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Encycling Problematic Wickedness for Potential Humanity

Imagining a future Encyclopedia of World Problems and Human Potential

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Encycling Problematic Wickedness and Potential Humanity?

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Introduction

In 1972 a project was instigated to produce a compilation of world problems as variously perceived by several thousand international organizations and constituencies profiled in the *Yearbook of International Organizations* of the [Union of International Associations](#). This was in reaction to the extremely selective focus of the project of the [Club of Rome](#) which took the form of the widely-publicized report on *The Limits to Growth* (1972). That focus of the Club was associated with some degree of internal dissent resulting in its disassociation from *The Predicament of Mankind* (1970), as articulated by [Hasan Ozbekhan](#). The focus also later resulted in the separate initiative of [Ervin Laszlo](#) through which the [Club of Budapest](#) was created. These various threads are separately reviewed (*Club of Rome Reports and Bifurcations: a 40-year overview*, 2012; [Alexander Christakis](#), *A Retrospective Structural Inquiry of the Predicament of Mankind Prospectus of the Club of Rome*, 2006).

The [World Problems Project](#), as it was known, only became possible in 1972 through collaboration with [Mankind 2000](#) -- a body with a specific concern for human development, namely the concern neglected by the Club of Rome. The preoccupation with "Mankind" had been the focus of the International Futures Research Inaugural Conference (Oslo, 1967) convened by Mankind 2000 (founded in 1964), on the instigation of [James Wellesley-Wesley](#), and resulting in publication of a selection of the papers (edited by [Johan Galtung](#) and [Robert Jungk](#), *Mankind 2000*, 1969). Contrasting "world problems" and "human development" within the same context suggested a necessary degree of complementarity whose nature remained to be discovered. The result was the *Yearbook of World Problems and Human Potential*, published in 1976 -- then seen as complementary to the *Yearbook of International Organizations*.

Since that period, "world problems" and "human potential" have been variously combined and profiled in the form of a succession of editions of what was renamed as the *Encyclopedia of World Problems and Human Potential*. With further support from Mankind 2000, this notably included substantial profiling of the many strategies undertaken or envisaged by international organizations within a [Global Strategies Project](#). An online variant has been produced through funding from the European Commission, with a special emphasis on visualization of the complex networks relating problems, strategies and organizations in particular. A proposal for a further extension was approved for funding by the World Bank, although that funding did not become available due to other urgent priorities at the time. These developments are conveniently described in the [Wikipedia profile](#) on the Encyclopedia.

With the numerous possibilities now offered by technology and the web, the question is how it might be appropriate and fruitful to reframe for the future an "Encyclopedia of World Problems and Human Potential". The relevance of the question lies in the questionable ability of the governance of a global knowledge-based civilization to engage with "problems", using viable "strategies", such as to enhance "human potential". After decades of initiatives by international bodies and their local counterparts, there is a case for asking whether there is a need to "think otherwise" in order to achieve what has proven to be seemingly impossible. As increasingly recognized, the world would appear to be sliding into an ever more chaotic condition -- with a strong possibility of financial, environmental, and other forms of

collapse.

The purpose here is to focus on the form that "thinking otherwise" might take -- given the learnings associated with production of an *Encyclopedia of World Problems and Human Potential* over decades. Appropriate guidance for such reflection is provided by the much-cited adage of [George Santayana](#): *Those who cannot remember the past are condemned to repeat it*. Expressed otherwise, the issue might be framed as the nature of the necessarily "deadly question" relating to the future, as separately discussed (*World Futures Conference as Catastrophic Question: from performance to morphogenesis and transformation*, 2013).

What recent instances of "new thinking" by the international community can be cited as an inspiration to the world -- capable of eliciting collective confidence in the future?

Learnings from the past?

Any approach to the nature of learnings from the past faces the widely recognized challenge of information overload and constrained attention time. A major learning is that even consideration of such learning is a challenge. A report to the Club of Rome in 1980 proclaimed that there were no such limits (James W Botkin, Mahdi Elmandjra and Mircea Malitza, *No Limits to Learning; bridging the human gap*, 1979). A critical review focused on its omission of consideration of collective memory (*Societal Learning and the Erosion of Collective Memory*, 1980). This followed an earlier exercise in identifying more general limits (*Limits to Human Potential*, 1976) -- a theme explored by others (Ervin Laszlo, *Inner Limits of Mankind: heretical reflections on today's values, culture and politics*, 1989; [Peter Seidel](#), *Invisible Walls: why we ignore the damage we inflict on the planet... and ourselves*, 2001).

In the context of this argument, the review of the questionable learnings from thirty years of Club of Rome reports is itself indication of a challenging failure of collective learning (Graham Turner, *A Comparison of the Limits to Growth with Thirty Years of Reality*, 2007).

The "meta-challenge" is then one of how to clarify the failure of learning in a succinct manner. One approach is to provide a focus through strategic questions (*Strategic Implications of 12 Unasked Questions in Response to Disaster*, 2013). This had been a late consideration in development of the Encyclopedia (*Generating a Million Questions from UIA Databases: Problems, Strategies, Values*, 2006).

Other possibilities for consideration can be variously argued:

- *Lipoproblems: Developing a Strategy Omitting a Key Problem -- the systemic challenge of climate change and resource issues*, 2009
- *Global Strategic Implications of the "Unsaid"*, 2003
- *Enabling Collective Intelligence in Response to Emergencies*, 2010
- *Disastrous Floods as Indicators of Systemic Risk Neglect: implications for authoritative response to future surprises*, 2009
- *Anticipating Future Strategic Triple Whammies -- in the light of earthquake-tsunami-nuclear misconceptions*, 2011
- *Superquestions for Supercomputers: avoiding terra flos from misguided dependence on teraflops?* 2010
- *Critical thinking vs. Specious arguments: web resources*, 2001
- *Engaging with Questions of Higher Order: cognitive vigilance required for higher degrees of twistedness*, 2004
- *Remedial Capacity Indicators versus Performance Indicators*, 1981
- *Embodiment of Change: Comprehension, Traction and Impact? Discovering enabling questions for the future*, 2011
- *Recognizing the Psychosocial Boundaries of Remedial Action: constraints on ensuring a safe operating space for humanity*, 2009

Such arguments themselves fail to address the need for succinctness, as can be potentially rendered through "mappings", as follows -- notably onto complex polyhedral forms:

- *Convergence of 30 Disabling Global Trends: mapping the social climate change engendering a perfect storm*, 2012
- *Map of Systemic Interdependencies None Dares Name: 12-fold challenge of global life and death*, 2011
- *Mind Map of Global Civilizational Collapse: why nothing is happening in response to global challenges*, 2011
- *Mapping the Global Underground: articulating Insightful Population Constraint Consideration (IPCC)*, 2010
- *Configuring Globally and Contending Locally: shaping the global network of local bargains by decoding and mapping Earth Summit inter-sectoral issues*, 1992
- *Complementary Knowledge Analysis / Mapping Process*, 2006
- *Towards Polyhedral Global Governance: complexifying oversimplistic strategic metaphors*, 2008

Some more complex possibilities have been explored with respect to that *Encyclopedia* initiative:

- *Experimental SVG Representations of Entity Interrelationships* 2007
- *Preliminary NetMap Studies of Databases on Questions, World Problems, Global Strategies, and Values*, 2006)
- *Simulating a Global Brain using networks of international organizations, world problems, strategies, and values*, 2001)

Of potential interest is whether future simulations will enable more creative learning in relation to such matters -- and what will be designed out of such possibilities, perhaps inadvertently? Will the projected "[Living Earth Simulator](#)", of the [FuturICt](#) EU research initiative -- a 10 year 1 billion EUR program "to explore social life on earth and everything it relates to" -- offer more comprehensible maps of relevance to governance than those of the *Limits to Growth* project in 1972 (*Social Supercomputing Is Now*, *Science News Online*, 26 May 2010)? If not, **will the simulation be able to show why not** -- in the light of issues discussed separately (*Considering All the Strategic Options: whilst ignoring alternatives and disclaiming cognitive protectionism?* 2009)?

With respect to envisaging remedial capacity, of particular interest is **whether simulations of any kind will embody explicitly the manner in which their methodology and relevance will be challenged** -- and even denied. The need is evident from the extensive

comment by [Nafeez Ahmed](#) (*Did Nasa fund 'civilisation collapse' study, or not?*, *The Guardian*, 21 March 2014) on the arguments of [Keith Kloor](#) (*The Well-Intentioned, Misguided Eco-Doomers*, *Discover*, 20 December 2013) regarding Ahmed's earlier comment (*Nasa-funded study: industrial civilisation headed for 'irreversible collapse'?* *The Guardian*, 14 March 2014). The dispute concerns a new study, purportedly sponsored by NASA's Goddard Space Flight Center, highlighting the prospect that global industrial civilisation could collapse in coming decades due to unsustainable resource exploitation and increasingly unequal wealth distribution. The study focuses on how a 'perfect storm' of crises could unravel the global system -- in the light of new model developed by natural and social scientists. In challenging its conclusions, Kloor questions whether the model was in fact sponsored by NASA. The cross-disciplinary HANDY model ([Human And Nature DYnamical](#)) project, as described by Ahmed, was led by applied mathematician [Safa Motesharrei](#) of the US National Science Foundation-supported [National Socio-Environmental Synthesis Center](#). It is scheduled for publication in the journal *Ecological Economics*.

Of relevance to imagining a future Encyclopedia, the above considerations gave rise to a "rationale" (*Encyclopedia Illusions: rationale for an Encyclopedia of World Problems and Human Potential*, 1991). The context of global summitry, on which hopes have been so enthusiastically projected, is also a source of bitter learning (*Insights for the Future from the Change of Climate in Copenhagen*, 2010). Never again?

Requisite craziness?

In this context it might then be asked what form any new initiative could take as a vehicle of fruitful hope regarding viable outcome. The question could even be expressed otherwise. How would who engage with what -- were an initiative of a higher and more appropriate order to be presented? The instigators might be a group of geniuses, a group of the spiritually enlightened, a group of the most powerful, a group of people of proven goodwill, or one of the prophesied Messiahs -- or by any combination of these. The issue is whether seemingly naive assumptions regarding the capacity to recognize its viability -- and to engender sufficient uptake -- are to be considered part of the problem?

More radically, in the light of the cutting edge of imagination and visual effects now offered by physics in the quest for a [Theory of Everything](#), consideration can be usefully given to points made in the course of that quest:

- Physicists proudly refer to the much-quoted statement by [Niels Bohr](#) in response to [Wolfgang Pauli](#):

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, No. 3, September 1958)

- With regard to comprehension of quantum mechanics as the widely influential framework for articulating the nature of reality, the challenge has been usefully highlighted by Philip Ball (*Will we ever... understand quantum theory?* *BBC Future*, 25 January 2013):

If the baffling behaviour of subatomic particles leaves you scratching your head with confusion, don't worry. Physicists don't really comprehend it either.... Quantum mechanics must be one of the most successful theories in science. Developed at the start of the twentieth century, it has been used to calculate with incredible precision how light and matter behave - how electrical currents pass through silicon transistors in computer circuits, say, or the shapes of molecules and how they absorb light. Much of today's information technology relies on quantum theory, as do some aspects of chemical processing, molecular biology, the discovery of new materials, and much more. Yet the weird thing is that no one actually understands quantum theory. The quote popularly attributed to physicist [Richard Feynman](#) is probably apocryphal, but still true: ***If you think you understand quantum mechanics, then you don't.*** That point was proved by [a poll among 33 leading thinkers](#) at a conference in Austria in 2011. This group of physicists, mathematicians and philosophers was given 16 multiple-choice questions about the meaning of the theory, and their answers displayed little consensus. [*emphasis added*]

The question with regard to the much-sought "new thinking" with respect to "global governance", and the governance of globalization, is whether any theory currently envisaged is "crazy enough" -- as may well be essential. If understanding is considered a requisite, there is the possible corollary to Feynman's quote: ***If it can be readily understood, then it is probably inappropriate to the nature of the challenge -- and therefore not worth undertaking.***

To break out of the current pattern it is therefore useful, as an exercise, to deconstruct the title of the original Encyclopedia initiative, and to endeavour to reframe its constituent elements and their implication. This could be understood as using the past interweaving of the sets of global problems and strategies -- in the light of human values and potential -- as a metaphor for the wider challenge of global society. The process could also call into question modes of engendering content and attributing intellectual copyright -- given the fundamental issues these raise.

