Dynamic Reframing of "Union"

Implications for the coherence of knowledge, social organization and personal identity

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Introduction

In an earlier discussion of the emerging significance of "union" (Emergence of a Union of Imaginative Associations engendered by a Union of Intelligible Associations from a Union of International Associations, 2007), the argument focused on the shifting significance in relation to the three initiatives mentioned. The argument presented there has been further developed here (including text from the other paper as appropriate for readability).

The century-old Union of International Associations ("UIA^1") aspired, certainly in the eyes of its founders, to a form of union dependent on the organization of knowledge -- its classification -- and the institutional consequences for harmonization, cooperation and coordination. This tendency is still to be found in many intergovernmental initiatives, notably those of the European Union and the United Nations.

Efforts to reform and transform the UIA ("UIA^1") have been reframed as effectively engendering a distinct "transitional" vehicle, usefully named as the Union of Intelligible Associations ("UIA^2"). This has emphasized a strategic knowledge management function beyond the conventional information gathering and classifying preoccupations of UIA^1. The fundamental challenge to UIA^2, as presented there, usefully models similar inadequacies in many institutions variously seeking to enhance collective intelligence in response to information overload in the face of social and strategic complexity.

Confronted by its own inadequacies, UIA^2 is however understood there as having itself created a context for the emergence of a Union of Imaginative Associations ("UIA^3"). This could be understood as more relevant to the integrative possibilities and culture of the times -- and to the strategic flexibility and forms of cognitive engagement for which they call. These three different "stages" are first described before subsequently exploring the necessarily unusual, counter-intuitive challenges to how they may be fruitfully understood as interrelated -- if UIA^3 is to be of any significance.

Given the assumptions readily made regarding the nature of "union" it is useful to develop the earlier argument, generalizing it to include the challenges of other initiatives, but especially those instigated as complements to the Union of Imaginative Associations, namely:

- University of Earth
- Union of the Whys
- Cognitive Fusion Reactor (ITER-8)

Consistent with the self-reflexive emphasis of their approaches, "union" is inappropriately framed as any one of the ways it might be readily understood (as articulated below), rather it is a relationship between these whose nature is variously suggested by each -- and by other insights that may emerge. This understanding of "union" necessarily also applies to the relationship between the four new complementary initiatives (noted above).

Such complementaries point to mutually counter-balancing echoes of a central process in the moment and beyond time. Together they
form an emerging, overarching union of interweaving processes: a potential "pattern that connects". The nature of any union of significance is therefore not predefined by any form of understanding but is progressively and continually (re)discovered in time. Indeed, since "yoga" signifies "union" (in Sanskrit), the corollary may be that the challenge of any "union" of significance implies some form of "yoga".

Such an approach is also a challenge to the implications for any new understanding of the European "Union", in the light of efforts at constitutional reform and popular credibility, and more generally of the "United" Nations, itself still in quest of reform after many decades. An indication of new thinking on "union" is evident in the proposed alternative to the divisive foreign policy of the Bush regime (as inspired by the neocon Project for the New American Century), namely a new bipartisan report by the Woodrow Wilson School of Public and International Affairs (Princeton University), titled Forging a World of Liberty Under Law, US National Security in the 21st Century (2006). This notably proposes an appropriate charter for the establishment of a "concert of democracies". Some possible implications are discussed elsewhere (A Singable Earth Charter, EU Constitution or Global Ethic? 2006)

"Union"

In the case of the Union of International Associations, this may be seen as having been characterized by the intimate early relations that "UIA" (through a "UIA??") had to the origins of the international classification sciences, especially through its close association (through Paul Otlet) with the International Institute of Bibliography (cf W Boyd Rayward, The Origins of Information Science and the International Institute of Bibliography / International Federation for Information and Documentation (FID), 1997). In the development of the Universal Decimal Classification (UDC), it is understandable that the "universal classification" of knowledge was a fundamental dimension of the early understanding of "union" -- employed by UIA through to the 1960s.

Breaking away from the UDC, this understanding was further developed within UIA in the light of the following:

- a concern with frameworks appropriate to interrelating perspectives of those who seemingly disagree (Functional Synthesis of Viewpoints: a conceptual model based on purpose, 1968)
- a concern with the variety of potentially significant "integrative concepts" (Integrative Knowledge and Transdisciplinarity Project, 1975; Documents relating to Synthesis, transdisciplinarity and integration)
- procedures towards establishing a "concept inventory" (Toward a Concept Inventory: suggestions for a computerised procedure, 1973)
- the need to move beyond the constraints of the UDC and other such systems in order to present a more integrative insight into the relationships between areas of activity of international organizations (Functional Classification in an Integrative Matrix of Human Preoccupations, 1982)
- a concern for the implication of the variety of ways of knowing (Encyclopedia of Conceptual Insights from the World's Cultures, 1988)

Outmoded understandings of "union"

Implicit in this argument and in the work of the complexity sciences in recent decades is a recognition that it is no longer fruitful to constrain understandings of "union" to:

- forms of closure implying a system coordinated in terms of first-order cybernetic feedback loops
- forms of control empowering directives from a centre
- essentially unchanging in structure, or changing within a prescribed pattern precluding any fundamental restructuring
- limited a focus on agreement between "members", possibly legally binding, precluding looser forms of association -- perhaps even more closely associated with intangibles such as "common values" or "shared culture"

Such misplaced concreteness and rigidity, as reflected in existing institutional forms of "union", is rendered even less appropriate to the future by the ego attachments to their elaboration and operation, whether by their founders or those whose careers are dependent upon their unchanging conventional nature. Typically those who over-identify with such a form of "union" tend to obstruct the development of its agenda -- however well thought out.

Such outmoded approaches to "union" contrast markedly with the emergent forms of far greater flexibility that are implicit in virtual initiatives and configurations enabled in cyberspace.

