and the kinds of knowledge it generates, it is not directly useful for generating a clear map of the territory. In fairness, it never purported to do so. The topographical richness seen by each pioneering explorer, and summarised by Bell, does deserve to be included, though, in any quality map of the terrain.

In contrast, Amara's widely adopted classification of 'possible, probable and preferable' types of futures knowledge (expanded by other futurists to include 'plausible' and 'potential') is mapping an altogether different aspect of the futures terrain.<sup>14</sup> It appears to be a classification of the *types of futures research knowledge*; potentially from any developmental era of practice, by various methods, suiting numerous end purposes, and in any of the topics areas of application. This typology is an important feature for including in any map of futures research knowledge development. It is, however, more of a surface feature variable rather than a structural bedrock feature.

Yet another approach by Slaughter to mapping the field's types of knowledge is his stages of social foresight capacity development.<sup>15</sup> Slaughter has identified four structural levels that constitute the development of a social capacity for foresight. Reflecting aspects of his 'core of futures studies' knowledge, outlined earlier, the stages are:

1. "Futures concepts and ideas [that] enable a futures discourse;"
2. "Futures tools and methodologies [that] increase analytical power;"
3. "Futures processes, projects and structures [become] embodied in [a] variety of applications;" (which generate, in particular, practice knowledge and leads to broader social awareness) and,
4. "Social capacity for foresight as an emergent property." (Knowledge at this level can be seen in the institutionalisation of the proceeding knowledge types representing social acceptance).<sup>16</sup>

This stage conception is different from the previous ones. First it is, in part, anticipatory, rather than retrospective. Second, while it is not entirely categorically clear, it is usefully focused on the broad social legitimisation of the futures field when cast in terms of knowledge generation. It doesn't necessarily align the previous streams of development. Rather, through correlating another delineation of *knowledge types* with a *stream of congruent end purposes*, it may be an important feature of many streams; a dry creek bed that others can flow through or across.

Finally, the question is still waiting: is there a map that can contain some, if not all, of the various aspects of the futures field's knowledge development? Is a synthesis possible? Does it explain how the different depths of developmental analysis focused on by Boucher and Hayward are related?

### ***The quest for integration***

One of the common approaches to an inclusive map draws on Jurgen Habermas' three knowledge interests: technical, practical, and emancipatory. It has regularly been employed as an explanatory guide to classify the futures field's activities: categorise the research, chart the development of focuses, and justify the integration of the broad sweep of futures interests. See for example Richard Slaughter<sup>17</sup>, Mika Mannermaa,<sup>18</sup> Pentti Malaska,<sup>19</sup> and Sohail Inayatullah<sup>20</sup> among others.

Inayatullah, to take one example of this approach,<sup>21</sup> casts Habermas' interests as three 'overlapping research dimensions.'<sup>22</sup> In this light, Inayatullah depicts them as empirical (factual data often predictive in nature), interpretative (techniques of meaning making) and critical (approaches that situate the other two "in various historical structures of power/knowledge").<sup>23</sup> He notes that these *focus domains* have emerged over time, in the order presented, and, sees them now being more commonly integrated in practice.<sup>24</sup>

It is arguable that the methods relevant to the particular focal domains are indeed specific to them. There is, for example, little use in trying to use only an extrapolative trend technique based on factual data when trying to arrive at rich, multiple, interpretations of cultural understandings. Different methods grant access to different focal domains. So this correlation of categories holds true enough. It also, therefore, provides part of an explanation for the different depths of developmental analysis, and thus the differing results, found by Hayward and Boucher. Boucher's search for continuity can be seen to be relatively confined to the technical focus domain and common methods of application. Hayward, in contrast, situates his analysis in the interpretive domain of focus. The technical domain has been dominated by methods that do not readily lend themselves to developmentally deep grasps of the terrain. They cover a great breadth of the surface, but

rarely dig into the structural bedrock. On the other hand, the interpretative domain has been dominated by methods that drive for the developmental depth, a deep structural view of the terrain's foundations, rather than embracing the breadth of surface features. (It should be noted, however, that each focal domain *could* be explored by both depth and surface approaches alike).