Further reflection could be fruitfully provoked by the question as to who would claim to understand the original Encyclopedia and whether that understanding then falls under Feynman's stricture.

Problems, problematique and wickedness?

What is it useful to consider to be a "problem"? The term is widely and readily used whether by individuals, by groups, or in the governance of countries and regions. Mathematics gives special recognition to "unsolved problems". In the policy world particular attention may be given to "[wicked problems](#)" -- where wickedness is indicative of a degree of unboundedness, in contrast with those problems which science prefers to recognize. Many groups are however exposed to "problems" which are effectively ignored both by science and those attentive to "wicked problems" from a policy perspective.

In a separate discussion of *Challenges More Difficult for Science than Going to Mars -- or exploring the origins of the Universe or of Life on Earth* (2014), particular attention is given to *Wicked problems and the renunciation of science*. There, with reference to the extensive policy literature cited on "wicked problems", it was concluded that:

Whether seen as "wicked" or not, in order to encompass the variety of problems, the [World Problems Project](#) of the online *Encyclopedia of World Problems and Human Potential* ([commentary](#)) took the approach of profiling and interrelating some 56,000 "problems" as perceived by international constituencies, irrespective of how seriously they were variously taken. These were matched with profiles of some 32,000 "strategies" envisaged as remedial responses through the related [Global Strategies Project](#). Particular attention was devoted to the detection of [feedback loops](#) amongst the problems -- presumably an indicative characteristic of their "wickedness". This suggests that that initiative might be more appropriately renamed as the *Encyclopedia of Wicked Problems and Human Potential*.

The systemic interconnectedness of the problems profiled in the World Problems Project encouraged analysis of the extent to which they constituted [feedback loops](#) in a cybernetic sense, especially those tending to aggravate problems within the loop. In this sense it is those loops which embody the "wickedness". They were termed "vicious" within that context (*Analysis: Vicious cycles and loops; Examples of vicious problem cycles and loops*). The question raised was how to design strategies capable of encompassing and containing those loops (*Sustainable Strategies vs. Cycles of Vicious Problems*, 1995). Also of interest was how to visualize such loops in order to render their vicious nature more comprehensible and to match them with remedial loops of strategies (*Feedback Loop Analysis in the Encyclopedia Project*, 2000; *Feedback Loops Linking World Problems*).

Although "**wickedness**" is explicitly disassociated from "evil" in the policy literature, there is a case for recognizing some qualities of "problems" to which the qualification "evil" tends to be readily applied:

- those suffering from a "problem" may readily qualify it as "evil" -- whether natural disasters, or individual disease and handicap, for example
- being subject to a "problem" may be inherently incomprehensible, challenging the foundations of a worldview framed as the contrary of "evil"
- the complexity of problems, recognized in the case of "wicked problems", may elude comprehension and explanation of any adequacy -- hence potentially "evil"
- the "wickedness" of a problem for any conventional discipline may lie specifically in the manner in which it is not neatly confined within the bounds and conceptual mandate of that discipline

Missing from these to some degree are:

- the sense of irrationality, defying all logic,
- the challenge to an objective methodology which implicates the subject in questionable objectification of the problem as an externality
- the sense of "dancing with shadows", engendering the problems perceived, to some degree
- the process of [enantiodromia](#) whereby the quality of what has been previously framed as abhorrently problematic in others is taken on (as is so evident in the the foreign policy of major countries)

Most problems are problematic in that there will always be other constituencies perceiving them to be solutions -- as in the engagement between industrialists and environmentalists. As exemplified in the relation between the World Economic Forum and the World Social Forum, each frames its approach to be a solution and that of the other to be a problem. Any sense of "wickedness" is then potentially problematic in that what is framed as a "problem" by one constituency -- even a wicked problem -- may well be perceived as a remedy by another. This is characteristic of the dynamic between opposing political parties and ideologies -- each quite prepared to label the other as essentially "evil".

There is every possibility that some would choose to frame *Wikipedia* as *Wikipedia* (or perhaps *Wickypedia*) -- given perceptions of its problematic coverage of some topics as forms of "wickedness" (beyond that recognized by policy analysts), which could be more appropriately characterized as "evil".

There is some irony to the fact that religion, especially Christianity has been specifically concerned with "wickedness" and "evil". Presumably with the full support of his science advisors, it was to evil that Barack Obama specifically referred in the course of his acceptance of the Nobel Peace prize: *For make no mistake: evil does exist in the world.* (*Remarks by the President at the Acceptance of the Nobel Peace Prize*, 10 December 2009). This is consistent with the current controversies regarding evil, variously considered to be embodied by the US, its critics, and its opponents.

The strangeness of the current period with respect to any problematic wickedness is evident (at the time of writing) from the focus on preparations for the [15th Global Conference on Perspectives on Evil and Human Wickedness](#) (Praha, March 2014) -- announced by the Inter-Disciplinary.net.

Three monkeys of global governance?



Classic image previously presented in
Monkeying with Global Governance:

Emergent dynamics of three wise monkeys in a knowledge-based society (2011)

Ensuring identity through property and possession?

Ensuring restricted availability: To a surprising degree both problems and solutions may be framed and considered as the "**intellectual property**" of individuals or groups -- namely the creations of the mind for which **exclusive rights** are recognized. This is evident in the **copyright** restrictions under which reports define and document problems and propose solutions to them. Significant reports are necessarily subject to copyright -- restricting their dissemination.

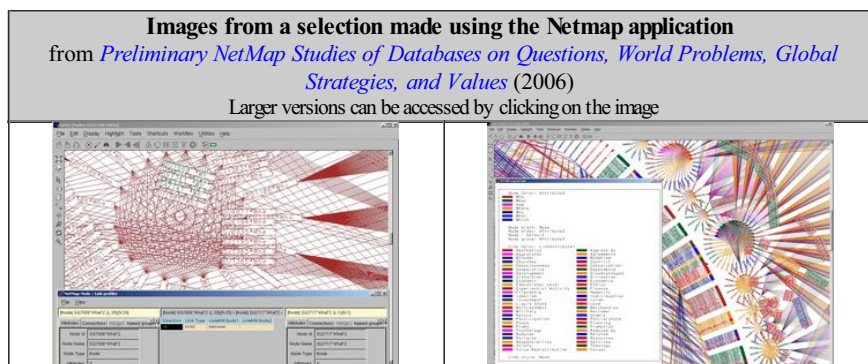
Expressed otherwise, both problems and solutions may be considered the reserved territory (or "turf") of individuals, groups or disciplines. Solutions may only be made available under **registered trademark** and **licensing arrangements**. It is then quite challenging (and costly in legal terms) to define copyright such as to maximize accessibility and know-how in order to ensure implementation of remedial strategies.

A hypothetical example of an extreme situation may be used to highlight the challenge. Few would deny themselves the opportunity of holding the world to ransom with the patented solution to a disastrous problem. The widespread ambition to acquire control of some form of "**killer application**" is one way of framing the current situation. In the midst of the urgency of the ultimate crisis of crises, many would be holding out for just recompense for use of intellectual property they define as their legitimate possession.

Strangely the focus on world **cultural heritage**, and the counterpart to **World Heritage Sites** in the form of **intangible cultural heritage**, has not been extended to strategically vital insights. Despite the promotion of open source initiatives (like *Wikipedia*), the possible significance of a "viability application" for global survival is not highlighted as a necessary counterpart to a "killer application" -- irrespective of what is "placed in the **public domain**" under various circumstances.

The situation is exemplified by the copyright issues associated with the *Encyclopedia of World Problems and Human Potential* or the many individual reports to the Club of Rome over 40 years. The difficulties go further in that the identity of individuals and groups is intimately related to their intellectual property claims -- as is the case with physical property, exemplified by the many territorial conflicts around the world: no territory, no identity.

One consequence in practice is that software which might otherwise be used to elicit an integrative perspective on the global problematic, from the set of Club of Rome reports, cannot be used because of copyright claims with respect to those reports. Another relevant example is the precautionary exclusion by *Wikipedia*, from its extensive profile on the Encyclopedia, of an illustration reflecting one of its unique experiments in visualizing the complexity of its content to facilitate comprehension. The illustration (right-hand image below) had figured in that profile from 2011-01-14 to 2013-06-17



Ownership of insightful definitions: Who can claim ownership of problem definitions or the solutions advocated? The challenge is evident in the intellectual property governing the definitions of words in any dictionary or encyclopedia. The meaning of words, as articulated, is the unchallenged possession of certain publishers -- however this may be currently questioned in the debate regarding **Science 2.0**.

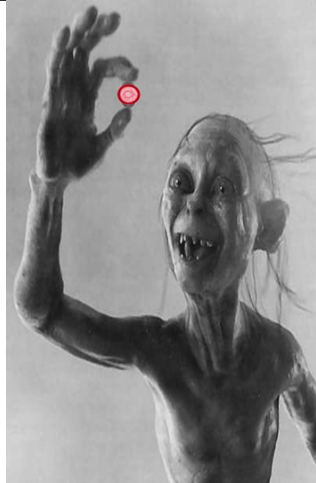
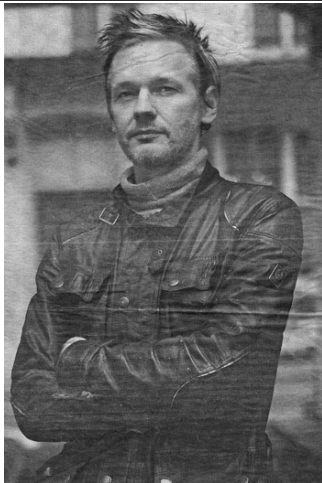
The difficulties go further in that the wisdom of the world, through whatever media it is articulated, is now effectively the possession of some individual or group -- whatever the means of circumventing such constraints in practice ("fair use", etc). The hypothetical wisdom emanating from any prophesied Messiah would in all probability be released -- with **all rights reserved**. The situation is already evident with respect to the current writings of any spiritual leader or guru. The issue has been provocatively challenged by provision for **all rights reversed** [sic].

Dysfunctional complexity: A significant consequence of the preoccupation with intellectual copyright is the manner in which competing initiatives (dictionaries, encyclopedias, etc) are engendered in parallel -- each holding copyright over their articulations. As competing initiatives, at the instigation of individuals or groups whose identities are associated with them, each must necessarily deprecate the

quality of the other -- and by inference the identity sustaining the initiative. This can be interpreted as playing out with implications at the global level as a consequence of the possessive obsessions of individuals and groups. **Intellectual property, and the security it offers, currently takes precedence over any other consideration.**

Questionable secrecy: The situation is further complicated by the manner in which intellectual property is intertwined with secrecy. This may well continue to have its most profound significance in the case of scriptural texts, variously esteemed as sacred. With continuing discoveries (as with the [Dead Sea Scrolls](#)), variously controlled by parties deeply concerned at the implications of potential reinterpretation of those texts, the issue of whether those considered sacred have been "copied right" is of considerable importance, with major strategic implications (Haim Watzman, [Qumran Controversy, Archaeology](#), October 1997; Will Varner, [The Men of Qumran: Description and Controversy of the Scrolls, SharperIron Forums](#), 2012). There is the further issue of whether the Word of God ever "falls out of copyright" (into the [public domain](#)), or ceases to be the intellectual property of his mandated representatives.