Generic understandings of "union"

Other approaches to a more generic understanding of "union", as explored through UIA, under the notional auspices of UIA, have included:

- tensegrity: Documents relating to Networking, Tensegrity, Virtual Organization
- complexity: Psycho-social Significance of the Mandelbrot Set: a sustainable boundary between chaos and order, 2005
- cognitive fusion: as assembled and focused cognitive resources (Enactivating a Cognitive Fusion Reactor, 2006)
- questions: action characterized by engendering questions rather than answers: Documents relating to Quests, Questions and Answers
"trans-" and "beyond": the premature closure implied by some understandings of "union" is usefully (and imaginatively) challenged by the possible significance of the following:

- hyperspace and "trans-spatial", notably as characteristics of hyperreality (Hyperaction through Hypercomprehension and Hyperdrdier: necessary complement to proliferation of hypermedia in hypersociety, 2006)
- "trans-temporal": (Engaging Macrohistory through the Present Moment, 2004; Documents relating to Time: Futures, Present, History)
- transdisciplinary: (Documents relating to Synthesis, Transdisciplinarity and Integration)
- transcultural: (Systems of Categories Distinguishing Cultural Biases, 1993)
- "trans-methodology": as advocated by Paul Feyerabend (Against Method, 1975) and discussed elsewhere (Beyond Method: engaging opposition in psycho-social organization, 1981)
- potential understandings and challenges associated with any encounter with the coherence or organizing principles of extraterrestrial societies (Communicating with Aliens: the psychological dimension of dialogue, 2000)

Attributes of "union"

Such "union" necessarily evokes, or is dependent upon, other attributes that may variously include:

- **dynamics**: as valued in patterns where associations are essentially dynamic rather than static, notably in music, song, dance and drama -- or other forms of beauty only exemplified in movement. The dynamics may emphasize transformative moments, as in drama or challenging encounters through which insight emerges. Spontaneity may be a valued focus of such associations. To the extent that it is more than of a static nature (characteristic of UIA1 and UIA2), "union" may also be more meaningfully characterized dynamically as:
  - an evolving all-encompassing pattern of integrative understanding and communication, as associations are recognized or made
  - essentially incomplete and emergent -- as a "work in progress" -- with "union" recognized as a verb significant to understanding of process reality (beyond the closure associated with "unionise")
  - intimately associated with the ongoing process of imagination, not simply a post facto recognition of what is creative
  - identity in dynamic rather than static terms -- emergent behaviour providing a framework for a higher sense of identity (Dynamically Gated Conceptual Communities emergent patterns of isolation within knowledge society, 2004)
  - the "cognitive catastrophes" of surprise (Cognitive Feel for Cognitive Catastrophes: Question Conformality, 2006)

- **intimacy**: in that it evokes cognitive engagement fundamental to enactivating the "pattern that connects" and as evoked in descriptions of:
  - peak experiences (whether mystical or catalyzed by drugs)
  - flow experience (cf. Mihaly Csikszentmihalyi, Flow: The Psychology of Optimal Experience, 1990) as it might apply to organizational or community processes
  - grokking (cf Authentic Grokking: emergence of Homo conjugens, 2003)
  - enactivating the pattern that connects (Walking Elven Pathways: enactivating the pattern that connects, 2006)

- **existential challenge**: with qualities challenging assumptions, such as explored with respect to:
  - tendency to dilemma (Donald Michael's paper, Leadership's shadow: the dilemma of denial. In: Futures 26, 10, Dec 1994)
  - encountering the "shadow" (The "Dark Riders" of Social Change, 2002)

- **synchronicity and serendipity**: as acknowledged in some collective creative endeavours -- where an unforeseen sense of emergent "togetherness" may be a factor

- **confluence of externalities**: as an interweaving of encompassing contexts for understanding and endeavour (possibly described as nature, community, the world, or the universe) and a degree of resonance with a sense of of personal and collective identity (a coherence possibly echoed in the significance of mythological cycles), namely a correspondence between:
  - external, objective, organizational union
  - internal, subjective integration

- **present moment focus**: as discussed from various perspectives elsewhere (Presenting the Future: an alternative to dependence on human sacrifice through global pyramid selling schemes, 2001) and developed in annexes to that paper on:
  - Part 1: Presentation and Representatives
  - Part 2: Making (the) Present and Thriving in the Moment
  - Part 3: Entelechy: actuality vs future potential
  - Part 4: Composing and Engendering the Future
  - Part 5: Present Moment Research: exploration of nowness

Such a focus reflects the views of constituencies concerned with:

- composing the moment
- joy in the moment
Complementary emergent initiatives

Beyond the "intelligible"

As noted above, the Union of Imaginative Associations may be understood as having been engendered by the Union of Intelligible Associations. The challenge of the latter is one of "un-intelligibility" -- as discussed in terms of the use of a representation of the Mandelbrot set as its logo (Challenges to Comprehension Implied by the Logo of the Union of Intelligible Associations, 2007). That argument is developed here to highlight the nature of the challenge of understanding the "union" between the four complementary initiatives -- or any analogous set for that matter.

Real vs Imaginary / Positive vs Negative: The complex numbers are positioned on a complex plane (of which the image above is one representation) in terms of two axes. By convention, the "real" dimension is represented on the horizontal axis (x-axis), whereas the "imaginary" dimension is represented on the vertical axis (y-axis) -- as shown in the Wikipedia entry. For the purposes of the logo, the axes have been rotated 90 degrees to the right -- with the positive-real below (and the negative-real above), whilst the positive-imaginary is to the right (and the negative imaginary to the left). Given the widely remarked resemblance to a meditating figure, this rotates the image from "sleeping" to "seated". Seen as a Buddha figure, this has notably given rise to "Buddhabrot" representations, using a special graphical rendering technique (Melinda Green, The Buddhabrot Technique; image; video) that reinforces the possibility of using astrophysical models to encode the universe of knowledge (Towards an Astrophysics of the Knowledge Universe: from astronautics to nooanautics? 2007).

The challenge of the Union of Intelligible Associations was to interrelate disparate sets of conceptual entities -- such as organizations, problems, strategies, values, state of awareness and development, metaphors, meetings, legal instruments (treaties, etc) -- of significance beyond the preoccupations of individual nations. The following table could be used to extend the mathematical understanding of real-imaginary/positive-negative -- beyond that of the complexity sciences -- honouring some of the self-referential challenges of complex adaptive systems (Consciously Self-reflective Global Initiatives: Renaissance zones, complex adaptive systems, and third order organizations, 2007).