Hayward's analysis of the development of the futures field presents a reasonable antithesis to Boucher's lament, but only when the different focus domains, and methodological tendencies, are acknowledged. Boucher's position still stands within the technical domain. It seems there has been little continuity of development on the shifting surface features of the futures terrain, but there has been continuity in the changes in the bedrock structures of the interpretative domain that situates them. This, it would seem, provides the basis for a synthesis of the positions and developmental views of the terrain. But, in light of the other maps of the futures knowledge terrain, is it enough?

### ***A map of integration***

Each of the developmental views summarised above are undoubtedly important. They have been used by many mountaineers over the years. These maps have been updated, passed around, summarised, or used to guide many an exploration's methodological development. So the injunction is clear: they all need to be included in a good map of futures research knowledge. The real question then, is how.

Despite the relative merits and difficulties in identifying a categorically clear overview of the futures terrain, one thing stands out in this summary of views of the futures knowledge territory: most of them have something to do with development. The second common feature is that there are different streams of development that once they have emerged, can, in most cases, be related to various levels in the other streams of development. These include, to begin with, Hayward's foresight worldviews and Slaughter's stages of social foresight capability. On top of all of these, there are different types of futures knowledge that cut across, yet again, all of the different streams of development that have been traced out, such as Amara's expanded types and Slaughter's types of knowledge. And both the streams and types can be seen from the perspectives of various focal domains and corresponding methodological developments, such as highlighted by Inayatullah's application of Habermas' social interests. Further still, there are likely more than the three topical areas that Masini and Linstone identify, and other related end-purposes, that all of these aspects can be seen within or applied to. And finally, Bell's approach highlights that the topographical richness of actor/institution based idiosyncrasies is another lens that could frame the use of all the other classifications.

How can all of these be accounted for? How can the salient features of all of these developmental histories be incorporated in a classification scheme of the futures field's knowledge that is categorically clear, and thus academically rigorous, and remain a useful explanatory framework?

Most have given up as the task has been too hard, if not impossible. Apparently the nature of the field is something that can not be neatly mapped with any rigor. But what if it could be? It would certainly assist newcomers to gain an overview of the field's development of knowledge, practice, and theory. It would likely significantly contribute to the often wished for social-academic legitimisation. And who knows what other benefits might emerge...

Slaughter, again, has something to offer. Working with Hayward, Joe Voros, Jose Ramos and others at the Australian Foresight Institute (AFI), Slaughter has moved on from pioneering Critical Futures Studies to participating in the emergence of Integral Futures Studies.<sup>25</sup> Drawing on the theoretical frameworks of Ken Wilber, Jean Gebser, Ervin Lazlo, Jurgen Habermas, Clare Graves, and other integral theorists, AFI has been developing meta-approaches to futures knowledge, practice, and theory.

One of the particular applications, using Wilber's "AQAL" meta-theory, shows promise for an integration of each of the various developmental features outlined above. As the various elements of this theoretical approach have been introduced previously in futures journals, the details will not be recounted here.<sup>26</sup> Suffice to say, this author contends that the approach represents a viable synthesis of the Boucher and Hayward positions, and goes beyond it, to offer a viable pathway forward that also enfolds, in a TIC manner, all of the other maps presented above.

The most interesting aspect of this particular integral approach, within the context of this paper, is how it may assist in the generation of a quality map of futures knowledge found in the peer-reviewed journals. How, that is, it can be translated into a framework for reviewing the futures research knowledge terrain. Here, Ramos has recently developed and applied an integral 'meta-scanning' framework that does part of this.

