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Club of Rome Reports and Bifurcations a 50-year overview

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Significant bifurcations triggered by the history of the Club of Rome

As is to be expected, during the extended history of an organization, various initiatives were triggered by its approach as reflected in some 40 reports and declarations listed below. Notable "bifurcations" include the following.

1. The first "Report to the Club of Rome" arose from a project falling directly under the cognizance of the Executive Committee of the Club of Rome during its formative stages.. The Executive Committee had asked the Institut Battelle at Geneva to provide administrative support and act as managing agency for a project Work Group and asked [Hasan Ozbekhan](#) to undertake the overall direction of the project and ensure the operational responsibility for the Work Group, calling on consultants as required to transform the prospectus into an action plan. The consultants included [Alexander Christakis](#), [Erich Jantsch](#), and [Aurelio Peccei](#). The "prospectus" in the form of a "report to the Club of Rome" was entitled: *The Predicament for Mankind: Quest for Structured Responses to Growing World-wide Complexities and Uncertainties* (1970). Its proposals were rejected in favour of the "Club of Rome Project on Predicament of Mankind at MIT" directed by [Dennis Meadows](#) from 1970 to 1972. This resulted in publication of what was became known as the first report to the Club of Rome (*The Limits to Growth*, 1972). A distinct report was later published by Hasan Ozbekhan (*The Predicament of Mankind*. In: C. West Churchman and Richard O. Mason, eds., *World Modelling: A Dialogue*, North-Holland, 1976).

2. *The Limits to Growth* had been based on the [World3](#) model, a computer simulation model of interactions between population, industrial growth, food production and limits in the [ecosystems](#) of the Earth. It had added new features to [Jay W. Forrester's](#) World2 model and was documented in *Dynamics of Growth in a Finite World* (1974). The accomplishments of this group through the 1970s have been reviewed, by some of those involved, in an exceptionally honest book: *Groping in the Dark; the first decade of global modelling* (Donella Meadow, et al., 1982). The initiative was also reviewed by Sam Cole and Eleonora Barbieri Masini (*Limits beyond the millennium: a retro-prospective on The Limits to Growth*, *Futures*, 33, 1, February 2001). As shown by Graham Turner (*A Comparison of the Limits to Growth with Thirty Years of Reality*, CSIRO 2007), the original study provoked many criticisms which falsely stated its conclusions in order to discredit it.

Since World3 was originally created it has had minor tweaks to get to the World3/91 model used in the book *Beyond the Limits* and later was tweaked to get the World3/2000 model distributed by the [Institute for Policy and Social Science Research](#). The original study immediately gave rise to vigorous [criticism](#) and alternative modelling initiatives(see *Global Model Index*, 1995), notably that coordinated through the Fundacion Bariloche (Argentina) and work through the [International Institute for Applied Systems Analysis](#) (IIASA).

That known as the "Bariloche Model" was first presented in 1974 (A. O. Herrera et al. *Catastrophe or New Society? A Latin American World Model*. Canada: DRC, 1976). It represented both a response to the diagnostic and proposal embodied in World 3, and a new proposal for the global system. It remains to date the only global model made in the South although such modelling remains an important factor in North-South relations (Graciela Chichilnisky, *Global Models and North-South Relations*, *International Political Science Review*, 11, 2, Apr., 1990, pp. 177-185). The Bariloche Model differs from the Meadows Model in three important aspects: rejecting the notion that physical obstacles (energy and natural resources) pose the main threat to the continued development of humanity; being normative rather than descriptive; identifying a small number of key variables and subordinates system behaviour to these -- eliminating pollution and natural resources as factors.

As a follow-up to their involvement in *The Limits to Growth* exercise, [Donella H. Meadows](#) and [Dennis L. Meadows](#) founded in 1982 the International Network of Resource Information Centers ("[The Balaton Group](#)") a cross-disciplinary, multi-cultural, and inter-generational meeting point for leaders and thinkers in sustainable development. Activities have involved: more than 30 books, more than a hundred conferences, and uncounted computer models, training programs, planning methods, and educational games as a result of collaboration amongst its members. An overview of many global models was made for UNESCO in 1987 (Wolf Dieter Eberwein and Heinrich Siegmann, *Evaluating Long-term Developments by using Global Models*, UNESCO, 1987, BEP/GPI/4). It could be argued that in recent years "global modelling" has focused on "global climate modelling" -- a dimension absent from the the factors originally taken into account.