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<tr>
<th>Generalization of the dimensions of the complex plane</th>
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<td>Positive (assertion, affirmation, appreciation)</td>
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<tr>
<td>Imaginary (values, existence, identity, qualitative)</td>
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<tr>
<td>Real (measurable, quantitative)</td>
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<td>Negative (negation, denial, depreciation, criticism)</td>
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| A more generic "Mandelbrot set" could then be understood as the result of mapping the features of complex collective reality (notably the entities profiled by the Union of Imaginative Associations) onto a complex plane in terms of their real-imaginary, positive-negative characteristics. Some features falling outside the boundary between chaos and order -- the boundary of the set as depicted -- would then be understood as "un-intelligible", and not forming part of collective reality. This generic reframing relates the positive-negative polarization much more closely to that evident in Taoist understandings of "creative"-"receptive". The polarization "real"-"imaginary" also then relates more closely to the subtleties of enactivism and the embodied mind (see Documents relating to Polarization, Dilemmas and Duality; Documents relating to Existential Engagement and Embodiment)

Languages and epistemological frameworks: However the question then becomes what language or epistemological framework is appropriate to representing and navigating such a complex reality (see Documents Relating to Language). A more insightful response is that no single language is adequate to this task (Navigating Alternative Conceptual Realities: clues to the dynamics of enacting new paradigms through movement, 2002). It might be hoped that a set of complementary frameworks would be appropriate -- notably as caricatured elsewhere (12 Complementary Languages for Sustainable Governance, 2003). Better formulated distinctions of this kind might be made in terms of Ken Wilber's AQL, Magoroh Maruyama's mindscapes, or other systems (Systems of Categories Distinguishing Cultural Biases, 1993; Richard E Nisbett, The Geography of Thought: how Asians and Westerners think differently...and why, 2003).

On this point, and in addition to the above author's, the work on a biocultural paradigm merits attention (Maria M Colavito, The Heresy of Oedipus and the Mind/Mind Split: a study of the biocultural origins of civilization, 1995; Antonio T de Nicolas, Religion: the last weapon of discrimination and the bio-cultural corrective, 2007; Neurobiology, Communities, Religion: a bio-cultural study, 1998). This is valuable, whether in terms of the challenging interplay of five modules of the human brain or of the need for distinct, but complementary, languages to order experience of richer significance. Particularly relevant is the challenging fluidity through which the neural networks associated with distinct brain modules must necessarily be employed.

Such arguments point to the real challenge of intelligibility -- a comprehension barrier or "glass ceiling" inhibiting more comprehensive insight.

Complementary emergent initiatives: This is one justification for reframing such challenges within the framework of four emergent
complementary initiatives that might be understood as embodying to some degree the epistemological challenges of the above table:

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<th>Positive (assertion, affirmation, appreciation)</th>
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<td>Imaginary (values, existence, identity, qualitative)</td>
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</tr>
<tr>
<td>Union of Imaginative Associations</td>
<td>Cognitive Fusion Reactor</td>
</tr>
<tr>
<td>Union of the Whys</td>
<td>University of Earth</td>
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As with the Mandelbrot set, the challenge is the exploration of the interface between chaos and order. In this sense a potentially more interesting way in which to envisage the emergent initiatives "engendered" by the "Union of Intelligible Associations" as associated with zones on the complex plane within the boundaries of the set.

### Playing with fundamental quaternaries

There is of course a long tradition, explored through a variety of metaphors, regarding the fundamental significance to be associated with quaternary systems of categories and framings of ways of knowing. Here it is considered most fruitful to consider these quaternaries as essentially incomplete metaphors indicative of the central challenge of understanding -- in the light of the unobvious essential relationship within any quaternary, and notably that between them when they derive from different cultures.

This challenge is helpfully highlighted by insights from interparadigmatic dialogue articulated by Kinhide Mushakoji (Global Issues and Interparadigmatic Dialogue, 1988) regarding the quadrilemma more characteristic of Eastern logics. Here it may be usefully applied to the case being made for a dynamic dimension to "union" rather than a purely static one. A richer pattern would be:

- static (not dynamic) -- a conventional institutional understanding
- dynamic (not static) -- the case being made here (with excessive emphasis)
- dynamic and static -- a more realistic case, manifesting in practice, if not recognized as such
- neither dynamic nor static -- probably more realistic, but more challenging to understanding

The elusive nature of "union" clearly combines all these conditions. This does point to the challenge of having named the UN as the "United" Nations. There is no inherent understanding of reform.

Especially interesting is the continuing search for a "unified" field theory in fundamental physics. This specifically seeks to determine the relationship between the four fundamental forces. From strongest to weakest these are:

- **Strong nuclear force** holding quarks together to form neutrons and protons, and holding neutrons and protons together to form nuclei.
- **Electromagnetic force** acting on electrically charged particles.
- **Weak nuclear force** responsible for radioactivity, it is a repulsive short-range interaction that acts on electrons, neutrinos and quarks.
- **Gravitational force**, a long-range attractive force that acts on all particles with mass.

A unified field theory attempts to bring these four force-mediating fields together into a single framework.

Inspired by this search, various efforts have been made to explore analogues in the psycho-social domain, notably in relation to understandings of a spiritual domain. Many of these are of course considered meaningless by physicists who have no interest in the psycho-social domain in which they pursue their Nobel Prizes. One interesting case is Lawrence W. Fagg (Electromagnetism and the Sacred: at the frontier of spirit and matter, 1999) a former physicist. More challenging are the heavily researched proposals on the Unified Field of Natural Law, the holistic transcendental field underlying all manifest phenomena found in nature, as promoted by the Maharishi University of Management, notably in the light of insights from vedic culture. Another, holistic quantum relativity, also seeks to integrate spirituality with science.

A curious commonality to both physical and psycho-social initiatives is the emphasis on "unified". It might be argued that in both cases this omits the function of the observer -- or too readily assumes that the observer's comprehension will ensure some form of closure. As with the "United" Nations, it does not allow for the attitude of someone who was not consulted as to their identification with "we the peoples" -- and may thereby exemplify the dis-united nature of that collective initiative.