## A Multi-Dimensional Map and Compass: A Research Design

*"Futures studies, like any other autonomous field of knowledge, has to embrace its knowledge territory with the key questions of relevance."*  
Pentti Malaska<sup>27</sup>

Whether working from a similar overview as this paper has thus far presented, or arriving via another route, Richard Slaughter and Jose Ramos, using Wilber's AQAL meta-theory as a guide, have been developing and applying a 'meta-scanning framework' that can account for many of the developmental features of the futurists discourse and knowledge as outlined above.<sup>28</sup>

### A workable map

The meta-scanning framework includes four distinct aspects of futures knowledge. With references to the aspects of the developmental maps of futures knowledge identified above, that can be explored in more detail via the references provided, they are:

1. Social Interests – Popular, pragmatic, progressive and civilisational.<sup>29</sup>
2. Thinking Systems and Methods – Linear, systemic, critical, and integral. (This depth conception loosely reflects Hayward's worldviews of foresight, and also draws on the work of Clare Graves).<sup>30</sup>
3. Focal Domains – Behavioural, structural, cultural, and psychological. (This breadth conception of domains expands upon Habermas' classic social interests and various interpretations thereof as applied to future research).<sup>31</sup>
4. Foresight Capacity Development – Concepts, methods and tools, structures and processes, and social legitimisation.<sup>32</sup>

The meta-scanning framework provides a grounded analysis scheme with which to approach the knowledge generated by futures research found in the main referred journals. In particular, it will allow the following questions to be asked, and answered, with some consistency:

1. What end purposes are important?
2. What depth of thinking characterises the methodological use?
3. What domains are focused on?
4. What capacity development level is being served?

A summary of the meta-scanning framework is presented in Table 1 below.

| Question                                             | Stream/Category                | Levels      |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |

**Table 1: A meta-scanning framework**

### Moving from a map to the territory

Now that a series of goals or questions has been identified, and an academically rigorous analysis framework for answering them has been identified, what remains is to determine how they will actually be used in application. There are several guidelines that will be followed on this expedition:

- As the focus is on futures research knowledge, only those articles that are clearly research articles that have been submitted to peer-review will be included from the issues reviewed. Thus discussions, essays, reviews, and many other journal content items – that contain a significant part of the more formalised futures discourse and general knowledge – have been excluded for both logistical and clarity of scoping reasons;



- To keep this review manageable, a small sampling of issues from each journal will be included: an issue from each journal from the years of 1999, 2001, 2003, and 2005. The odd numbered years have been chosen because the first full-text issues available to this researcher online start in 1999 and so too those in this researcher's library. Special issues were put aside, and so too those with a content emphasis on symposiums and conference reports. Then, aiming for transparency and consistency of sampling, the decision of inclusion was based upon availability: where a journal's accessible archives limited selection, an issue from them was selected first, and then mirrored as closely as possible in the selection of other journal issues;
- The basis of the application of the analysis framework will be normative in terms of looking for an average position in each of the analysis categories; and,
- Each review is aimed at presenting a provisional hypothesis about the nature of the research journal that can then be tested with other futurists.

### ***The territory***

The futures studies discourse has been formalised in academic journals for around forty years. In this time some publications have come and gone, others have waxed and waned in their popularity and academic credibility (and not necessarily at the same time) and some have survived into the present. There are, in 2005, four commonly recognised English language, academic, peer-reviewed journals that appear to be considered dedicated forums of the futures discourse worldwide. These are:

1. Foresight: The journal of future studies, strategic thinking and policy – An international journal edited by Colin Blackman (UK) closely associated with The Center for Futures Studies (UK);
2. Futures: The journal of policy, planning and futures studies – An international journal edited by Zia Sardar (UK);
3. Futures Research Quarterly – World Futures Society, edited by Timothy Mack (USA); and,
4. Journal of Future Studies – Graduate Institute of Futures Studies Tamkang University, Taiwan, edited by Sohail Inayatullah (Australia/Taiwan).

It needs to be noted that other journals, such as Technology Forecasting, and Social Change, World Futures, and Long Range Planning, may also be considered part of the core of the futures discourse literature. Despite this, it is unfortunately beyond the scope of this review to include them here. In addition, a more comprehensive review of futures research journals would likely also identify a suitable collection of second tier journals; those bridging the main futures discourse with others discourses conducting futures research within particular disciplines. These might include titles such as the Journal of forecasting, and the Journal of Business Forecasting Methods & Systems, among numerous other contenders.