More recently, the issue of government secrecy has been raised by the [disclosure of diplomatic cables by Wikileaks](#). This is now framed as theft of government property -- irrespective of the value of the knowledge thereby revealed with regard to understanding by global society of the nature of that society and its challenges. The situation was previously caricatured through juxtaposition of the following images ([WikiLeaks and the First Global Condom War: political awakening through asymmetric psychodrama: US versus Assange](#), 2010).

Caricatures in the Wikileaks psychodrama with "condom" suggestive of both "confidence domination" and "conception domination"	
US with Condom -- the Precious One? (once like all of us, but transformed by its possession into an agent of the Dark Lord)	Julian Cyberwalker -- agent of the Force for Light? (a.k.a. Ned Kelly of Cyberspace)
	
<i>Or is this Julian Assange?</i>	<i>And would this then be US?</i>

Corruption: The psychodrama, to which reference was made, focused on [Gollum](#) (in the left-hand image) from the widely appreciated [Lord of the Rings](#) (1954-55) of [J. R. R. Tolkien](#). Gollum had been corrupted by his exclusive possession of the [One Ring](#) -- his "precious". It is described in an earlier story, [The Hobbit](#) (1937), as a [magic ring of invisibility](#) -- appropriate to the stealth characteristic of government secrecy. In the sequel, Tolkien ascribes to the Ring a darker character, with malevolent power going far beyond conferring invisibility: it was created by [Sauron](#) the Dark Lord as part of his design to win domination over [Middle-earth](#). The eye of Sauron can be imagined as peering through the One Ring -- reminiscent of the tale by Tolkien's colleague, [C. S. Lewis](#) ([That Hideous Strength: a modern fairy-tale for grown-ups](#), 1945). The right-hand image evokes the hero of the [Star Wars](#) (1977) mythology, so valued by the young.

Such imaginative imagery is meaningful to the young but completely meaningless to those of the mindset engendering the global chaos in which the young are obliged to live.

The issue with respect to the encirclement (or "ring-fencing") of intellectual property is to what extent possession thereof merits a degree of comparison with the corrupt condition it brought upon Gollum. In the psychodrama explored with respect to government secrecy, the Ring was portrayed as corresponding to the protective function of a condom -- potentially to be extended to the conceptual contraception which copyright ensures in secret.

Underside of global society: Such dynamics play out in failure to acknowledge the determining influence of quarrels between initiatives and between their active instigators, as exemplified by relations between the bodies named in the introduction above as the context from which the Encyclopedia emerged.

There are no useful accounts of the problematic relations over decades between bodies variously concerned with issues from the perspective of: the future, international relations, global governance, peace, environment, interdisciplinarity, interfaith, and the like. Anecdotal accounts may occasionally be available, possibly in contested biographies. Copyright disputes, legal proceedings, and bankruptcies may leave some trail.

Unfortunately the lack of reliable accounts offers every encouragement to those who prefer to assume that such dynamics are of

negligible consequence -- in making proposals for a new initiative. More awkward is the extent to which such unstated differences reflect unexamined differences in style. These can be usefully caricatured (*Epistemological Challenge of Cognitive Body Odour: exploring the underside of dialogue*, 2006). At best they can be distinguished as axes of cultural bias and preference (*Systems of Categories Distinguishing Cultural Biases*, 1993). The pattern is of course evident in the epic quarrels between prominent scientists, as separately noted (*Knowledge Processes Neglected by Science*, 2012). The case between religions may be even more dramatic (*Learnings for the Future of Inter-Faith Dialogue*, 1993).

The unreal significance of the untold tales is of far greater significance than the reality of what many achieved -- as framed by copyright provisions. The mysterious "interpenetration" and "conflation" of the Club of Rome, WAAS and the Sri Aurobindo Ashram is a tale worthy of the mystery novels in the series by Dan Brown (*The Da Vinci Code*, 2003; *The Lost Symbol*, 2009).

WIPO / OMPI: The challenges in thinking otherwise about the intellectual property issues of an Encyclopedia can be usefully reframed on a global scale by those with respect to the **World Intellectual Property Organization** (WIPO). This was purportedly established "to encourage creative activity, to promote the protection of intellectual property throughout the world". Following the arguments above, the initials might be more appropriately indicative of a World Ignorance Promotion Organization. The French variant, OMPI, could then be understood as the Organisation Mondiale pour la Promotion de l'Ignorance. The English initials are appropriately consistent with the effective operation of copyright restrictions in that they ensure collective memory wipe -- with "WIPO" reminiscent of a household cleaning product.

Collective memory is systematically "wiped" through the severe restrictions on the dissemination of information of intellectual value -- until its potential relevance has been long forgotten and the content is released from those restrictions, many decades later. Rather than "encourage creative activity", WIPO ensures that any knowledge generated effectively increases the relative ignorance of the wider world through the manner whereby access to it is restricted. Paradoxically, constrained in this way, creative activity is indeed encouraged amongst those acting in ignorance in order to "rediscover the wheel" for themselves -- even if they cannot protect it.

The desirable global world of future property -- as with that of a reframed Encyclopedia -- is however delightfully suggested for mnemonic purposes by those same English and French initials, but only when regrouped as syllables, understood phonetically:

Mnemonic reframing of global intellectual property?			
WIPO		< >	OMPI
WHY? as fundamental philosophical question	PO as lateral thinking Edward de Bono (<i>Po: Beyond Yes and No</i> , 1973) as separately discussed <i>(Categorical Straightjackets PO: a catastrophe suggestion for a de-patterning device, 1974)</i>		OM: as sound of all-encompassing consciousness engendering creation of a circle and its diameter PI as an irrational constant defining the relationship between the circumference and its diameter
critical thinking	transcendental thinking		engendering coherence engagement with wholeness

Global "world", or requisite topology of higher dimensionality?

Flat or spheroid? Comprehension of the "globality" of the world has become a comfortable assumption -- despite efforts to "flatten in" for even greater comprehensibility, as separately discussed (*Irresponsible Dependence on a Flat Earth Mentality -- in response to global governance challenges*, 2008).

The question is avoided as to whether the complexity of a "global society" can be adequately and appropriately mapped onto a sphere or its projections. The issue is especially evident in assumptions regarding the "globality" of knowledge -- at a time when knowledge is widely recognized to be fragmented by specialty, with little effort or motivation to elicit any more integrative framework. It could be said that many dwell comfortably on the flattened portion of the Earth that they choose to recognize as sufficiently adequate for their worldview.

Multidimensional reality: And yet, at the cutting edge of clarification of the nature of reality, physics -- and especially astrophysics -- envisages the most imaginative (if not fantastic) articulations of a multidimensional reality in which individuals and society are purportedly embedded. Every topological possibility is explored in that respect -- notably in defining the [shape of the universe](#).

Shape of global society? The need for such imaginings, and the highly acclaimed justifications in support of them, suggests the need for analogous reflection on a more imaginatively adequate "shape of global society" -- especially one that is upheld as knowledge-based. Conventional assumptions associated with a sphere may indeed be completely inadequate -- "not fit for purpose" -- even to intuited recognition of its complexity.

The point can be partially made by reference to the case made by Oxfam for a doughnut model appropriate to ordering societal response to global challenges, as separately discussed (*Exploring the Hidden Mysteries of Oxfam's Doughnut: recognizing the systemic negligence of an Earth Summit*, 2012).

Topology: The doughnut can of course be understood in geometrical terms as a torus, suggesting related arguments of relevance (*Implication of Toroidal Transformation of the Crown of Thorns: design challenge to enable integrative comprehension of global dynamics*, 2011; *Comprehension of Requisite Variety for Sustainable Psychosocial Dynamics: transforming a matrix classification onto intertwined tori*, 2006).

More generally the issue can be understood as one of topology, as notably articulated by Steven M. Rosen (*Topologies of the Flesh: a multidimensional exploration of the lifeworld*, 2006; *Dimensions of Apeiron: a topological phenomenology of space, time, and individuation*, 2004). Rosen is very attentive to the relevance of the paradoxical implications of the **Klein bottle**. These lend themselves to other framings of the challenge of interacting with "globality" (*Intercourse with Globality through Enacting a Klein bottle*, 2009).

All such arguments suggest the possible need to recognize that efforts to articulate problems and solutions within a conventional three-dimensional reality -- whether global or carefully flattened for convenience -- are doomed to failure and guaranteed inadequacy. The paradox necessarily includes the desire of many to continue to assume that they can dwell satisfactorily within such constrained geometry -- despite the challenge of responding to problems which cannot be adequately explained within those contexts. There is a need for [backward compatibility](#) with respect to emerging knowledge.

"World"? Whose world? Any consideration of a future *Encyclopedia of World Problems* merits the challenge: "whose world"? Whilst "world problems" are a useful abstraction with regard to the collective, meriting exploration, the issue for any individual or group is the manner in which their own "world" is understood as bounded in their daily reality. How better to frame and engage with the problems in "my world"? This recognition also calls for consideration of the cognitive nature of "globality" -- especially in the sense of its integrative coherence. It is indeed possible that the sense of "world problem", as corresponding to a consensual collective reality, could be more fruitfully understood as an illusion -- and usefully to be explored as such.

This framing also calls for recognition of "world-making", namely how individuals and groups create their world -- the world they live in -- irrespective of how it relates to the world's of others or the "universe" in which all these worlds are embedded. The process of world-making was notably a theme explored by [Nelson Goodman](#) (*Ways of Worldmaking*, 1978) and discussed separately (*Identity, Possessive World-making and their Transformation Dynamics*, 2012). As noted by [Mikhail Epstein](#) (*The Art of World-Making, Philosophy Now*, January/February 2014):

Today the foundational principles of existence, formerly considered unchangeable, are being questioned and transformed into metaphysically-loaded models of realities.... Not a single aspect of our philosophical heritage should be lost or neglected for this new technosophical field. All knowledge proceeding from past systems or schools of thought can be wisely employed in the conceptual design of alternative worlds. Metaphysics applied to the art of world-making is just one example of how the humanities can find new vocations in the age of advanced technologies. Never before have industry and technology, or even business and advertising, been as loaded with metaphysics as they are today.

Despite the ever-increasing functionality of search engines in a knowledge-based society, the challenge can be reframed in more relevant terms as one of **finding new ways to put the "topics" of preoccupation back into an appropriate topological framework**. This can be partially framed as one of interweaving [threaded conversations](#) (*Interweaving Thematic Threads and Learning Pathways: noonautics, magic carpets and wizdomes*, 2010).

Human potential versus Potential humanity?

Human potential? As framed within the *Encyclopedia of World Problems and Human Potential*, human potential included interrelated databases profiling understandings of [human development](#), [human values](#), [integrative knowledge](#), [transformative approaches](#), and [global strategies](#).

These can all be recognized as indicative of "potential". Of greatest significance, however, is perhaps the manner in which these have proven inadequate to the challenge of the times -- as suggested by the escalating crisis of crises ([James Hillman](#) and [Michael Ventura](#), *We've Had a Hundred Years of Psychotherapy -- And the World's Getting Worse*, 1993). Following a pattern deprecated in the Soviet Union, potentially more tragic is the current complicity of mainstream psychologists in US government torture and abuse of national security detainees, with the apparent protection of the [American Psychological Association](#), as described by Roy Eidelson and Stephen Soldz (*Hawaiian Mind Games: APA fiddles while psychology burns*, *Psychology Today*, 5 August 2013).