More interesting from an epistemological perspective is the philosophical study of Antonio de Nicolas of the Rg Veda in requiring **four languages**, rather than one, in order to convey the contrasting natures of its meaning (Meditations through the Rg Veda, 1978). As discussed in more detail elsewhere in relation to other four-fold frameworks (Threshold of Comprehensibility: a fourfold minimal system? 1983), these are:

- Language of non-existence
- Language of existence
- Language of images and sacrifice
- Language of embodied-vision

Conceptual movement, and development in general, takes place through the elaboration of constellations of categories in which each
category is context and structure dependent. Opposite or reciprocal possibilities can be perceived as equally relevant, whether co-present or succeeding each other. As noted by de Nicolas: "Any perspective remains just one out of a group of equally valid perspectives...but no song has so universal an appeal that it terminates the invention of new ones...the function of any language is to make clear its own dependence on, and reference to, other linguistic systems." Later he notes:

"In a language ruled by the criteria of sound, perspectives, the change of perspectives and vision, stand for what musicologists call "modulation". Modulation in music is the ability to change keys within a composition. To focus within this language, and by its criteria, is primarily the activity of being able to run the scale backwards and forwards, up and down, with these sudden shifts in perspectives. Through this ability, the singer, the body, the song and the perspectives become an inseparable whole. In this language, transcendence is precisely the ability to perform the song, without any theoretical construct impeding its movement a priori, or determining the result of following such movement a priori. Nor can any theoretical compromise substitute for the discovery of the movement of "modulation" itself in history. The human body would then be asked to lose the memory of its origins; a task the human body refuses to do by its constant return to crisis." (p.192)

More recently de Nicolas has addressed, in the light of the above, the challenging issue of the relations between scientific and spiritual ways of knowing in the light of the clusters of neural networks variously triggered and mutually engaged by these concerns (Neurobiology, Communities, Religion: a bio-cultural study, 1998).

The challenge of comprehending "union" may perhaps be usefully caricatured by respectfully assuming that its existential reality is as resistant to assumptions about being "grasped" as has been made evident by feminists (cf Beyond Harassment of Reality and Grasping Future Possibilities: learnings from sexual harassment as a metaphor, 1996). There is some charm to understanding reality as presenting itself so as to evoke the following set of complementary reactions:

- as an infant or child -- notably calling for care
- as a flirtatious (potentially sexually active) partner in any exchange
- as a consummated mature adult -- cautious of the intentions of others
- as an elder -- deserving of respect

Given the psycho-active dynamics of the above quaternaries, it is perhaps useful to seek tentative simplistic correspondences with the four complementary strategic initiatives as follows, purely as a basis for further reflection:

- **Strong nuclear force**: Cognitive Fusion Reactor (ITER-8)
- **Electromagnetic force**: Union of Imaginative Associations
- **Weak nuclear force**: Union of the Whys
- **Gravitational force**: University of Earth

**Averting an institutional Apocalypse**

Elsewhere the metaphor of Armageddon was used to illustrate the challenge of an archetypal failure of "union" (Spontaneous Initiation of Armageddon: a heartfelt response to systemic negligence, 2004). A related myth may be used to question how the many aging institutions of the 20th century can transform their dreams and inspirations into forms appropriate to the 21st century? In a world increasingly challenged by faith-based governance, unmanageable crises, policy "surprises", and the expectations of Apocalypse soon, what might be understood as the "four horsemen" of some international institutional Apocalypse?

This frame is used to highlight a possible remedial responses in the light of Paul Otlet's original dream for UIA

The predicted triumph of chaos over order (consecrated by physicists' Second Law of Thermodynamics) calls for shifting beyond the possibilities of the "intelligible" order to the "imaginative" -- if not to the "inspiration" of faith-based policy-making. Hence the need for a "Union of Imaginative Associations" to sustain new thinking and the excitement of shifting paradigms -- mitigating dependence on psychodelic and other surrogates to stave off boredom. This is an operational transformation of Otlet's original focus on hierarchical "classification" as the static key to what is now clearly a challenge of dynamic coherence in response to insights emerging in evolving rapidly within increasingly virtual networks.

A second horseman is that identified by management cybernetician Stafford Beer (under the name Le Chatelier’s Principle) whereby, like any competent hydra, the institutional system adapts to initiatives for remedial social change -- that it happily welcomes -- such as to completely nullify the desired effects of that change. Hence the need for a psychosocial analogue to the recently launched ITER mega-project to develop a nuclear fusion reactor -- an analogue that might be described as a "Cognitive Fusion Reactor" -- an imaginal transformation of energy resourcing (ITER-8). Where Otlet hoped for a necessary degree of operational focus through normalization and coordination of international programme initiatives, here the challenge is how to configure the pattern of collective initiatives such as to ensure sustainable benefits from psycho-social energy. Ironically research on cognitive fusion is currently primarily of relevance to the comprehensible integration of information required by fighter pilots in making split-second decisions.

The third horseman might be that identified by psychiatrist Ross Ashby (and known to cyberneticians as Ashby's Law of Requisite Variety) whereby strategic failure is guaranteed through ensuring lack of requisite variety of insight in seeking to navigate or control a challenging turbulent environment. Typically this takes the form of eliminating consideration of possible alternatives, possibly under the recently exemplified banner of "binary logic". Where Otlet, through the UIA, successfully brought together the executives of international associations to focus the curriculum of an early "International University", here the transformed challenge is to enable a "University of Earth" to harness understanding of the variety of grounded patterns of nature that so successfully embody sustainable development -- a learning environment for ecosyntegrity (extending an insight of Stafford Beer).
The final horseman might be that exemplified by the widely recognized consequences of Murphy's Law, but better articulated as "systemantics" (in John Gall's exploration of how and why institutional systems tend to fail). This is typically evidenced by the emergence of corruption and nepotism in international systems, and denial of it in any public discourse about it, notably on the part of the relevant authorities and academic disciplines. Where the UIA played a key role in the early professionalization of international meetings through its International Congress on Congress Organization, here the transformed challenge might best be embodied in a "Union of the Whys" as a focus for critical insight on the challenges of dialogue processes amongst those with a claim to the wisdom vital to any coherent response to the future.