3. 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*. Allen and Unwin, 1969). The narrow focus of *The Limits to Growth* on only 5 key problems was instrumental in the formulation of a collaborative project by Mankind 2000 and the [Union of International Associations](#) from 1972 to produce a *Yearbook of World Problems and Human Potential* (1976), subsequently updated as an *Encyclopedia of World Problems and Human Potential* (1983-1986, 1988-1990, 1992-1995) before conversion into an online form (1997-2000) under a European Union contract (*Ecolynx: Information Context for Biodiversity Conservation*). Its many interlinked databases notably include profiles of 56,000 interlinked "[problems](#)" perceived by international organizations, together with 32,000 remedial "[strategies](#)" envisaged by international constituencies. The distinction between the system dynamics approach of *The Limits to Growth* and that of the topological network approach of the *Encyclopedia* initiative is discussed separately (*Global modelling perspective*) and has been subsequently summarized (*Metaphorical Geometry in Quest of Globality -- in response to global governance challenges*, 2009).

4. Following publication by [Ervin László](#) of *Goals for Mankind: a Report to the Club of Rome on the New Horizons of Global Community* (1976) a discussion in 1978 between the author and Aurelio Peccei, founder and first president of the Club of Rome, led to the founding of the [Club of Budapest](#) in 1993 as a framework for creative people in diverse fields of art, literature, and the spiritual domains of culture. It is dedicated to the proposition that "only by changing ourselves we can change the world -- and that to change ourselves we need the kind of insight and perception that art, literature, and the domains of the spirit can best provide".

Reports to the Club of Rome

Whilst there have been periods in which a "Report to the Club of Rome" was unambiguous and formally approved, it would appear that publications have been produced following tentative approval but without necessarily being finally and formally approved. Some may take the form of addresses to meetings of the Club of Rome (CoR) or expressions of intent by its members (which may not subsequently take the originally intended form). The following checklist has been developed from a variety of sources (including past CoR websites), supposedly identifying such reports with varying degrees of credibility. It is intended to cover the range of such possibilities, whether or not the status of a document can be fully clarified -- those highlighted are the most questionable. It is of course the case that some reports have been produced in several language versions, possibly edited down to a reduced format.

Checklist of Club of Rome reports (with indication of critical reviews on this site)						
Year	Title (English versions only)	Author(s)	Publisher	Pages	Digital	Comment / Reviews
1970	The Predicament of Mankind	Hasan Ozbekhan			[PDF]	"Report to..."
1972	The Limits to Growth	Donella H. Meadows , Dennis L. Meadows , Jorgen Randers , and William W. Behrens III.	New American Library Universe Books	207		"First Report to..."
1974	Mankind at the Turning Point	Mihajlo Mesarovic and Eduard Pestel.	E. P. Dutton Hutchinson (1975)	210		"Second Report to..."
1976	RIO Report: Reshaping the International Order	Jan Tinbergen (coordinator)	E. P. Dutton	325		
1977	Goals for Mankind: On the New Horizons of Global Community	Ervin László et al.	New American Library Signet Hutchinson	374		
1977	<i>Goals in a Global Community: The Original Background Papers for Goals for Mankind</i>	Ervin László and Judah Bierman	<i>Pergamon Press</i>	335		
1978	Beyond the Age of Waste	Dennis Gabor , Umberto Colombo et al.(+)	<i>Pergamon Press</i>	256		
1979	Energy: the countdown	Thierry de Montbrial	<i>Pergamon Press</i>	256		
1979	No Limits to Learning: Bridging the Human Gap	James W. Botkin , Mahdi Elmandjra and Mircea Malitza	<i>Pergamon Press</i>	159		
1980	Road Maps to the Future: towards more effective societies	Bohdan Hawrylyshyn	<i>Pergamon Press</i>	193		
1980	Tiers-Monde: Trois Quarts du Monde	Maurice Guernier	<i>Dunod</i>	153		
1980	Dialogue on Wealth and Welfare: An Alternative View of World Capital Formation	Orio Giarini	<i>Elsevier Pergamon Press</i>	406 386		
1981	L'Imperatif de Cooperation Nord-Sud:	Jean Saint-Geours	<i>Dunod</i>	124		