### **Journal of the Expedition: The Findings**

*"At root, the problem is epistemological."*

Donald N Michael<sup>33</sup>

For each journal reviewed a summary statement according to the meta-scanning framework is provided. These are intended only as provisional hypotheses. To be determined as more reliable propositions they will, at the least, need to be:

1. Based on a broader sample of issues from each of the journals;
2. Subject to appropriate alternative futurists' interpretations in order to mitigate researcher bias; and,
3. Conducted in more detail such that an analysis of articles included is more rigorous and transparently open to debate.

Unfortunately these conditions could not be met within the restraints of the unsupported research process for this paper. The general scoring has been included in Appendix A.

**Foresight**

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                | 1           | 10                | 3                        | 1                     |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                | 4           | 9                 | 1                        | 1                     |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                |             | 9                 | 4                        | 2                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | 7           | 7                 | 1                        |                       |

**Table 2: Foresight summary analysis**

While the focus is predominantly on pragmatic outcomes, Foresight's articles also cover the full range from popular through progressive to civilisational concerns. Similarly, while the range of methodological approaches, and the complexity of thinking involved, covers the full spectrum, it centres on systemic approaches with a significant inclusion of linear approaches. The main focus domain is structural, with occasional inclusions of cultural and psychological dimensions. The articles demonstrate a generally equal focus on the development of the field's capacity for foresight concepts and methods.

**Futures**

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                | 1           | 16                | 3                        |                       |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                | 7           | 8                 | 2                        | 3                     |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                | 1           | 15                | 7                        | 3                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | 8           | 11                | 1                        | 2                     |

**Table 3: Futures summary analysis**

Futures is most concerned with pragmatic concerns. These are approached, however, from a broad range of methodological systems and originating thinking systems. The emphasis is split between linear and systematic approaches. Each of the four focal domains is addressed in Futures, but in the main the subjects are either centred on structural aspects or, to a lesser degree, cultural issues. While Futures contributes more to the development of foresight methods and tools, each of the other levels of capacity development are represented, particularly concepts.

**Futures Research Quarterly**

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                | 2           | 11                | 3                        |                       |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                | 6           | 8                 |                          |                       |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                | 2           | 12                | 2                        | 1                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | 5           | 8                 | 1                        |                       |

**Table 4: Futures Research Quarterly summary analysis**

Futures Research Quarterly is chiefly pragmatic in focus. The range of thinking systems and methods of approach are generally confined to an equal measure of linear and systemic approaches. While the full

range of focal domains are represented, the main focus is structural issues. The main contribution to social foresight capacity development is in terms of methods and tools, and, to a lesser degree, foresight concepts.

### ***The Journal of Future Studies***

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |             | 7                 | 11                       | 3                     |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                |             | 6                 | 11                       | 3                     |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                | 1           | 10                | 12                       | 2                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | 13          | 8                 |                          |                       |

**Table 5: Journal of Future Studies summary analysis**

The Journal of Future Studies is centred on progressive outcomes, with a general balance of pragmatic and civilisational concerns. Similarly, the methods and thinking systems evidenced focus on critical approaches, with systemic in support and integral on occasion. Each of the four focal domains is represented, however, in general, cultural and then structural issues dominate. Contributing mostly to the foresight concepts level of capacity development, methods and tools are also significantly addressed.

## **Sitting Round the Camp Fire: A Discussion**

In light of the above summary analyses several points of comparison seem apparent:

- Futures addresses more levels of foresight capacity development than other futures journals;
- Futures is likely to more evenly include a broad range of methodological approaches than other futures journals;
- Futures Research Quarterly is more committed to pragmatic and linear approaches than other futures journals.
- The Journal of Future Studies is more critical and progressive than other futures journals; and,
- The Journal of Future Studies shows more interest in cultural issues than other futures journals.