The challenge is of course to understand the nature of the complementary relationship between such a fourfold institutional response.

**Emergent higher-order symbol as a cognitive/existential "keystone"**

**Integrative tools**: As noted earlier, it has become relatively clear that the disciplines individually, or variously clustered and integrated according to currently favoured interdisciplinary methodologies (including the systems sciences and complexity sciences), have not proven capable of furnishing integrative approaches of requisite power and credibility for the challenges of the times. This is apparent both with regard to mega-problems (eg environmental degradation, regional conflict) and to seemingly simple problems (eg marginalized social groups, delivery of health care).

Such failure opens the door to the dubious abuses of faith-based reality and justifies the ambiguously quixotic title of the *dropping knowledge* initiative (cf *Enabling a Living Library: reconciling "free voices" and "intellectual propriety*", 2006). The capacity to get collective intelligence to work, to manage knowledge intelligently and fruitfully, to augment intellect and to elicit wisdom, is unfortunately inadequate to the challenges in the daily news headlines.

Those reflecting on the significance of the World Wide Web, and its possible future variants (Web 2.0, Semantic Web, etc), have waxed enthusiastic regarding its significance for humanity -- even associating it closely with the emergence of "planetary consciousness" (cf Ervin Laszlo, *Planetary Consciousness: our next evolutionary step, Cybernetics and Human Knowing*, 1997; *The Imaginal within the Cosmos: the noosphere and cyberspace*). This echoes Paul Otlet's reflections on such potential, although he saw a degree of integration of knowledge being achieved through use of the Universal Decimal Classification.

Missing from reflections on the future of the web is any sense of how knowledge is fruitfully to be integrated and how it is to facilitate integrative reflection -- rather than reinforce tendencies to *tunnel vision* (facilitated by "drill down" search engines) and *groupthink* as a characteristic consequence of fragmented disciplines and information overload. The challenge can only increase through current initiatives to digitise all books. With regard to cognitive engagement with integrative knowledge -- recognizing that the web as currently envisaged may not be the *nec plus ultra* of knowledge management achievements for all time -- there is a case for reflecting on what might prove to be a central feature of an emergent UIA. In addition to those discussed in Annex 3, some reflections to that end include:

- **From Information Highways to Songlines of the Noosphere: global configuration of hypertext pathways as a prerequisite for meaningful collective transformation** (1996)
- **Sacralization of Hyperlink Geometry** (1997)
- **Council of the Whys: emergent wisdom through configuration of why-question dynamics**, 2006
- **Enactivating a Cognitive Fusion Reactor**, 2006

In the current situation the following integrative tools might be said to be of relevance beyond the framework of particular disciplines and ways of knowing:

- **Models**: typically those aspiring to integrate a range of variables, dimensions, or ways of knowing. Frequently such models are considered intellectual property, subject to copyright restrictions -- and are often closely associated with the identity and ambitions of those responsible and their antagonism to other competing models (*Future Coping Strategies: beyond the constraints of proprietary metaphors*, 2001). Unfortunately, irrespective of their structure, they seldom take account of the cognitive challenge of engaging and identifying with them

- **Symbols**: of which there are many compilations, including that initiated within UIA* (Integrative Symbols Project), but notably of the following kinds:
  - advertising: typically elaborated with the most competent design and market research to ensure that they evoke a pattern of culturally-charged associations fruitful to the promotion of commercial and political agendas
  - belief: such symbols are central to each religion as well as being currently a source of provocation in some secular societies for that reason
  - identity: typically a focal point of social groups, such as sporting teams or military regiments, in some cases to the point of being prepared to "die for" what they represent. Distinctive identity is notably important to international bodies (cf *World Guide to Logotypes, Emblems and Trademarks of International Organizations*, 1997; *Experimental Articulation of Collective Identity -- through a dynamic system of metaphors*, 1991)

- **Visualizations**: notably as insightfully interrelated in a *periodic table* by Ralph Lengler and Martin Eppler (*Towards A Periodic Table of Visualization Methods for Management*, 2007). Also insightful is the collection of cyberspace representations by Martin Dodge (*An Atlas of Cyberspaces*, 2007)

**Psychoactive integration**: Such cognitive tools raise the question of how they are interrelated (cf *Patterns of Conceptual Integration*, 1984). Additionally there is the key question of how identification with them is "activated" -- how they become "psychoactive" and to what degree. James Lawley (*When Where Matters: How psychoactive space is created and utilised*, *The Model Magazine*, January 2006) clarifies this non-drug use of the term as follows:
Once a space becomes psychoactive for a person they are effectively 'living in their metaphor'. Then, when something changes in that perceptual space (often spontaneously), more of their mind-body is involved. This usually produces a more embodied and systemic change than just 'talking about' changing.... Psychoactivity is a particular kind of relationship between a person, their body, what they perceive and the context of that perception. Psychoactivity occurs when a person's thoughts, emotions and body sensations take on symbolic significance in response to what they are perceiving....Space becomes psychoactive once a person's mind-body starts to react symbolically to their physical surroundings and/or to their imaginative mind-space.

Often activation may be achieved through traumatic events with which they are associated -- as with regimental flags stained with blood from "battlefields of honour". The current significance of such intangibles is evident in the recognition of the critical importance of the "battle for hearts and minds" where previously it had been assumed that hardware and "spin" were sufficient (cf Missiles, Missives, Missions and Memetic Warfare: navigation of strategic interfaces in multidimensional knowledge space, 2001)

There is however another process which has become more accessible (and credible) through which complex sets of information -- presented through symbols -- are integrated in operational conditions (cf G. Jakobson, L. Lewis and J. Buford, An Approach to Integrated Cognitive Fusion, 2004). Studies of this phenomenon focus on the challenge for fighter pilots in navigating in three-dimensional space -- recalling the helicopter inspiration of Arthur Young (The Geometry of Meaning, 1978) discussed in Annex 3.