	<i>La Synergie des Mondes</i>				
1982	Microelectronics and Society, for Better and for Worse	Adam Schaff and Gunter Friedrichs	Pergamon Press	353	
1984	<i>Le Tiers Monde peut se Nourir: les communautés de base, acteurs du développement</i>	René Lenoir	Fayard	210	
1985	The Barefoot Revolution	Bertrand Schneider	Practical Action	296	
1986	The Future of the Oceans	Elisabeth Mann-Borgese	Harvest House	160	
1989	Africa beyond Famine	Aklilu Lemma and Pentti Malaska	Tycooly Intl	372	
1988	Africa Facing its Priorities	Bertrand Schneider	Tycooly Intl	128	
1988	Beyond the Limits to Growth	Eduard Pestel	Universe Books	191	
1989	Problems of World Industrialisation				Hannover Conference
1991	The First Global Revolution	Alexander King and Bertrand Schneider	Pantheon Simon and Schuster	259	"Report by..."
1993	The Limits to Certainty	Orio Giarini and Walter R. Stahel	Kluwer Academic	270	
1993	For a Better World Order	Nicole Rosensohn + Bertrand Schneider	Fundacion BBV	127	
1995	The Scandal and the Shame: Poverty and Underdevelopment	Bertrand Schneider	Vikas Publishing Bertelsmann	168	
1995	<i>Ist die Erde noch regierbar</i> (1995)	Yehezkel Dror	Bertelsmann	384	
1995	Taking Nature into Account: Toward a Sustainable National Income	Wouter van Dieren (Ed)	Springer	332	
1997	Factor Four: Doubling Wealth, Halving Resource Use	Ernst Ulrich von Weizsäcker , et al.	Allen and Unwin (1997) Droemersche Verlagsanstalt Th. Knaur Nachf (1995)	322	
1998	The Oceanic Circle: Governing the Seas As a Global Resource	Elisabeth Mann-Borgese	United Nations University Press	240	
1998	The Limits Of Social Cohesion: Conflict And Mediation In Pluralist Societies	Peter Berger	Westview Press Bertelsmann	416	
1998	<i>La red: cómo cambiarán nuestras vidas los nuevos medios de comunicación</i> (The Multimedia Society)	Juan Luis Cebrian	Círculo de Lectores		? not in English
1998	<i>Zece mii de culturi, o singură civilizație</i> Ten Thousand Cultures, One Single Civilization	Mircea Malitza	International Political Science Review January 2000		[PDF] two versions
1999	Globalization and Culture [?]	John Tomlinson	University of Chicago Press	248	? not a CoR report
1999	Governance in an era of Globalization	Ruud Lubbers	Globus Institute for Globalization and Sustainable Development		paper at Vienna meeting; not a report?
1999	<i>Die Kunst Vernetzt zu Denken: Ideen und Werkzeuge für einen neuen Umgang mit Komplexität</i>	Frederic Vester	Deutscher Taschenbuch Verlag (2002)	384	
2000	Menschlichkeit Gewinnt: Eine Strategie für Fortschritt und Führungsfähigkeit	Reinhard Mohn	Bertelsmann	256	
2001	Humanity at the Crossroads	Daisaku Ikeda and Karan Singh	Oxford University Press		1988? (but not later)
2001	The Capacity to Govern	Yehezkel Dror	Routledge	264	
2001	World Economic and Environmental Order	Ramone Tamames			[PDF]
2002	Globalization, Governance and Sustainable Development				theme of 1999 CoR conference
2003	The Double Helix of Learning and Work	Orio Giarini and Mircea Malitza	UNESCO Studies on Science and Culture	174	[PDF]
2004	Limits to Growth: a 30 year update	Donella H. Meadows , Jorgen Randers Dennis L. Meadows ,	Chelsea Green	368	not a Report to CoR?
2003	A New World Order without Ideologies	HRH Prince El Hassan bin Talal			CoR Presidential Address
2004	Global Foresight	HRH Prince El Hassan bin Talal			CoR Presidential Address
	The Future of People with Disability in the				presented to Ankara

2005	World: Human Development and Disability	Rafael de Lorenzo Garcia	Fundacion Oncé	192	[PDF]	Conference of CoR (2002)
2006	Rethinking Civilization: Resolving Conflict in the Human Family	Majid Tehranian	Routledge	240		
2006	Global Population Blow-Up and After: the demographic revolution and information society	Sergey P. Kapitza	Global Marshall Plan Initiative	272	[PDF]	
2006	The Employment Dilemma and the Future of Work	Orio Giarini and Patrick M. Liedtke	The Geneva Association	164	[PDF]	
2006	Limits to Privatization: How to Avoid Too Much of a Good Thing	Ernst Ulrich von Weizsäcker (Ed.)	Earthscan Publications	256		
2007	The Art of Interconnected Thinking. Ideas and Tools for tackling with Complexity	Frederic Vester	Mcb Verlag	366		
2009	Factor Five: Transforming the Global Economy through 80% Improvements in Resource Productivity	Ernst Ulrich von Weizsäcker, Karlson Hargroves, Michael H. Smitz, Cheryl Desha, Peter Stasinopoulos	Earthscan Publications	448		
2009	The Blue Economy	Gunter Pauli	Redwing Books	224	[PDF]	
2011	Global Prospects for Full Employment	Garry Jacobs and Ivo Šlaus		50	[PDF]	Discussion paper 2/11
2012	2052: a Global Forecast for the Next Forty Years	Jorgen Randers	Chelsea Green	304		
2012	Bankrupting Nature: Denying our Planetary Boundaries	Johan Rockstrom and Anders Wijkman	Routledge	224		
2014	Extracted: How the Quest for Mineral Wealth Is Plundering the Planet	Ugo Bardi	Chelsea Green	323		? Report to the Club
2015	Change the Story, Change the Future: A Living Economy for a Living Earth	David C. Korten	Berrett-Koehler	200		? Report to the Club
2015	On the Edge: The State and Fate of the World's Tropical Rainforests	Claude Martin	Greystone Books	279		
2015	To Choose Our Future	Ashok Khosla	Academic Foundation	128		Report by Co-President
2016	Reinventing Prosperity: Managing Economic Growth to Reduce Unemployment, Inequality and Climate Change	Graeme Maxton and Jorgen Randers	Greystone Books	272		
2017	The Seneca Effect: Why Growth is Slow but Collapse is Rapid	Ugo Bardi	Springer	210		
2018	Come On! Capitalism, Short-termism, Population and the Destruction of the Planet	Ernst von Weizsaecker and Anders Wijkman	Springer	220		