While these comparison statements may or may not hold up under more detailed analyses of each journal, they serve as an attempt to distinguish the journals from one another in a structured fashion. Building on the statements above, the following summary and provisional hypothesis are offered about the defining characteristics of each journal as seen through the meta-scanning analysis framework:

- Foresight is generally a pragmatic, conceptual, and methodological journal focused on structural issues from a broad range of approaches;
- Futures is a broadly inclusive journal focusing on pragmatic concerns;
- Futures Research Quarterly is a pragmatic methods-focused journal concerned with structural issues from linear and systemic approaches; and,
- The Journal of Future Studies is a conceptual, progressive, and critical journal focused on cultural and then somewhat on structural issues.

Several other interesting features of the Futures discourse, arising from the meta-scanning analysis of the research journal articles, are also worth mentioning:

- Integral level approaches are beginning to emerge, primarily focused on methodological development;
- Articles that serve the development of structural and process capacity development of social foresight have recently been dominated by the UK Foresight Program's experience; and
- There is very little published research concerning the civilisational level of interest and little exclusive focus on the social legitimisation of social foresight capacities.

## Tomorrow's Adventure: Entering the Deep Now

*"Futures studies can lead other fields because its interests in various knowledge and disciplinary commitments are softer, there are far fewer academic turf wars in futures studies."*

Sohail Inayatullah<sup>34</sup>

The provisional hypotheses, developed above, are based on a relatively small sample of the futures discourse, and their interpretation, while structured, arises from only one person's inherently partial perspective. In order to ascertain the validity of these propositions it will be necessary to subject them to some form of peer-review. The second part of this review will likely involve, therefore, a research process for assessing both the validity and utility of the analysis framework and the accuracy of the interpretations arrived at in this application of it. Such a research design would necessarily involve other members of the futurist discourse who have a particular interest in, and a professionally recognised knowledge of the history of, futures research. This is a process of subjecting the interpretation, if not the actual analysis framework itself as well, to refinement through engagement with multiple perspectives. In essence it can be seen as entering the 'deep now:' the depth of diversity of qualified views on the same subject. Until then, the analysis framework and the resulting hypotheses must be understood as provisional. Finally, the limited sample size of this study, as noted earlier, significantly contributes to the circumscribed nature of the hypotheses and adds further weight to the need to subject the results to a peer-review process.

## Heading Home

This paper has traced only one, likely idiosyncratic, pathway through the domain of academically rigorous futures research knowledge. It remains to be seen whether the justification herein for the guiding map of analysis, the analysis framework itself, and the hypotheses arrived at using it, are, in themselves or all together, to be regarded as academically rigorous. It is certainly hoped, by this author at least, that the contribution here is not wholly without merit. Even if, as it is suspected, there is a need for far greater refinement and development in order for the approach to be credible, and potentially, of use to futures research explorers worldwide.

## Notes

<sup>1</sup> See <http://www.wfs.org/fsurv.htm>.

<sup>2</sup> Malaska (2001) p230.

<sup>3</sup> Slaughter (1999a) p204.

<sup>4</sup> Slaughter (1999a) p24.

<sup>5</sup> Boucher (2000) p5.

<sup>6</sup> Hayward (2005).

<sup>7</sup> I am indebted to an unknown Integralnaked.org discussion forum member for this fun and meaningful acronym.

<sup>8</sup> Inayatullah (2002) p296.

<sup>9</sup> Slaughter (2002b).

<sup>10</sup> Masini (1993) in Inayatullah (2002) pp295-6.

<sup>11</sup> It is important to note that the topics of application here do not necessarily correspond with the focal domains, identified later, in the discussion of "the quest for integration."

<sup>12</sup> Slaughter (2002b) p3. The "popular" level has been drawn from other statements of this schema by Slaughter and included here for completeness. See, for example, Slaughter (1999a) p145 for an introduction to this classification, or Slaughter (2002a) pp494-5 for a detailed description.

<sup>13</sup> Bell (1997).

<sup>14</sup> Amara (1981).

<sup>15</sup> Slaughter (1996).

<sup>16</sup> Ramos (1994) p59.

<sup>17</sup> Slaughter (1999a) p216.