It could be appropriately said that the "human potential" for enabling massacres, corruption, and other crises, has proven to be unlimited in practice -- even in recent decades. Any "problems" could well be understood as being a consequence of human capacity to engender them. Understood in this way, human potential is then the human propensity for extreme corruption -- whether or not it is labelled wickedness.

There is then a case for exploring this inadequacy with greater attention, possibly according to the following considerations:

- **lack of focus on remedial capacity:** There is an admirable degree of focus on indicators of what is going wrong. Every kind of statistic is available. Social critics of every political tendency are very attentive to indicators of inadequacy. Missing, in contrast to such focus on "performance indicators", is any assessment of remedial capacity -- as may be variously discussed ([Recognizing the Psychosocial Boundaries of Remedial Action: constraints on ensuring a safe operating space for humanity](#), 2009; [Remedial Capacity Indicators Versus Performance Indicators](#), 1981). Is an Encyclopedia able to take useful account of inability to act on problems?
- **information overload:** It is becoming ever clearer that the quantity and quality of information available is not the issue -- although the challenge of constraint on [throughput](#) merits consideration. The problem is rather the capacity to make intelligent use of it, to absorb it (despite the quantity), and to elicit some integrative understanding of its implications (as argued by the [Global Sensemaking](#) network). Metaphorically this could be compared to constraints on [information throughput](#). This issue might be understood as a form of cognitive "glass ceiling". Is an Encyclopedia able to take account of inability to engage meaningfully with its content, irrespective of how skillfully it is presented through alternative media? The issue is exacerbated by an understandable tendency to focus on the "good news". Unfortunately this increasingly merits comparison with a preference for "information sweetsies" -- suggesting potential collective vulnerability to what might be termed "cognitive diabetes".
- **indifference to suffering:** The daily news presents a diet of major social unrest, bombings, killings, etc. This diet can be readily

understood as inuring people to suffering -- a phenomenon recognized as [psychic numbing](#) -- especially given the reinforcement offered by media dramatizations (murders, etc). A sense of human empathy is however elicited in compensation through the media dramatization of isolated cases -- a focus on the reality of isolated individuals or families. Understandably people find it difficult to relate to hundreds, or thousands, variously suffering or dying -- as with their dramatization. The question is whether there is an indifference to suffering which is cultivated to compensate for the inability to act, and the unwillingness to consider the implications of inaction (*Indifference to the Suffering of Others: occupying the moral and ethical high ground through doublespeak*, 2013). How is an Encyclopedia usefully to integrate this indifference?

- **cognitive constraints in the face of complexity:** Some sense of the complexity of the situation (to which response is required) may be recognized, obtained or assumed. This recalls the assessments of the [Situational Complexity Index](#) (SCI). Key constraints include:
 - "Miller number" (7 ± 2): the much cited constraint reported by [George Miller](#) (*The Magical Number Seven, Plus or Minus Two: some limits on our capacity for processing information*, *Psychological Review*. 1956). Included in the SCI.
 - "Spreadthink number": as identified by [John N. Warfield](#) (*Spreadthink: Explaining ineffective groups*, 1995). This reflects the fact the inability of groups to reach agreement on complex issue. In the SCI, this is assumed to be 5.
 - "Dunbar's number": as formulated by [Robin Dunbar](#), This is a suggested cognitive limit to the number of people with whom one can maintain stable social relationships The commonly used value is 150.
 - **Span of control:** The number of subordinates a leader can efficiently control or manage, currently understood as ranging up to 10.

Potential humanity? Much attention is given to acknowledging the potential of humanity, human ingenuity and creativity, and to collective resilience, whatever the crises to come.

The question to be asked is whether there is an increasing "disconnect" between such appreciation and the living reality for many -- despite the extent to which isolated counter-examples are enthusiastically publicized. Is collective "human potential" effectively a lost cause, whether or not it can be appreciated by the privileged? Can it be said to be primarily honoured in the breach?

The question could be framed otherwise in that the future may understand "humanity" in ways quite unexpected by the present -- as might be said with regard to present reframings of understandings of the past. Conventional understandings and their articulations may be recognized as simplistic in the extreme -- even dangerously so. Why should the future not have more complex insights of greater subtlety -- perhaps of a kind vaguely intuited by mystics?

How might the emerging potential of that humanity come to be understood -- one in which we of the present are effectively the "Neanderthals" in process of displacement by the "Cro-Magnons" (*Authentic Grokking: Emergence of Homo conjugens*, 2003; *Emergence of Homo undulans -- through a "grokking" dynamic?* 2013). Beyond insight into mirror neurons, will humans then be understood as mirroring "external" reality (*Existential Embodiment of Externalities: radical cognitive engagement with environmental categories and disciplines*, 2009).

How will the potential of such humanity be fruitfully challenged existentially by the nothingness to which people are increasingly exposed (*Configuring the Varieties of Experiential Nothingness*, 2012)? How will this relate to the emerging insights of astrophysics into the fundamental significance of nothing (*Emerging Significance of Nothing*, 2012; *Eliciting a Universe of Meaning -- within a global information society of fragmenting knowledge and relationships*, 2013)

Encycling rather than Encyclopedia: dynamic versus static?

Encyclopedia: What is an "encyclopedia" -- given its key role in framing the original initiative, which is the concern here? Online etymological dictionaries offer:

- "course of instruction", with the remark that this has been considered a false reading of by Latin authors of the following
- "general education" (from the Greek *enkyklios paideia*), but with the literal meaning of
- "training in a circle", namely the "circle" of arts and sciences, namely all the domains of knowledge considered to be the essentials of a liberal education (as suggested by *enkyklios* "circular," also "general" (from en "in" + *kyklos* "circle") + *paideia* "education, rearing of a child", from *pais* (genitive *paidos*) "child")
- "reference work arranged alphabetically" is the modern sense (dating from the 1640s)

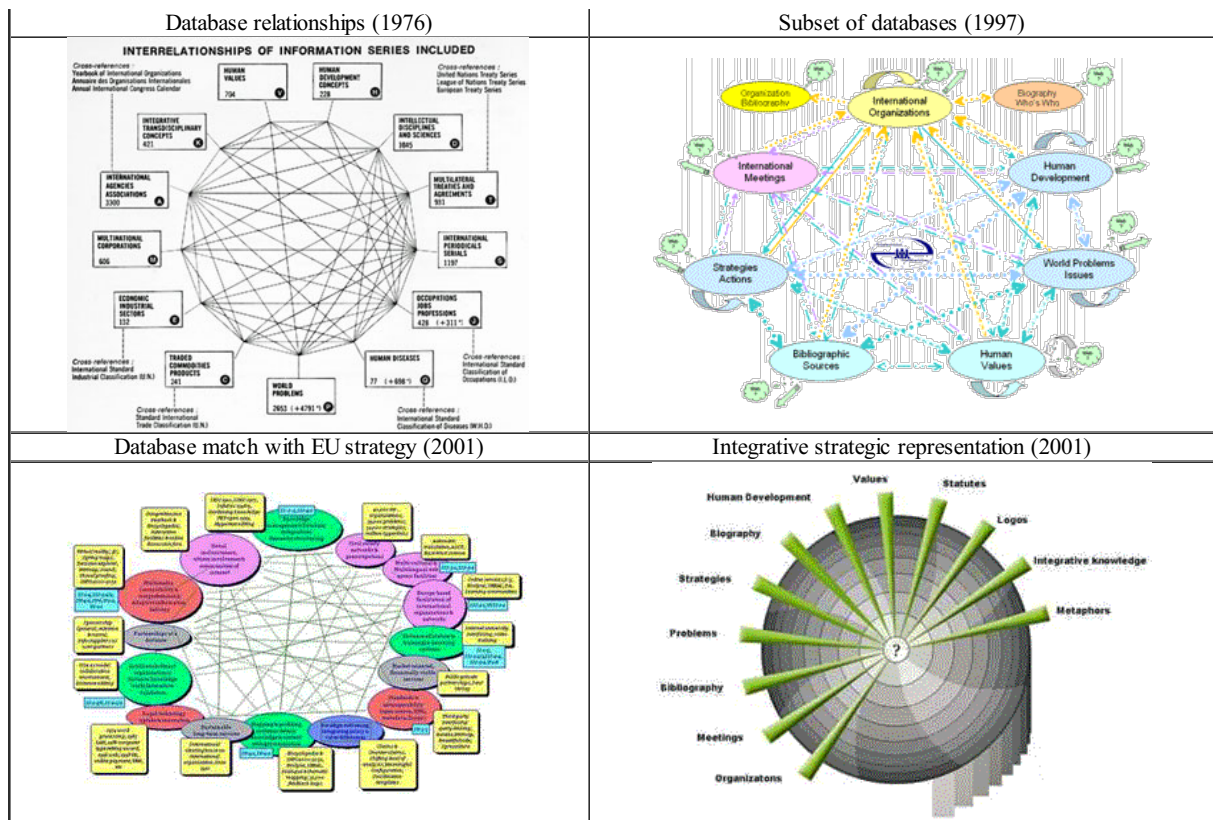
As to "**course of instruction**" and "**general education**", the intention could be said to have been the clustering and profiling of the multitude of extant understandings offered by international constituencies. The explicit intention was to avoid taking an editorial position on views which were often controversial. Rather the effort was to reflect the dynamic between those perspectives as itself being a primary indicator of the reality of a global knowledge-based society. Any instruction and education was in the surprising contrasts between perspectives and priorities. The editorial preoccupation was in providing the clearest articulation of any such perspective -- preferably in the words of the constituency holding that view.

As to "**training in a circle**" of the "**arts and sciences**", again any "training" was a matter for the user -- preferably to be understood as capable of being "entrained" along the pathways of links between variously related entries. With respect to any "circle", variants of the following images were used to give an overview of the relationships between the (online) data sets of the Encyclopedia

Various presentations of subproject database relationships (1976-2001)

(reproduced from [Projects Overview: knowledge management initiatives integrated as the Union of Intelligible Associations](#))

[larger representation of [images together](#); click [on each](#) for individual enlargement]



Clearly this could be understood as encompassing the "arts and sciences" to some degree. Again however, how a user chose to navigate around or within that circle was considered a personal preference. There was no "curriculum", although consideration had been given by other parties to incorporate segments of it into one. Considerable editorial importance was attached to various types of links between profiles, both within and between data sets. As hyperlinks in the online variant, these finally numbered over 300,000

With respect to "reference work arranged alphabetically", the work certainly figured amongst the set of reference works of a principal international source of many such works serving libraries around the world, namely [K. G. Saur Verlag](#). With respect to "arranged alphabetically", every effort was made to randomize the relation between profiles on any page to avoid questionable clustering of entries covering topics that typically had multiple title variants. The focus was placed on a specially designed form of indexing (*Functional Classification in an Integrative Matrix of Human Preoccupations*, 1982), with the hierarchical and other links within entries assisting the user to navigate between entries.

Clearly in its online form any notion of "arranged alphabetically" is itself reframed in the light of search engine functionality and the variety of ways in which search results can be presented (notably through secretive use of [page ranking](#)). Considerable emphasis was placed on a number of different interactive modes of visualizing networks of relationships (*Feedback Loops Interlinking World Problems and Global Strategies*).

Encycling: Although (as noted) "encyclopedia" implies entraining within a circle in some unspecified manner esteemed for purposes of acquiring knowledge, "encycling" is not a formally recognized term. However some use is made of it in relation to ensuring waste recycling. This is appropriate to the dynamic emphasis absent from "encyclopedia" or from "encyclical" -- although both nouns might imply a form of movement. Also noteworthy is its use by the [China Sustainable Industrial Development Network](#) with respect to its program on [Encycling economy and sustainable development](#).