The question is where one might look for a fruitful interplay of psychoactive symbols with cognitive fusion. One possible response is in the mandalas carefully elaborated for meditation purposes in (Tibetan) Buddhism -- and the subject of extensive study by Carl Gustav Jung (Mandala Symbolism, 1973). The possibility has been explored in relation to a new kind of "reactor" (cf Reactivating a Cognitive Fusion Reactor: imaginal transformation of energy resourcing and notably an annex: Cognitive Fusion through Myth and Symbol Making). A Western variant is the Basque laurburu. That these matters are non-trivial is indicated by the past challenge of the swastika and the possibility of future collective challenges of that kind in an age of "spin".

Knowledge organization: Given the concerns and processes of UIA, what might they encompass (and how) in relating such symbolic foci to other potentially significant organizations of knowledge? Useful possibilities for consideration include:

- **Knowledge classification**: There are of course a multitude of approaches to ordering knowledge (E I Samurin, Geschichte der bibliothekarisch-bibliographischen Klassifikation, Verlag Dokumentation, 1977) of which the UDC was but one. There are a multitude of thesauri and ontologies of varying degrees of bias (Anti-Developmental Biases in Thesaurus Design, 1981). Typically such external ("pigeon-holing") schemes have no internal subjective referents -- a very particular epistemological bias, surprisingly comparable to the classificatory approach of Ken Wilber (as discussed in Annex 3). One response to a more integrative approach to this challenge is that developed by UIA for the Encyclopedia of World Problems and Human Potential, under the notional auspices of UIA -- and currently used online (Functional Classification in an Integrative Matrix of Human Preoccupations, 1982). Although this points to the challenge of identification, it is definitely not psychoactive or fully sensitive to the variety of organizations of knowledge (Systems of Categories Distinguishing Cultural Biases, 1993) of which the mandala is but one.

- **Rosetta stone of meaning**: The work of Arthur Young sought to elaborate a "Rosetta stone of meaning", as discussed in Annex 1 (of which Table 3 is but one possible representation), as with those in the references cited above it. An effort has been made by John Raithel [more] to relate it to the "Standard Model" of modern physics

- **Systematics and syntegrity**: R Buckminster Fuller (Synergetics: explorations in the geometry of thinking, 1975-9) also sought a geometric representation of forces significant to an integrative pattern, most notably through centro-symmetric tensegrity structures (see Documents Relating to Networking, Tensegrity, Virtual Organization; Examples of Integrated, Multi-set Concept Schemes, 1984). Elsewhere this approach was adapted to ordering the strategic dilemmas of the 1992 UN Earth Summit (Configuring Globally and Contending Locally: shaping the global network of local bargains, 1992). Stafford Beer (Beyond Dispute: the invention of team syntegrity, 1994) developed a formal model, built on Fuller's polyhedra idea of systems, and applied to non-hierarchical problem solving.

- **Dodecameral mind**: In a separate study, Fuller's work was related to the challenge of "re-membering" a dodecameral mind (Union of Intelligible Associations remembering dynamic identity through a dodecameral mind, 2005)

- **Comprehensive patterns of wisdom**: The most striking and comprehensive are those elaborated within traditional Chinese culture, and continuing to give rise to reflection and commentary, namely the Tao Te Ching (Hyperspace Clues to the Psychology of the Pattern that Connects in the light of 81 Tao Te Ching insights, 2003), the I Ching (Transformation Metaphors derived experimentally from the Chinese Book of Changes, 1997) and the T'ai Hisian Ching (9-fold Magic Square Pattern of Tao Te Ching Insights: experimentally associated with the 81 insights of the T'ai Hisian Ching, 2006). Of particular interest is the patterning of these insights, potentially indicative of a more comprehensive perspective than that of Arthur Young (Mapping Songlines of the Noosphere: use of hypergraphs in presentation of the I Ching and the Tao te Ching, 2006)

- **Cyclic patterns**: As discussed in Annex 3, the Möbius strip and the torus both offer means of holding richer patterns of potentially intuitive significance. The torus notably enables reframing less cognitively engaging representations such as the matrix-style tables (as in the annexes). (Comprehension of Requisite Variety for Sustainable Psychosocial Dynamics: transforming a matrix classification onto intertwined tori, 2006). The fundamental distinction from conventional "linear" thinking is exemplified by the contrast between the "Gulf Stream" (readily described and understood as a two-dimensional "one-way" process) and the
complex three-dimensional thermohaline circulation (otherwise described in terms of the great ocean conveyor belt, the global conveyor belt, or, most commonly, the meridional overturning circulation) -- complete with complex three-dimensional "twist". As noted in Annex 3, the danger of "linearity" is an unfortunate characteristic of Ken Wilber's presentation of a "one-way" spiritual "conveyor belt" (Integral Spirituality: a startling new role for religion in the modern and postmodern world, 2006). The global oceanic conveyor belt in fact offers a remarkable model (and a symbol of requisite complexity) of what Wilber's spiritual conveyor ought to be. Ironically, whilst Wilber stresses the vital significance of enabling the spiritual conveyor, considerable concern is expressed in parallel at the possibility of an abrupt stopping of the Atlantic Meridional Overturning Circulation as a consequence of climate change (Bill McGuire, Will global warming trigger a new ice age? The Guardian, 13 November 2003). As cycles both are however a challenge to comprehension. Especially intriguing as a complex model, the ocean conveyor belt reconciles several transformations between different forms of "positive" and "negative" (temperature, density, salinity). It is therefore not inappropriate to associate the foreseen sudden disruption to that global conveyor to intuitions of a spiritual Armageddon (Spontaneous Initiation of Armageddon a heartfelt response to systemic negligence, 2004)

- **Integrative symbolism**: One indication of the relevance of such explorations is the challenge of eliciting a psychoactive "surface" (as mentioned above) onto which the complexities of the world's cultures can be meaningfully projected to hold the identity of the whole (The Territory Constrained as the Map: in search of radical design innovations in the representation of human activities and their relationships, 1979). One challenge is the possibility of higher degrees of self-reflexiveness (Hypercomprehension and Hyperdrive: necessary complement to proliferation of hypermedia in hypersociety, 2006) notably as this relates to arguments articulated by Michael Schiltz (Form and Medium: a mathematical reconstruction, Image [&] Narrative, 6, 2003) and by Steven M. Rosen (What is Radical Recursion? S.E.D. Journal: Semiotics, Evolution, Energy, and Development, 2004).