<sup>18</sup> Mannermaa (2000) p6.

<sup>19</sup> Malaska (2000) p240. See the "domains of knowledge" in Figure 1.

<sup>20</sup> Inayatullah (1990).

<sup>21</sup> It should be noted that, in the view of this author, Pentti Malaska's concerted, adroit, and accessible approach to defining, identifying the epistemological underpinnings, and generally mapping the nature of futures knowledge does not add significantly to this paper's discussion. First, Malaska's approach focuses on end-purposes, topics, and methods to be employed. While the approach separates these, it is something that has already been addressed to greater effect. The second reason, which led to the first justification of exclusion, is that Malaska's domain's of knowledge directly reflect Habermas' social interests, and their presentation adds a layer of confusion without the developmental implications of Inayatullah's presentation of similar ideas. Malaska's contribution is an important one for the futures discourse. It is another layer, another heuristic, which covers much of the same territory. It doesn't, however, in its current form, lend it self easily to providing insight into the developmental depth issue which was the starting point for this discussion, and thus offers no significant contribution towards a resolution. For more information, see Malaska (2000 and 2001).

<sup>22</sup> Wildman & Inayatullah (1997).

<sup>23</sup> Inayatullah (1990).

<sup>24</sup> Inayatullah (2002).

<sup>25</sup> Which, as far as this author is concerned, if Slaughter's writings are examined closely, puts to rest the notion of two competing paradigms of futures research, the evolutionary and critical, outlined by Eva Hideg (2002). As Slaughter (2002d) says himself, in clarifying the nature of critical futures studies, "FS has more to do with distinguishing the outlines of *more advanced stages of social life* than it does with conveying special advantage upon those who currently seek some competitive advantage from using elements of the field for their own limited purposes." [emphasis added]

<sup>26</sup> See, for example, Slaughter (1999a pp341-356, 1999b, 2001, 2004 pp115-166) and Voros (2001).

<sup>27</sup> Malaska (2000) p240.

<sup>28</sup> Ramos (1994).

<sup>29</sup> Representing a deeper structural approach to classifying end purposes. See Slaughter (2002b) p3.

<sup>30</sup> Hayward (2005), Ramos (2004) pp51-6, and also Voros (2001).

<sup>31</sup> For the origin of the terminology and the addition of a fourth focal domain (behavioural and structural are two different domains within Habermas' technical human interest) see Slaughter (1999b), Ramos (2004) pp57-8 and also Voros (2001).

<sup>32</sup> Slaughter (1996).

<sup>33</sup> Bell (1997) p165.

<sup>34</sup> Inayatullah (2002) p296.



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## Appendix A: Journal Review Notes

The meta-scanning framework was used in a tabular form, with each issue for each journal selected for review, receiving individual attention. Each peer-reviewed article was analysed, and the interpretations noted in the journal issue's results table alphabetically. E.G. The results for first article in a journal were recorded using the letter "a" and the second article with "b". In some categories, articles covered several levels, and this is also recorded. To arrive at the final generalised results for each issue the number of entries in each categories levels were totalled and then interpreted as discussed in the main body of this paper, in light of the author's subjective view of the quality of substance of the writing.

## Foresight

Foresight, 1999, Volume 1, Number 4

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |             | A, C, E           | B, D                     |                       |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                | C           | A, B, E           | D                        |                       |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                |             | A, B, C, D        |                          | E                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | B, C, D     | E                 | A                        |                       |

Foresight, 2001, Volume 3, Number 1

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                | C           | A, B              |                          |                       |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                | C           | A, B              |                          |                       |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                |             | A, B, C           |                          |                       |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | B, C        | A                 |                          |                       |

Foresight, 2003, Volume 5, Number 3

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |             | A, B, C, D, E     |                          |                       |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                | C, D        | A, B, E           |                          |                       |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                |             | C, D              | A, B, E                  |                       |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | C, E        | A, B, D           |                          |                       |