Encycling is particularly appropriate in that it implies an engagement, through remedial action, with what has been variously spoiled (as stressed in [Hexagram 18](#) of the Chinese *I Ching*). It emphasizes the reintegration of what is otherwise "remaindered", as separately argued (*Reintegration of a Remaindered World: cognitive recycling of objects of systemic neglect*, 2011).

Striking use of "encycle" figures in the focus of [Encycle Therapeutics](#). This is a biopharmaceutical company exploiting a proprietary platform technology that enables the rapid synthesis of small-to-medium macrocycles: *This breakthrough technology enables the cyclization of a cross-section of natural and unnatural amino-acid containing molecules, resulting in novel peptidomimetic therapeutic candidates.*

It is curious that the psychosocial sciences have proven to be incapable of drawing insights from the patterns implied by such language. Time for "Encycle Psychotherapeutics" -- perhaps inspired by Chinese insights? More strange, in the light of that language, are the commentaries associating the cyclic *I Ching* pattern logic with the genetic code and the amino acid vitamins basic to human life (Martin Schonberger, *I Ching and the Genetic Code*, 1992), as discussed with respect to [Enhancing the Quality of Knowing through Integration of East-West metaphors](#) (2000).

Encycling is usefully contrasted with common use of "encircle" which achieves a questionable form of completion as a consequence of "encircling" -- also implied by "circling the wagons" in order to achieve defensive closure. Encycling is emphasized here as a continuous dynamic through which a higher order of sustainability is ensured. It is used to suggest a degree of conscious identification with the cycling process, as discussed separately (*Emergence of Cyclical Psycho-social Identity: sustainability as "psychically" defined*, 2007). In

systemic terms, encycyling is more fruitfully understood as rendering into a continuous cycle -- therefore consistent with recycling, but without the limiting implication of use "once again" (only?).

"Encyclopedia" can be readily associated with a "cyclopean" perspective -- to the point of misleadingly implying all-seeing and all-encompassing (*Cyclopean Vision vs Poly-sensual Engagement*, 2006). This is recalled by the [Eye of Providence](#) depicted on the peak of the pyramid on the US one-dollar bill. By contrast, "encycycling" offers a sense of defining by not-defining, of circling around (or circumscribing) that which it is inappropriate and unfruitful to endeavour to define by conventional means, as variously argued (*Paradoxes of Engaging with the Ultimate in any Guise: living life penultimately*, 2012; *Being What You Want: problematic kataphatic identity vs. potential of apophatic identity?* 2008; *Embodiment of a Way Round Pointlessness ?* 2012).

A sense of encycyling is helpfully offered by the vast array of satellites currently circling the planet with which there is a degree of familiarity. The contrast to be highlighted is that -- whilst these "encircle" the globe on orbits which offer a questionable perspective for surveillance, monitoring and other purposes -- less evident is the sense in which the process of achieving such a degree of enwrapping of the globe is better distinguished through use of "encycycling". This suggests a need to explore the contrasting implied by "orbiting" in metaphorical terms with respect to the global organization of knowledge and its dynamics.

Dynamic vs. Static? Whether according to the classic forms of continuing compilation and revision, or in the enhanced online possibilities of such processes, an "encyclopedia" can be understood as essentially static. It could even be considered a monument to stasis, as with the archetypal libraries of reality and imagination -- with the latter exemplified by the [Imperial Library](#) of the Galactic Empire, as imagined by [Isaac Asimov](#) in his [Foundation](#) series. Clearly an online encyclopedia can be designed to be updated, as has been remarkably done in the case of *Wikipedia*, usefully contrasted with its archetypal predecessor the *Encyclopaedia Britannica*. In that sense there is indeed an inherent dynamic of a kind.

That dynamism merits careful contrast with the dynamic engendered by "encycycling". In this case the focus is on continually eliciting cycles amongst the nodes of content -- rather than a focus on elaborating those nodes and improving the quality of their articulation. That pattern is helpfully clarified in the case of *Wikipedia*. A degree of effort is put into providing pointers between entries therein. A certain effort is put into clustering entries into categories.

Missing however (in the case of *Wikipedia*) is any emergent systemic sense of the pattern of pathways amongst the entries, especially those that constitute loops -- as is more familiar in an online context (in principle, at least) in the case of [webrings](#) linking websites. As noted by *Wikipedia* itself: *a webring is a collection of websites linked together in a circular structure, and usually organized around a specific theme, often educational or social. They were popular in the 1990s and early 2000s, particularly among amateur websites.*

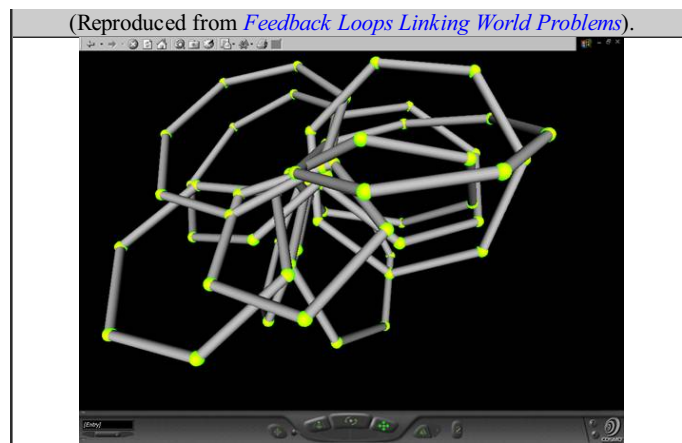
A related argument can be made with respect to the characteristically intense encoding of links ("likes", "friends", "followers") between personal pages, as in Facebook and LinkedIn. The current emphasis is on the binary relation between friends, acquaintances and colleagues, thereby constituting a social network -- to which further contacts can be added. The data readily permits such networks to be represented as maps. Such maps are not valued as a major feature of social networking for reasons which merit exploration.

The data also permits analysis of such networks to detect loops, whereby in a loop of four nodes (for example): A is connected to B, B to C, C to D, and D back to A -- without person C being directly connected to person A. Loops of much larger size could also be readily detected. Potentially of greater implication is the interlocking of particular loops such as to constitute a loop complex in the form of a polyhedron in which the loops are great circle communication pathways ensuring the integrity of that complex (*Polyhedral Empowerment of Networks through Symmetry: psycho-social implications for organization and global governance*, 2008). The possibilities can be readily imagined (*Spherical Configuration of Interlocking Roundtables: internet enhancement of global self-organization through patterns of dialogue*, 1998; *Representation of Interlocking Elements for a Sustainable Global System: configuring strategic dilemmas in intersectoral dialogue*, 1995)

This facility has not been explored. Reference is made to "circles" as in [Google Circles](#), but here the metaphor is only used in the sense of "encircling" a group of contacts. The unknown potential of "encycycling hypergroups", through interlocking into [hyperstructure](#) and [hyperrings](#), has not been explored -- despite intense interest in analogous configurations with respect to construction of protein molecules and associated mathematic theory (Irina Cristea and Sanja Jancic-Rasovic, *Composition Hyperrings*, 2012; Ch. G. Massouros, *Theory of Hyperrings and Hyperfields*, 1965). In chemistry a [hypercycle](#) is a new level of organization whereby self-replicative units are connected in a cyclic, autocatalytic manner. Strangely the renowned [n-Category Cafe](#) of mathematicians with related insight would seem to have no interest in the implications of its own organization as a hypergroup -- or more generally of mathematics as a whole (*Towards a Periodic Table of Ways of Knowing -- in the light of metaphors of mathematics*, 2009; *Is the House of Mathematics in Order? Are there vital insights from its design*, 2000).

The point to be emphasized is that little if any effort is made to explore the systemic structure of hyperlink pathways, whether in the cybernetic terms relating to the role of feedback loops, or in their consequent implications for the organization of knowledge within and between thematic domains. In past editions of the *Encyclopedia of World Problems and Human Potential* a considerable degree of effort was indeed put into ensuring the connectivity between nodes to enable the eliciting of feedback loops and their visualization duly enabled for interactive online use. An encyclopedia, as with *Wikipedia*, is essentially asystemic and makes little effort to promote and enable recognition of the knowledge systems it encodes. The issue of higher order group interlocking was described, in the light of data from the original Encyclopedia, with respect to [Meta-challenges of the Future for Networking through Think-tanks](#) (2005). Some possibilities were illustrated there using techniques of interactive virtual reality.

Experimental online 3-D display of loops in virtual reality for the Problem "Deforestation"
Each node is a Problem in the loop. Clicking on a node opens the Problem profile



Eliciting and engaging with cycles: The argument here for "encycling" is that a shift is appropriate from the compilation mentality of conventional "content-focused" encyclopedia production to one in which the primary focus is one eliciting and refining feedback loops and cycles fundamental to the systemics of a knowledge-based society. The focus on engendering cycles requires a different form of engagement -- possibly to be understood as a shift in "centre of gravity" into the dynamics of the emergent topology of complex systems. Whereas "web-surfing" imaginatively captured one dynamic, the argument here calls for descriptions in terms of both "cycle riding" and engendering recognition of emergent cycles -- as more radical forms of cognitive engagement. With respect to global governance, this modality may be precisely that required by the [adaptive cycle](#) -- a focus of the [Resilience Alliance](#) and a central theme of [Thomas Homer-Dixon](#) (*The Upside of Down: catastrophe, creativity, and the renewal of civilization*, 2006).

The point can be made otherwise through contrasting the portrayal of an encyclopedic compilation as offering an image of the "state of the world". Many reports on the problematique, whether with a global or a sectoral emphasis, adopt this terminology -- without acknowledging the cognitive stasis that it reinforces. A review of the issue, and of such reports, is presented separately ([Dynamic Transformation of Static Reporting of Global Processes: suggestions for process-oriented titles of global issue reports](#), 2013).

Future evolution: The point can also be made more imaginatively through speculation on the future evolution of the process of social networking. There is a sense in which facilities like Facebook and LinkedIn can be understood as essentially "encyclopedic". The focus is on continual articulation of personal or group profiles. Considerable attention is given to extending and managing the links between profiles. These contexts have already proven to be a vehicle for identity and its development to a remarkable degree -- for some at least.

Potentially missing, in the eyes of the future, may be recognition of the emergent systemic capacities of such processes. Their role with respect to mobilization has already been widely remarked -- as with the Occupy Movement and the Arab Spring revolutions. Yet to become apparent, or significantly enabled, is their cognitive role. Metaphorically this potential is suggested by parallels already drawn to [swarm intelligence](#) and to swarm behaviour more generally -- so admirably an elegantly visualized in [bird flocking](#) and fish shoal behaviours, as separately discussed (*Flocking behaviour and the dynamics of gated conceptual communities*, 2004). Even more speculatively, facilities like Twitter suggest the future emergence of new language through which new forms of harmony may emerge (*Re-Emergence of the Language of the Birds through Twitter?* 2010)

Questing for an imaginal episystemic container: embodying self-reflexivity?

Imagination: The focus in this argument is on imagination -- on eliciting it and sustaining it. **Imagination can be claimed to be the essence of the process of being human**, whereby one reinvents oneself -- recreates oneself. It is curiously and paradoxically conflated with the distraction of "recreation".