**Symbolic form**: As a potentially ideal symbol, large-scale static depictions of the spherical Earth fail however to honour adequately the cognitive challenge of the many belief systems and ways of knowing. It is, for example, an irony that the necessarily simple, static logo of the United Nations features the laurel crown of leaves given dubious prominence by Imperial Rome. More tragic is the inability to elicit a cognitive "surface" to hold together the mindsets and identities of the conflicting parties in the Middle East -- of which the ridiculous Christian territoriality in the Holy Sepulchre, with its Islamic guardian in a Jewish context, is perhaps the most tragic (cf And When the Bombing Stops? Territorial conflict as a challenge to mathematicians, 2000; Reframing Relationships as a Mathematical Challenge: Jerusalem a Parody of Current Inter-Faith Dialogue, 1997). By comparison, as noted above, the global ocean conveyor is effectively a richer dynamic symbol, central to an endangered planetary dynamic, but indicative of the requisite degree of complexity to reconcile contrasting worldviews and belief systems -- currently endangering the coherence of planetary psychodynamics.

Despite their current importance to faith-based governance and their etymological association with the dynamic process of linking and connecting, it is curious that religions are indeed framed as "worldviews" and "perspectives" (Guidelines for Critical Dialogue between Worldviews, 2006). This implies an essentially static function -- perhaps as a viewing lens on divinity. As such they effectively exclude the dynamics of dialogue with any Other, notably other religions. They can only "clash". As belief "systems", they are closed to each other -- being asystemic in any larger sense. As currently understood, they have no effective commitment to the "pattern that connects" in Bateson's terms. Water, however, and notably the sea, is indeed a valued traditional spiritual symbol worldwide. In the light of the dynamic of the global ocean conveyor as a model, with its many phases and three-dimensional "twists" around the globe (consequent upon positive and negative changes in temperature, density or salinity), a "fluid" understanding of religion could only be articulated in terms of the continuous dynamic between the various modes of engaging in spirituality. This is the qualitative essence of the "pattern that connects". (cf Edward de Bono, I Am Right-You Are Wrong: from Rock Logic to Water Logic, 1992)

The symbolic form able to constitute a "union" of "imaginative associations" would presumably have characteristics such as:

- requisite complexity to integrate a variety of disciplines, ways of knowing and their interrelationships
- a dynamic, necessary for that complexity, that can be comprehended through its formation of seemingly static standing waves as suggested by Chladni patterns or the Mandelbrot set (Psycho-social Significance of the Mandelbrot Set: a sustainable boundary between chaos and order, 2005)
- aesthetic qualities that focus attention both as an attractor and as a mnemonic aid to "re-member" the "pattern that connects" -- potentially enhanced by music (A Singable Earth Charter, EU Constitution or Global Ethic? 2006)
- an action-enabling, or catalytic, capacity of relevance to strategic initiatives
- psychoactive in the sense of enhancing identity within a larger whole

The discussion of the BaGua in Annex 3 is significant as an example of a psychoactive integrative symbol functioning as a form of Rosetta Stone and providing an interface between "external" and "internal" environments. Should its elaboration in the set of hexagrams of the I Ching be understood as a schematic of the dynamics of a Union of Imaginative Associations (Relationship between Hexagrams of the Chinese I Ching, 1983) ? Could "infinite games" be understood in this light (James Carse, Finite and Infinite Games: a vision of life upon positive and negative changes in temperature, density or salinity), a "fluid" understanding of religion could only be articulated in terms of the continuous dynamic between the various modes of engaging in spirituality. This is the qualitative essence of the "pattern that connects". (cf Edward de Bono, I Am Right-You Are Wrong: from Rock Logic to Water Logic, 1992)

**Dependence on metaphor**: The "imaginative associations" of such conceptual tools provide a sense of the "union" constituting the vehicle that is the "Union of Imaginative Associations" (UIA). It is through an appropriately comprehensible configuration that the potential of collective cognitive fusion then becomes apparent -- beyond the preoccupation with "augmenting human intellect", whether individually or collectively. The imaginative nature of this fusion process is significantly dependent on metaphor (cf Metaphors as Transdisciplinary Vehicles of the Future, 1991) especially within any strategic governance processes (cf Documents relating to Metaphor for Governance)

As stressed by Gregory Bateson in concluding a conference on the effects of conscious purpose on human adaptation: "We are our own metaphor" (Mary Catherine Bateson, Our Own Metaphor, 1972). In this respect the insight of Kenneth Boulding (The Image: knowledge...
in life and society, 1956), as an early contributor to general systems thinking, is relevant:

"Our consciousness of the unity of the self in the middle of a vast complexity of images or material structures is at least a suitable metaphor for the unity of a group, organization, department, discipline, or science. If personification is only a metaphor, let us not despise metaphors - we might be one ourselves." (Ecodynamics: a new theory of societal evolution, 1978 p. 345)

How might this be understood with respect to the identity of a "Union of Imaginative Associations"? Possibilities are intimated in:

- Comprehension of Appropriateness, 1986
- Metaphoric Revolution: in quest of a manifesto for governance through metaphor, 1988
- Walking Elven Pathways: enactivating the pattern that connects, 2006

But the challenge is how and why any "union" is dynamically understood as a process that activates insights -- as indicated by authors such as George Lakoff and Mark Johnson (Philosophy in the Flesh: the embodied mind and its challenge to Western thought, 1999 ) or Francisco Varela (Laying Down a Path in Walking: cognition from an enactive viewpoint).