Foresight, 2005, Volume 7, Number 2

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |             |                   | A                        | B                     |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                |             | A                 |                          | B                     |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                |             |                   | A                        | B                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                |             | A, B              |                          |                       |

### Foresight Analysis Summary

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                | 1           | 10                | 3                        | 1                     |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                | 4           | 9                 | 1                        | 1                     |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                |             | 9                 | 4                        | 2                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | 7           | 7                 | 1                        |                       |

## Futures

Futures, 1999, Volume 31, Issue 6

|                                                      |                                |                      |                             |                               |                       |
|------------------------------------------------------|--------------------------------|----------------------|-----------------------------|-------------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular<br>E         | Pragmatic<br>A, B, C, D, F  | Progressive                   | Civilisational        |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear<br>B, C, E, F | Systemic<br>A,              | Critical                      | Integral<br>D         |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural          | Structural<br>A, B, C, D, E | Cultural                      | Psychological<br>F    |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>B, C, E  | Methods and tools<br>D, F   | Structures and processes<br>A | Social legitimisation |

Futures, 2001, Volume 33, Issue 2

|                                                      |                                |                  |                           |                          |                               |
|------------------------------------------------------|--------------------------------|------------------|---------------------------|--------------------------|-------------------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular          | Pragmatic<br>A, B, C      | Progressive<br>D, E      | Civilisational                |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear<br>C      | Systemic<br>A, B          | Critical<br>E            | Integral<br>D                 |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural<br>D | Structural<br>A, B, C, D  | Cultural<br>D, E         | Psychological<br>A, D         |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>A, C | Methods and tools<br>B, D | Structures and processes | Social legitimisation<br>A, E |

Futures, 2003, Volume 35, Issue 5

|                                                      |                                |                  |                           |                          |                       |
|------------------------------------------------------|--------------------------------|------------------|---------------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular          | Pragmatic<br>A, B, C, D   | Progressive              | Civilisational        |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear<br>C, D   | Systemic<br>A             | Critical<br>B            | Integral              |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural      | Structural<br>C, D        | Cultural<br>A, B, D      | Psychological         |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>C, D | Methods and tools<br>A, B | Structures and processes | Social legitimisation |

Futures, 2003, Volume 37, Issue 4

|                                                      |                                |               |                                    |                          |                       |
|------------------------------------------------------|--------------------------------|---------------|------------------------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular       | Pragmatic<br>B, C, D, E            | Progressive<br>A         | Civilisational        |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear        | Systemic<br>B, C, D, E             | Critical                 | Integral<br>A         |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural   | Structural<br>B, C, D, E           | Cultural<br>A, C         | Psychological         |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>A | Methods and tools<br>A, B, C, D, E | Structures and processes | Social legitimisation |

### Futures Analysis Summary

|                                                      |                                |                  |                         |                               |                            |
|------------------------------------------------------|--------------------------------|------------------|-------------------------|-------------------------------|----------------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular<br>1     | Pragmatic<br>16         | Progressive<br>3              | Civilisational             |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear<br>7      | Systemic<br>8           | Critical<br>2                 | Integral<br>3              |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural<br>1 | Structural<br>15        | Cultural<br>7                 | Psychological<br>3         |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>8    | Methods and tools<br>11 | Structures and processes<br>1 | Social legitimisation<br>2 |

## Futures Research Quarterly

Futures Research Quarterly, Winter 1999, Volume 15, Number 4

|                                                      |                                |                     |                             |                          |                            |
|------------------------------------------------------|--------------------------------|---------------------|-----------------------------|--------------------------|----------------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular<br>D        | Pragmatic<br>A, C, D, E, F  | Progressive<br>B         | Civilisational             |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear<br>A, D      | Systemic<br>C, E, F         | Critical<br>B            | Integral                   |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural         | Structural<br>A, C, D, E, F | Cultural<br>B, D         | Psychological<br>B         |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>A, D, F | Methods and tools<br>B, E   | Structures and processes | Social legitimisation<br>C |