There is of course an extensive literature on the nature and value of imagination and its relation to creativity. One thread stresses its intimate relation to reality, as summarized by Robert Avens (*Imagination is Reality: Western Nirvana in Jung, Hillman, Barfield and Cassirer*, 1980). It is central to philosophy, as stressed by Patrick Harpur (*The Philosopher's Secret Fire: a history of the imagination*, 2002). In the surprising associations it engenders, it is vital to the creative process ([Douglas Hofstadter](#) and Emmanuel Sander, *Surfaces and Essences: analogy as the fuel and fire of thinking*, 2013). It is clearly valued by the young, as most notably exemplified by the explosion of multi-media products evoking imagination.

In a period of burgeoning crises, the question is how collective imagination is nourished and associated with response to the challenge -- enabling it to be creatively reframed as appropriate: "on the fly" in support of strategic nimbleness. How then to recognize and engage with collective fantasies, as separately discussed (*Cultivating Global Strategic Fantasies of Choice: learnings from Islamic Al-Qaida and the Republican Tea Party movement*, 2010)?

Strong cases have been variously made for educating the imagination (Carol Frenier and Lois Sekerak Hogan, *Engaging the Imaginal Real: doorway to collective wisdom, Collective Wisdom Initiative*). As "imaginative education", this is the focus of the [Imaginative Education Research Group](#). It can be enabled through a variety of modes, as separately reviewed (*Imaginal Education: game playing, science fiction, language, art and world-making*, 2003)

As summarized by Albert Einstein: **Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.** This interweaves threads of the argument above in that it is knowledge which every possible attempt is made to possess exclusively -- as intellectual property.

The question is then the meaning to be associated with what "encircles the world" and the nature of that process. Is the world to be

understood as spherically enveloped and enfolded -- suggesting a degree of enclosure? Is there a dynamic to that enfolding -- as implied by [noosphere](#) and its systemic correspondence to biosphere and atmosphere? How does imagination "flow" -- as with intuitive reference to "creative juices" flowing? Does meteorology offer relevant insights? Allusion to noosphere is appropriate given the recognition increasingly accorded to [noopolitik](#), namely the network-based [geopolitics](#) of knowledge.

Container: What is to be understood as the "container" enabling imaginal processes? Focusing on container is valuable, as has been stressed in terms of cognitive psychology by [George Lakoff](#) and [Mark Johnson](#) (*Metaphors We Live By*, 1980). It is the container metaphor which governs so many implications regarding what is "in" or "out" -- extending most problematically to "us" and "them", as a consequence of "circling the wagons", as noted above (*Us and Them: Relating to Challenging Others -- patterns in the shadow dance between "good" and "evil"*, 2009).

What might be fruitfully implied by an imaginal container? Einstein's articulation might be challenged in that it could be interpreted to imply that imagination "rings the world" in a purely geometrical sense. The argument developed here is that it is a dynamic "encircling" -- hence the focus on "encycling". Given the common association of "light" with "imagination" -- extending to "enlightenment" -- it is then useful to ask what might be circulating in any encycling process. Various understandings of "circulation of light" then merit attention, as separately discussed (*Circulation of the Light: essential metaphor of global sustainability?* 2010).

How might the nature of a "hoocontainer" be imagined -- a container for the noosphere and for any noopolitik?

Imaginative containers for imagination? There is then case for an imaginative review of possible containers for imagination -- given the degree of paradox they may imply, and the sense in which it is imagining such containers collectively that the present times require. The paradox is highlighted by such as the following:

- The understanding of Douglas Hofstadter (*I Am a Strange Loop*, 2007) following his earlier argument for self-reflexivity (*Gödel, Escher, Bach: an Eternal Golden Braid*, 1979). The loop can be considered as referring to the twisted circular [Möbius strip](#) as a form of container, as discussed separately (*Sustaining a Community of Strange Loops: comprehension and engagement through aesthetic ring transformation*, 2010).
- The cognitive implications of the [Klein bottle](#) as a four-dimensional container, in which inside and outside are not distinguishable, as extensively discussed by [Steven M. Rosen](#) (*Topologies of the Flesh: a multidimensional exploration of the lifeworld*, 2006; *Dimensions of Apeiron: a topological phenomenology of space, time, and individuation*, 2004).

Other relevant insights were discussed separately in terms of ways of understanding *Navigating the dynamics of information fluidity* (2014). These included:

- **Movement of water and in it** as described separately (*Enabling Governance through the Dynamics of Nature: exemplified by cognitive implication of vortices and helicoidal flow*, 2010).
- **Cognitive modulation understood through electrical metaphors** discussed separately with graphics and intimations (*Modulating cognitive transformations: electrical metaphors and semiconduction*, 2012)
- **Engaging with manifold abstraction:** As exemplars of imaginative creativity, mathematicians and physicists now articulate the most appropriate understanding of the complexity of reality through the abstraction of a [manifold](#). This is a [topological space](#) of potentially high dimensionality that nevertheless resembles Euclidean space near each point. Whilst necessarily eluding normal comprehension, other than through the formalism of mathematics, the nature of the spaces so indicated is consistent with the quality of the intuited experience of the existential nothingness to which so many feel exposed in one form or another. One understanding of manifold by physics is as a multidimensional [brane](#) -- of which of which membrane is a two-dimensional instance. the question is how to engage cognitively and experientially with that insight, as may be speculatively explored (*Global Brane Comprehension Enabling a Higher Dimensional Big Tent? Strategic implication in encompassing nothing and coming to naught*, 2011).

Untouchable: Especially intriguing is the manner in which creative imagination can be associated metaphorically with the current design issues of a toroidal container to control the flow of plasma such as to enable nuclear fusion. As a challenge this might be compared with that of fruitfully controlling attention, as separately discussed (*Enactivating a Cognitive Fusion Reactor: Imaginal Transformation of Energy Resourcing (ITER-8)*, 2006). Even more intriguing is that a primary requirement for a [fusion reactor](#) is that the plasma **not touch** the walls of the container -- which would be destroyed by that contact. This highlights recognition of the conditions appropriate to imagination and the manner in which the boundaries of the container can inhibit creativity -- as is only too evident in architecture of most institutions, especially those of governance.

The topological challenge is then reminiscent of the legendary quest by alchemists for a container capable of holding the "[universal solvent](#)" -- that which can dissolve "everything". Expressed otherwise, this would be the form which could "contain" every kind of "point making" susceptible to dissolve it -- an appropriate framing of the challenge of global governance. The association of topology and alchemy is central to a current exploration of [Rosen](#) (*Dreams, Death, Rebirth: a multimedia topological odyssey into alchemy's hidden dimensions*, 2013). Understood in this light, should intellectual property constraints be recognized as the wall of the container with which contact should necessarily be avoided -- if the imaginative process is to be enabled and sustained?

A related understanding of **not touching** is offered by orbital motion This has proven to be intimately related to imaginative exploration beyond the boundaries of the Earth and the solar system. (*Way Round Cognitive Ground Zero and Pointlessness: embodying the geometry of fundamental cognitive dynamics*, 2012; *¿ Embodying a Way Round Pointlessness ?* 2012).

As noted by [Susantha Goonatilake](#) (*Toward a Global Science: mining civilizational knowledge*, 1999), the metaphors developed by Asian

cultures could prove vital to understanding the design and "operation" of an imaginal container. As a specific example, the increasingly appreciative understanding of *qi* (*ch'i*) offers indications as to how attention might be integrated with information flows. Classically *qi* is understood as an active principle forming part of any living thing -- typically explained as "life force", or "energy flow". In the light of the above argument, it can be readily extended to the cognitive modality through which information is attentively managed. This is consistent with traditional recognition of its underlying role in Chinese medicine and martial arts.

Of related relevance to encyclying within that culture is the significance of the complex patterns of cycles within the *I Ching* -- through which conditions are variously transformed into one another, as separately discussed and mapped (*Transformation Metaphors: derived experimentally from the Chinese Book of Changes (I Ching) for sustainable dialogue, vision, conferencing, policy, network, community and lifestyle*, 1997).

Epic poetic forms: A seemingly unrelated approach to the design of an imaginative container is the traditional form of the **epic poem** -- which elicits imaginative reflection through being retold. Of particular interest is the complex pattern of relationships between its parts and the various possibilities of their evoking understanding at different levels. Given the constraints on processing information, poetic metaphor then offers a meta-pattern of connectivity. This is consistent with the observation of Gregory Bateson in explaining why "we are our own metaphor" to a conference on the effects of conscious purpose on human adaptation:

One reason why poetry is important for finding out about the world is because in poetry a set of relationships get mapped onto a level of diversity in us that we don't ordinarily have access to. We bring it out in poetry. We can give to each other in poetry the access to a set of relationships in the other person and in the world that we're not usually conscious of in ourselves. So we need poetry as knowledge about the world and about ourselves, because of this mapping from complexity to complexity. (Mary Catherine Bateson. *Our Own Metaphor*, 1972, pp. 288-289)

In the absence of modern epic forms, other than blockbuster myth-making (*The Lord of the Rings*, *Star Wars*, *Harry Potter*, etc), there is a case for taking further the epic poetry argument by "marrying" it appropriately, and self-reflexively, with the fantasies of astrophysics, as discussed separately (*Being a Poem in the Making: engendering a multiverse through musing*, 2012). The sense of "encycling", namely rendering into cyclic form, can then be understood in relation to the "ring cycle" of Richard Wagner (*The Ring of the Nibelung*). It is in this sense that global diversity merits encyclying, as suggested separately (*Enactivating Multiversal Community: hearing a pattern of voices in the global wilderness*, 2012). Framed in this way, there is of course the question of how the meta-pattern of imaginative associations transcends the inhibiting effect of those bent on restricting copyright. Is a meta-pattern vulnerable to copyright restrictions as intellectual property?

Epic song forms: Reference to the operatic *Ring Cycle* highlights the extent to which poetry extends into song and music. It can be readily argued that a process of encyclying has long been evident in rendering of insight into music and song. The process has become ever more evident with new multi-media technology and the access to such modalities it offers at any moment.

Seemingly missing is the engagement with the problematique characteristic of an Encyclopedia -- or of a resolutique. It is however the case that many problems and their remedies are articulated in song and music within a value-imbued pattern of associations.

There is a fundamental disconnect between such articulations in harmonic form and the policy world (in quest of harmony) to which an Encyclopedia is supposedly of significance. This is most evident through the choirs, orchestras and anthems of major institutions. The reverse is also the case, namely that that disconnect renders an Encyclopedia meaningless to many who mandate strategic initiatives. How might encyclying enable such engagement, as separately explored (*A Singable Earth Charter, EU Constitution or Global Ethic?* 2006)?

Episystemic insight: Citing the "global wilderness" (as above) helps to stress the challenge of identifying the voices typically unheard -- and of encyclying them into a meta-pattern. That argument can be developed by reference to "episystemic" and recognition that those ignorant of the existence of those voices makes of them terrestrial "extras" (in dramatic terminology), if not "extraterrestrials". The issue is the dimensions of collective intelligence the voices represent, as separately explored (*Sensing Epiterrestrial Intelligence (SETI): embedding of "extraterrestrials" in episystemic dynamics?* 2013).

The latter document devotes a section to clarifying the relative rare use of "episystemic" (*Potential insights from an "episystemic" perspective*, 2013). These include the argument of Maurice Merleau-Ponty in viewing attention as the fundamental basis for culture. He noted an "epi-systemic shift" that privileges the activity of the knower who is "given more constitutive roles" (John C. O'Neal, *Changing Minds: the shifting perception of culture in eighteenth-century France*, 2002, p. 20).