**Operational implications**

**Enactive embodiment**: Significantly consistent with the intimations of Paul Otlet (Monde: essai d'universalisme: connaissance du monde, sentiment du monde, action organisée et plan du monde, 1935), UIA$^2$ may be understood as subsuming the category focus of UIA$^2$ and UIA$^1$. It is consistent with the implied sentiments of the title of the widely appreciated song We are the World (1985), possibly to be articulated as:

- Being the Universe : a metaphorical frontier, 1999
- Personal Globalization, 2001
- Embodying the Sphere of Change, 2001
- My Reflecting Mirror World: making Joburg worthwhile, 2002
- Psychology of Sustainability: embodying cyclic environmental processes, 2002
- En-minding the Extended Body: enactive engagement in conceptual shapeshifting and deep ecology, 2003

Such insights may prove to be a key to the mindset required to engender remedial transformation of the world. The conventional attitude reinforces an instrumental approach to the exploitation of a separate world -- a form of institutionalized non-responsibility for a world that is somebody else's property -- "not mine". This is to be contrasted with an attitude through which the experienced phenomena of the "external" world are significantly to be understood as a "magical" mirror of the processes through which one "imagines" one's own identity and integrity -- with a degree of responsibility for actively seeing things whole.

<table>
<thead>
<tr>
<th>Classic Zen tale illustrative of the challenge of engaging with the environment through oneself in order to remedy imbalance</th>
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<tbody>
<tr>
<td>A rainmaker is invited to come to a rural village, to bring rain -- for the village is experiencing drought. The rainmaker requests a cottage far from the village, and asks not to be disturbed. Three days later, rain and snow fall on the village. The rainmaker explains that he did not bring the rain. As he had felt immediately infected by the imbalance of the village people upon arrival, he took refuge to balance himself -- naturally balancing the outside world through that process -- and it rained.</td>
</tr>
</tbody>
</table>

Such considerations reconnect with the traditional insights of indigenous communities through which the surrounding world is the encoding or embedding of a knowledge map (cf Darrell A. Posey, Cultural and Spiritual Values of Biodiversity, 1999; David Abram, The Spell of the Sensuous: perception and language in a more-than-human world, 1997; Jeremy Narby, The Cosmic Serpent : DNA and the Origins of Knowledge, 1999). This is associated with a process of land nám, coined by Amanda Coomaraswamy (The Rg Veda as Land-Nama Book, 1935), to refer the Icelandic tradition of claiming ownership of uninhabited spaces through weaving together a metaphor of geography of place into a unique mythic story. This territorial appropriation process, notably practiced by the Navaho and the Vedic Aryans was further described by Joseph Campbell (The Inner Reaches of Outer Space: metaphor as myth and religion, 1986):

Land nám ("land claiming or taking") was [the Norse] technical term for this way of sanctifying a region, converting it thereby into an at once psychologically and metaphysical Holy Land... Land nám, mythologization, has been the universally practiced method to bring this intelligible kingdom to view in the mind's eye. The Promised Land, therefore, is any landscape recognized as mythologically transparent, and the method of acquisition of such territory is not by prosaic physical action, but poetically, by intelligence and the method of art; so that the human being should be dwelling in the two worlds simultaneously of the illuminated moon and the illuminating sun. (p. 34)

As Campbell notes, this is a variant of the archetype of a "promised land", namely "a spiritual region, or condition of mind, wherein phenomenal forms are recognized as revelatory of transcendence'. Such a worldview justifies recognition of "songlines" and associated processes of "singing the land" in order to sustain it, as with Australian Aborigines. Curiously geographical renaming by colonial and post-colonial regimes may be understood as "appropriative naming" towards such an end -- for the colonizers. Similarly, however inadvertently, scientific naming may seek to appropriate, in support of a particular worldview, the phenomena characterizing a coherent indigenous knowledge system. The most dubious abuse of such appropriative naming is highlighted by the case of the indigenous tribes of North America (Cornel Pewewardy, Renaming Ourselves On Our Own Terms: race, tribal nations, and representation in education, Indigenous Nations Studies Journal, 1, 1, Spring 2000) or, more generally, by prohibition of indigenous languages as psychoactive
templates of cultural identity.

Especially intriguing at this time is the possibility that virtual environments, whether imaginative "vehicles" like UIA, or "real estate" in Second Life (Virtually Real Estate, Financial Times, 3 March 2007) may be susceptible to being rendered psychoactive in a similar manner (Sacralization of Hyperlink Geometry, 1997). How then might it be appropriate -- if it is -- to distinguish between engaging in such a process "seriously and for real" as opposed to "playfully"? (Humour and Play-Fullness: essential integrative processes in governance, religion and transdisciplinarity, 2005; Playfully Changing the Prevailing Climate of Opinion Climate change as focal metaphor of effective global governance, 2005).

"Craziness": In pointing towards the relevance of "wisdom" (Global Strategic Implications of the Unsaid: from myth-making towards a wisdom society, 2003; The Isdom of the Wisdom Society: embodying time as the heartland of humanity, 2003), UIA may for some be characterized by what has been termed "crazy wisdom" -- intentionally transgressive acts, in thought if not in actual practice. Humour may be used precisely for this reason to elicit new levels of insight -- exemplified by the tragi-comic Sufi tales of the Mullah Nasruddin [more], the "crazy wisdom" and "spiritual foolishness" promoted by Taoists such as Chuang Tzu as paradoxical "ways of knowing", or the deadly paradoxes and savage black humour of Tukaram (Recognized Role of Humour: in politics, leadership, religion and creativity, 2005).

In this light -- given the call for radically new approaches in response to the challenges of the times (and their urgency) -- there is every possibility that the imaginative craziness required is of a different order than that conventionally envisaged by international institutions and their supporting "think tanks" (Meta-challenges of the Future: for networking through think-tanks, 2005; "Tank-thoughts" from "Think-tanks" metaphors constraining development of global governance, 2003). Such a point was well made in the much-quoted statement by physicist Niels Bohr in response to Wolfgang Paul:

"We are all agreed that your theory is crazy. The question which divides us is whether it is crazy enough to have a chance of being correct. My own feeling is that it is not crazy enough." To that Freeman Dyson added: "When a great innovation appears, it will almost certainly be in a muddled, incomplete and confusing form. To the discoverer, himself, it will be only half understood; to everyone else, it will be a mystery. For any speculation which does not at first glance look crazy, there is no hope!" (Innovation in Physics, Scientific American, 199, 3, September 1958)

If the challenges of a world "gone crazy" are more complex than those faced by physicists, with what "craziness" is the "union" of what "associations" to be imagined -- and engaged in?

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