Futures Research Quarterly, Spring 2001, Volume 17, Number 1

|                                                      |                                |                     |                              |                          |                       |
|------------------------------------------------------|--------------------------------|---------------------|------------------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular             | Pragmatic<br>A, B, C         | Progressive<br>D         | Civilisational        |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear<br>A, B      | Systemic<br>C, D             | Critical                 | Integral              |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural<br>A, B | Structural<br>B, C, D        | Cultural                 | Psychological         |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>A       | Methods and tools<br>B, C, D | Structures and processes | Social legitimisation |

Futures Research Quarterly, Summer 2003, Volume 19, Number 2

|                                                      |                                |                |                              |                               |                       |
|------------------------------------------------------|--------------------------------|----------------|------------------------------|-------------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular<br>B   | Pragmatic<br>A, D, E         | Progressive<br>C              | Civilisational        |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear<br>A, B | Systemic<br>C, D, E          | Critical                      | Integral              |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural    | Structural<br>A, B, C, D     | Cultural                      | Psychological<br>E    |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>B  | Methods and tools<br>A, C, E | Structures and processes<br>D | Social legitimisation |

Please note, a 2005 issue of Futures Research Quarterly was not available to the researcher in time to include in this analysis.

### Futures Research Quarterly Summary Analysis

|                                                      |                                |                  |                        |                               |                       |
|------------------------------------------------------|--------------------------------|------------------|------------------------|-------------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular<br>2     | Pragmatic<br>11        | Progressive<br>3              | Civilisational        |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear<br>6      | Systemic<br>8          | Critical                      | Integral              |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural<br>2 | Structural<br>12       | Cultural<br>2                 | Psychological<br>1    |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts<br>5    | Methods and tools<br>8 | Structures and processes<br>1 | Social legitimisation |

## Journal of Future Studies

Journal of Future Studies, May 1999, Volume 3, Number 2

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |             |                   | A,B, C, D                | E                     |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                |             |                   | A, B, C, D, E            |                       |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                |             | B, C, E           | A, C, D, E               |                       |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | A, C, E     | B, D              |                          |                       |

Journal of Future Studies, August 2001, Volume 6, Number 1

|                                                      |                                |               |                   |                          |                       |
|------------------------------------------------------|--------------------------------|---------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular       | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |               | F                 | A, B, C, D, E            |                       |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear        | Systemic          | Critical                 | Integral              |
|                                                      |                                |               | A, B, C           | D, E                     | F                     |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural   | Structural        | Cultural                 | Psychological         |
|                                                      |                                |               | B, C              | A, D, E                  | F                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts      | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | A, B, C, D, E | F                 |                          |                       |

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|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |             | A, B, C, D, E     |                          |                       |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                | E           | A, B, D           | C                        |                       |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                | A           | A, B, C, E        | D                        |                       |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | A, B        | C, D, E           |                          |                       |

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|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |             | D                 | A, E                     | B, C                  |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                |             |                   | A, D, E                  | B, C                  |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                |             | B                 | A, B, C, E               | D                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | B, C, E     | A, D              |                          |                       |

### Journal of Future Studies Analysis Summary

|                                                      |                                |             |                   |                          |                       |
|------------------------------------------------------|--------------------------------|-------------|-------------------|--------------------------|-----------------------|
| 1. What end purposes are important?                  | Social Interests               | Popular     | Pragmatic         | Progressive              | Civilisational        |
|                                                      |                                |             | 7                 | 11                       | 3                     |
| 2. What methodological thinking is being used?       | Thinking Systems and Methods   | Linear      | Systemic          | Critical                 | Integral              |
|                                                      |                                |             | 6                 | 11                       | 3                     |
| 3. What domains are focused on?                      | Focal Domains                  | Behavioural | Structural        | Cultural                 | Psychological         |
|                                                      |                                | 1           | 10                | 12                       | 2                     |
| 4. What capacity development level are they serving? | Foresight Capacity Development | Concepts    | Methods and tools | Structures and processes | Social legitimisation |
|                                                      |                                | 13          | 8                 |                          |                       |