As concluded in that summary, although "episystemic" is presented as distinct from more frequent use of "epistemic", the NSA/PRISM initiative reinforces the valuable argument for vigilance made by Dan Sperber and colleagues (*Epistemic Vigilance, Mind and Language*, 2010). With respect to "epistemic", Mircea Oancea (*Resolution and Consistency in Dialogical Reasoning*, 1999) describes the development of the approach of Peter Gardenfors (*Knowledge in Flux: modelling the dynamics of epistemic states*, 1988) in the domain of argumentation. Given the problematic "success" of the Human Genome Project, it could be asked whether the NSA/PRISM initiative is effectively framed as a Human Memome Project -- with a failure to anticipate any consideration of epimemetics, and the comprehension of memetic analogues to "protein folding".

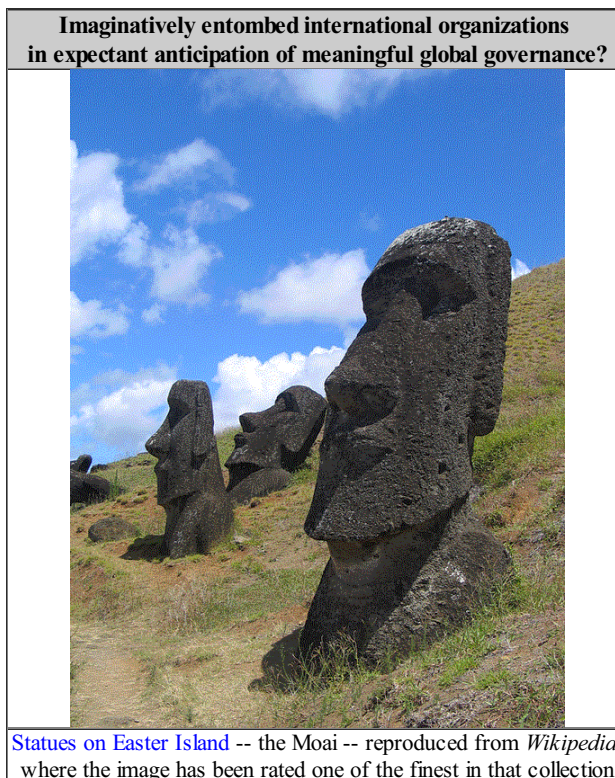
It is in these senses that an "episystemic" understanding is an appropriate feature of epistemic "encycling" as argued here. The cognitive engagement with encyclying can then be more fruitfully related to arguments for the embodied mind, especially with respect to movement (George Lakoff and Mark Johnson, *Philosophy In The Flesh: the embodied mind and its challenge to Western thought*, 1999; Mark Johnson, *The Meaning of the Body: aesthetics of human understanding*, 2008; Maxine Sheets-Johnstone, *The Primacy of Movement*, 2011).

Mankind 2000 and Union of International Associations -- "reloaded"?

It is useful to recognize the extent to which many institutional forms are no longer "fit for purpose" as the nature of the crises of the times becomes apparent. Many are best understood as monuments to the creative imagination of the past -- imaginative processes which have long moved on to be enabled otherwise, most notably by the internet. As monuments to understandings and modalities of the past, they are indeed a source of learning -- if only as a focus for tourism.

More problematic is the manner in which they are effectively entombed by intellectual property constraints and the imaginative inhibitions these reinforce. The process can be explored as one of "enstoning" (*Transforming and Interweaving the Ways of Being Stoned: Imagination, Promise, Rocks, Memorials, Petrification*, 2012).

Many might be compared to the monolithic [human statues on Easter Island](#) (the Moai), seemingly awaiting patiently an event whose nature now eludes them -- perhaps to be dramatized as *Waiting for Godot*. The collapse of the culture on Easter Island is cited by [Jared Diamond](#) as providing one of the best historical examples of societal collapse in isolation (*Collapse: how societies choose to fail or survive*, 2005).



In the quest for imagination appropriate to the challenges of a chaotically complex future, consideration could be given to a radical reframing -- at least in visual terms -- of the bodies which enabled the original Encyclopedia.

In memetic terms, the question is whether there is any way of collectively returning to the imaginative roots of collective creativity which engendered them -- perhaps to be compared with the controversial concern of geneticists with [stem cell research](#). How is the present to be reimagined in contrast to investing imaginatively, like the Easter Islanders, in expectation of a catastrophic future, as separately argued (*Engendering 2052 through Re-imagining the Present: Review of 2052: a Global Forecast for the Next Forty Years as presented to the Club of Rome*, 2012)?

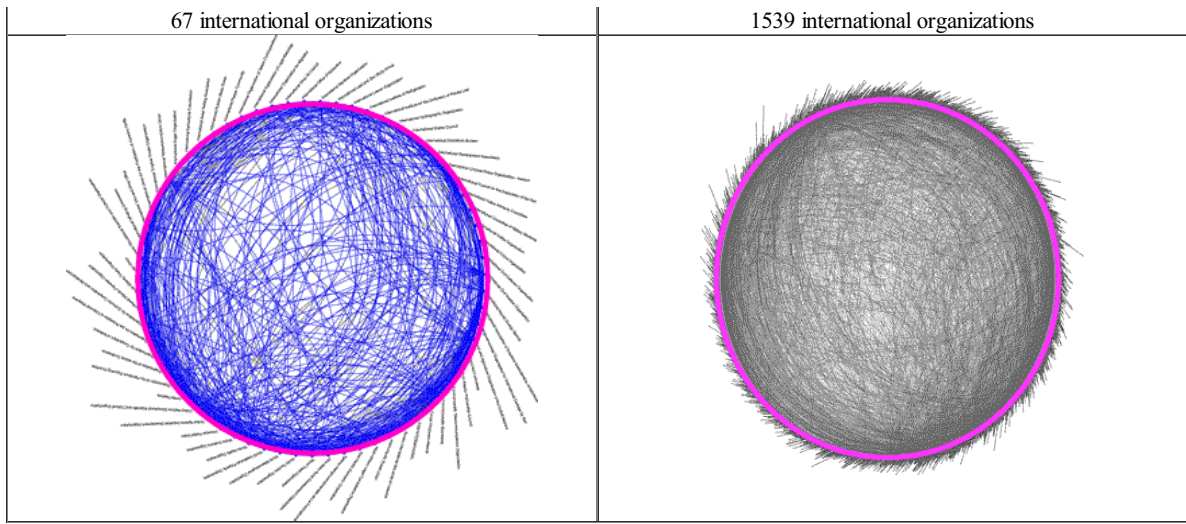
If institutions can be compared to computer programs, especially in that many order their activities through a "program", it is useful to recognize the process through which a computer program can be "reloaded". Use was imaginatively made of this term as a metaphor descriptive of the radical cognitive shift associated with the science fiction drama *The Matrix Reloaded* (2003). As an alternative paradigm, such "reloading" is far more suggestive than efforts by institutions to renew themselves by adopting a new program. This is readily recognized as tweaking and tinkering -- even "rearranging the deck chairs on the Titanic". It in no way relates to the many references to the "paradigm shift" required at this time by "new thinking".

What images might then be suggestive of containers appropriate to the creative imagination process? It is appropriate to note the intimate relation between imagination and image -- one that tends to be completely lost in text. It is the image which is a catalyst and template for the imagination, whether or not the relationship is as problematic as that between chicken and egg.

As examples, how might the UIA and M2000 be imaginatively "reloaded" through returning to the creative roots from which they emerged?

Union of International Associations? How is "union" to be most appropriately understood in a global knowledge-based society? Should conventional representation by a circle -- or a sphere -- be considered meaningful in a complex society?

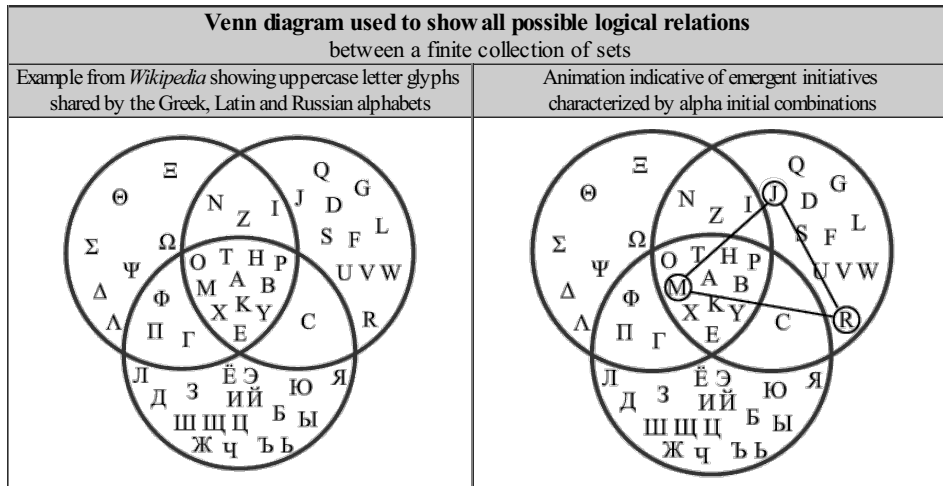
Conventional understanding of "union" as bonded by a circle?
Indicative maps of associative connectivity between selected international organizations



What might be fruitfully understood by "association" connectivity for the future? The following possibilities were considered in a previous exercise (*Union of Intelligent Associations: remembering dynamic identity through a dodecameral mind*, 2005).


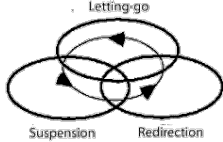
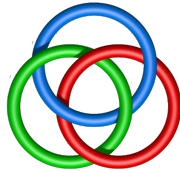
	?	?	?	?	?	
	Indicative	Incommensurable	Immanent	Intuitive	Incompatible	
	Inductive	Intelligent	Intentional	Interdisciplinary	Ideal	
Union of	Incongruous	Invented	Illusory	Independent	Inspiring	Associations
	Integrative	Imaginary	Ignorant	Irresponsible	Instantaneous	
	Interrogative	Innovative	Interesting	Impossible	Implied	
	Impatient	Intriguing	Imaginative	Intractable	International	
	?	?	?	?	?	

Imagination may also be triggered with respect to organizations by recalling that they are typically known by their initials rather than by their titles -- as with UIA. With respect to the multitude of such bodies, reference is frequently made to "alphabet soup". Given the memetic concerns with respect to a knowledge-based society, it is useful to recall the primordial [genetic soup](#) from which it is assumed that life emerged. The following images therefore help to frame a sense of combinations of associations.



The animation on the right is suggestive of the manner in which globally significant initiatives emerge from a "meme pool" -- by analogy with a [gene pool](#), namely the set of all genes, or genetic information, in any population. The provocative question is the nature of the combination which might engender sustainable life. It also evokes the question of the nature of the container for the process -- a memetic stem cell? Given the controversial issues relating to [gene patenting](#), and the degree to which such combinations are already subject to copyright, it reframes the even more challenging possibility of meme patenting, as separately discussed (*Future Coping Strategies: beyond the constraints of proprietary metaphors*, 1992; *Internet memes: copyright licensing in an IP minefield*, *World Intellectual Property Review*). How might such issues apply to hyperlinks between memetic constituents of the noosphere -- given the discussion by *Wikipedia* (*Copyright aspects of hyperlinking and framing*)?

Mankind 2000? As being appropriate to engendering a future Encyclopedia, this title can be readily challenged. The French variant, Humanité 2000, has the merit of avoiding issues appropriately raised from a feminist perspective. The date reflects a benchmark of the past. Far more relevant to the concerns here are the separately discussed [challenges to the comprehension of its logo](#) (see below). As the [triple spiral](#), or triskele, it is a Celtic and pre-Celtic symbol found on a number of Irish Megalithic and Neolithic sites. This can be fruitfully compared and confronted with the logical challenge of the three interlocked Borromean rings. However, of particular relevance to the argument here is the association of both with the [phenomenological epoché](#), as notably articulated by [Francisco Varela](#).

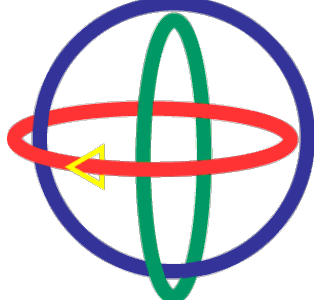
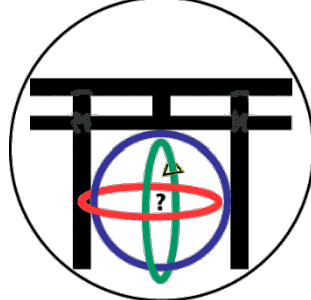
Triskele logo of M2000 (megalithic symbol)	Phenomenological epoché (adapted from Varela)	Borromean rings (adapted from Wikipedia)
		

The "confrontation" of these images was discussed previously with respect to *Presenting the Future (Present Moment Research: exploration of nowness, 2001)* and to *Engendering Invagination and Gastrulation of Globalization (Engendering holistic integration: Borromean knots and Klein bottles? 2010)*. The original version of the central image figures in a study involving Varela (Natalie Depraz, F. Varela and Pierre Vermersch, *The Gesture of Awareness: an account of its structural dynamics, 2000*). Here it has been inverted, conserving the directionality, for better comparison with the two others. As noted there, with respect to the three-fold cyclic processes indicated, there is:

- a phase of **suspension** of habitual thought and judgement. This is a basic precondition for any possibility of change in the attention which the subject gives to his own experience and which represents a break with a 'natural' or non-examined attitude.
- a phase of conversion (**redirection**) of attention from 'the exterior' to 'the interior'.
- a phase of **letting-go** or of receptivity towards the experience. Note in passing that in this recursive movement, the suspending movement which begins the process, has a quality which is different each time around, at each step of the structuring of the reflective act.

The cognitive relevance to the embodiment of mind (as mentioned above) is discussed by Rachel Zahn (*Francisco Varela and The Gesture of Awareness: a new direction in cognitive science and its relevance to the Alexander Technique, 2005*). The implications of Borromean knots, together with the insights of Varela, figure in a variety of recent studies.

With respect to re-imagining the relationships between the elements of these images, the Borromean figure can be presented in three dimensions -- as in the left-hand animation below, then to be understood as clarifying the nature of encycling. It is not irrelevant that such a three-dimensional Borromean knot has been recently selected as the logo of the International Mathematical Union (see *Borromean Rings Logo of the International Mathematical Union*). The animation highlights the sense in which the cognitive processes are "mutually orthogonal", challenging any possibility of adequately representing them in two dimensions, or of adequate comprehension in those terms..

Animation of 3-ring Borromean knot to suggest cognitive complexity of encycling	Experimental animation "encycling" threads of the above argument
	

The animation on the right is an effort to associate a sequence of images through a cycling visual narrative. As an exercise in suggestive integrative presentation, the images notably include the copyright symbol, transformed into the letter "e" (as indicative of encycling), together with elements of WIPO, OMPI and M2000, the Borromean animation on the left, and the *torii gateway* (framing entry to a sacred space in Japan). In this endeavour use has been made of the Greek symbol pi and a play on various indications of imaginative challenge (the letter "i", the interrogation and exclamation marks, and their inverted forms). [From a technical perspective, a variety of means could be used to improve considerably both animations, including use of SVG, morphing, and interactivity]

The animation exercise has been partly inspired by the *Euler identity* (discussed below) in which some of these elements figure visually, notably including addition, subtraction, equality, one and zero. The discussion mentioned above regarding "epistemic intelligence", included an exploration of potentially fruitful mnemonic *correspondences between "epi" and the Euler identity* ($e^{\pi i} + 1 = 0$). Other possible implications of that identity have been discussed with respect to metascientific insight (*Metascience Enabling Upgrades to the Scientific Process: beyond Science 2.0?*, 2014).

Of some relevance is the possibility of extending the incorporation of W and M (in the animation on the right) to include the memetic play amongst the many more alpha glyphs in the earlier animation. There is a sense in which the space framed by the form of the torii gateway lends itself as a container for all such glyphs and their potential memetic significance -- including the hexagram configurations of the *I Ching*. This could be especially interesting, if only visually, in the case of Greek letters, notably given the particular academic significance associated with "*Greek letter societies*" and the influence of the associated alumni. An incidental constraint, preventing that exploration, is the scarcity of sans-serif Greek fonts and the extent to which use of type fonts in general is restricted under intellectual

property provisions.

Olympic games? This context may be used to derive relevant insight from the games (held in Sochi at the time of writing). They exemplify in variously interrelated and contrasting ways:

- potential humanity, variously embodied in "circles" and "cycling":
 - a symbol of world significance, whatever this is held to imply in integrative terms
 - a [5-ring logo](#), reminiscent of the interlocking of Borromean rings (above) and its implication
 - an arena upheld as highlighting the human spirit and its potential
 - featuring the embodiment of human intelligence, most notably in some acrobatic sports
 - exhibiting multidimensional human capacities far beyond two dimensional understanding (as visually highlighted in coverage of the Sochi games)
- human potential in its problematic sense:
 - very strong focus on the intellectual property associated with its 5-ring logo, even though it is in the public domain in some countries
 - pattern of game-playing, readily to be understood as engendering far more losers than winners.
 - reduction of the multidimensional complexity of the performance by successful participants to memorabilia in the form of two-dimensional circular medals
 - the extent of the unsaid and unstated with regard to its problematic commercial and other relationships, notably evident in censorship of any potentially controversial media coverage

Engendering engaging manageable "content"?

The argument frames a key question for many: what is the "content" of an encycloping initiative?

In the case of an Encyclopedia the focus is clearly on the profiles of problems and other entries -- as in the past and as reflected in *Wikipedia*. This is the "original work" to which copyright provisions are so assiduously attentive. This can be understood as necessarily an inhibitor on creative imagination. Any imagination is necessarily to be governed by the rules of that context -- and necessarily so. The dilemma is clarified by the design challenges of a nuclear fusion reactor, as mentioned above. How can the flow of imagination be enabled without engaging with the walls of the container? The question is especially pertinent in that it is the dynamics of flow -- through encycloping -- that sustains the excitement and engagement characteristic of creativity.

One response, as remarkably enabled by *Wikipedia*, is to provide for open source contributions -- understood to be essential to the dynamic of the initiative. The argument above has however stressed the significance of the patterns interweaving the elements of substantive content. This constitutes "substance" of a different order. Engagement with those patterns enables emergence of a meta-pattern -- if only in the experience of those so engaged. Of this meta-pattern Gregory Bateson notes:

The pattern which connects is a meta-pattern. It is a pattern of patterns. It is that meta-pattern which defines the vast generalization that, indeed, it is patterns which connect. (*Mind and Nature: a necessary unity*, 1979)

And it is from this perspective that Bateson warns: ***Break the pattern which connects the items of learning and you necessarily destroy all quality*** (1979, pp. 8-11). With respect to any emergent pattern language, this echoes the sense of Christopher Alexander that: *in our time the languages have broken down*. Again the emphasis in what follows is on a **dynamic** meta-pattern of connectivity, usefully understood through "transformations". Any particular transformation necessarily implies a dynamic. How the pattern of connectivity might itself be dynamic is necessarily a greater cognitive challenge, as discussed separately (*In Quest of a Dynamic Pattern of Transformations: sensing the strange attractor of an emerging Rosetta Stone*, 2012).

Encycloping Problematic Wickedness and Potential Humanity?

The arguments here highlight the extent to which it is less the tangible outcome of any new initiative at this time and more the manner in which a potential initiative is imagined in the light of recognizable constraints and new possibilities. The question is how any future initiative is to be imaginatively engendered -- recognizing that premature closure may inhibit the requisite creativity through focusing on tangibles and immediate results -- rather than on the intangibles which are necessarily more difficult to render comprehensible. As with the old advertising adage, it may be a case of finding ways to **"sell the sizzle and not the steak"**.

"Wickedness" is most often a characteristic of another, their belief, and their strategic intention. This necessarily implies the probability that **one will be oneself "wicked" from some other perspective**. Who would presume to claim that this is not the case?

In any cognitive system governed by the norms of a "flat earth mentality", wickedness is necessarily framed as being on the underside with an alternative orientation. Little has been learned from the global nature of the world in the sense that darkness always prevails somewhere. The implications of the dynamics of the noosphere remain to be recognized -- despite the extent of insight into orbital dynamics and the understanding of shadow effects. More generally, the value of the general theory of relativity to the astrophysics of the universe has not been extended to intellectual property, constrained as it is by that limited mentality (*Einstein's Implicit Theory of Relativity - of Cognitive Property? Unexamined influence of patenting procedures*, 2007).

If reference to anything can be restricted by intellectual property provisions, is it already imaginatively obsolete? Is the effort to restrict such usage an indication of the constrained imaginative capacity of those relying on such provisions?

The challenge of encycloping is to entrain incommensurable perspectives "together" within an appropriately paradoxical context which

honours their differences and the dynamics between them -- but challenges any conventional framing. There would appear to be a need for a counter-intuitive "twist" (*Engaging with Questions of Higher Order: cognitive vigilance required for higher degrees of twistedness*, 2004). The process of *enantiodromia* is suggestive in this respect, as described by William Irwin Thompson (*Pacific Shift*, 1986). The question is how best to understand and represent, to the extent possible, the paradox of inversion as may be tentatively explored (*World Introversion through Paracycling: global potential for living sustainably "outside-inside"*, 2013).

One playful approach to such a possibility is through the potential implication of the mathematical equation rated as the most beautiful, namely the *Euler identity*. This could be understood as holding the requisite complexity through embodying a sense of cyclic movement in the complex plane in which potential humanity might be appropriately assumed to be embedded -- through some sense of conscious embodiment. The engendering of potential humanity is then fruitfully understood as achieved through the encycling process -- as metaphorically suggested (above) with respect to the cognitive correspondence to nuclear fusion.

Rather than any implication that encycling is suggestive of cycles that lend themselves to representation in conventional system diagrams, here the implication is that a higher order of cybernetics is involved -- with a sense of self-reflexivity, as may be variously argued (*Consciously Self-reflexive Global Initiatives: Renaissance zones, complex adaptive systems, and third order organizations*, 2007). This is consistent with the effort to relate *problematique*, *resolutique*, *imaginatique* and *ludique* in a visual rendering of the complex plane, as separately discussed (*Imagining the Real Challenge and Realizing the Imaginal Pathway of Sustainable Transformation*, 2007). The approach is also consistent with a need to reframe the continuing challenges framed in terms of "breaking cycles", often associated with "virtual wars" (*Dysfunctional Cycles and Spirals: web resources on "breaking the cycle"*, 2002; *Review of the Range of Virtual Wars: a strategic comparison with the global war against terrorism*, 2005).

Given the degree of implication of "wickedness" as being fundamentally "evil", there is a strong case for exploring the location of the "underworld" where the wicked dwell -- and its relation to the "overworld" where norms prevail. This can be variously discussed (*Designing Global Self-governance for the Future: patterns of dynamic integration of the netherworld*, 2010).

Given the reference above to the role of epic poetry, the argument in relation to encycling can be taken further through the traditional myth regarding the Beauty of the overworld and the Beast of the underworld (*Poetry-making and Policy-making: arranging a Marriage between Beauty and the Beast*, 1993; *Marrying an Other whatever the Form: reframing and extending the understanding of marriage*, 2013). This is suggestive of possibilities which could be explored in some current arenas of conflict (*Poetic Engagement with Afghanistan, Caucasus and Iran: an unexplored strategic opportunity?* 2009).



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