Declarations and Statements of the Club of Rome

Date	Place	Title	Source	Comment
2009	Amsterdam		Text	Climate Energy and Economic Recovery
2005	Tunis	Towards a New Age of Information and Knowledge for All	Text	Statement to the World Summit on the Information Society
2002	Johannesburg	No Limits to Knowledge, but Limits to Poverty	Text	Statement to the World Summit on Sustainable Development
1996	Brussels		Text	Orientation of the Club of the Rome for the 21st century.
1991				Declaration of Human Responsibilities and Duties
1989	Hannover			25th Anniversary meeting: The Capacity to Govern

Comment on bifurcations of the Club of Rome initiative

Whilst the Club of Rome initiative, and the various "bifurcations", are all framed in terms of a concern with "mankind" or "humanity", they might be briefly distinguished by caricatures as:

- primarily focused on **influencing decision-makers** and power-brokers through meetings -- as in the case of the Club of Rome
- primarily focused on the global modelling possibilities of **system dynamics** using a highly restricted number of key variables -- as in the successor variants of World3
- primarily focused on **consientization through culture** -- as with the the manifestations of the Club of Budapest
- primarily focused on **profiling and interlinking articulated concerns** of international constiencies in all their variety, without prejudging their significance or importance -- as with the *Encyclopedia of World Problems and Human Potential*

As demonstrated by the United Nations Climate Change Conference (Copenhagen, 2009), it is not what some assume to be the "facts"

that elicits a political consensus or reflects the actual dynamics of a global psychosocial system. The challenge remains one of engaging with divergent "perceptions" and determining what scope there is for configuring them more fruitfully.

A "global" psychoanalyst, if such existed, might explore these schismatic outcomes as complementary modalities -- as "ways of knowing", ways of "framing" and "engaging" with assumed "realities". Significantly there are only anecdotal accounts concerning the unfruitful dynamics between these various modes and the lack of any suggestion as to how they might be "integrated" -- whatever that might mean in practice. Little effort has been put into understanding schismatic tendencies -- the origins of breakaway initiatives. Curiously those individually involved tend to maintain degrees of association between such contexts. Reference may be made in passing to the challenges of "personalities" and "egos", but with little effort to map out the array of individuals associated with that 40-year process and the degree of interaction between them -- or lack of it. Why not? Provocatively the question may be framed metaphorically as a question of "body odour" between "gurus" of any status (*Epistemological Challenge of Cognitive Body Odour: exploring the underside of dialogue*, 2006).

This possibility was perhaps implicit or embryonic in the interactions of those involved in the pre-1970 period and as such partly evident in Hasan Ozbekhan's original "prospectus" on *The Predicament of Mankind: Quest for Structured Responses to Growing World-wide Complexities and Uncertainties* (1970). Of interest in that respect is the description by Alexander Christakis of *A Retrospective Structural Inquiry of the Predicament of Mankind Prospectus of the Club of Rome* (In: John P. van Gigch and Janet McIntyre-Mills, *Rescuing the Enlightenment from Itself Critical and Systemic Implications for Democracy: Prospectus of the Club of Rome*, Springer, 2006) with respect to use of the Structured Design Science (SDS) paradigm:

In 1993, twenty-three years after the conceptualization of the *Problematique*, a small team composed of three of the original architects of the CoR proposal employed the SDS paradigm to conduct a retrospective inquiry of the global *Problematique*. The findings from this inquiry demonstrate that no significant progress had been made in terms of resolving the root causes of the *Problematique* in the ensuing twenty-three years, i.e., 1970-1993. It is conjectured that a similar inquiry conducted today, i.e., ten years later, will reaffirm the lack of progress in resolving this enormous problem of humankind.

Christakis quotes the following paragraphs from the 1970 prospectus (adding emphases):

The source of our power lies in the extraordinary technological capital we have succeeded in accumulating and in propagating, and the all-pervasive analytic or positivistic methodologies which by **shaping our minds as well as our sensibilities**, have enabled us to do what we have done. Yet our achievement has, in some unforeseen (perhaps unforeseeable) manner, failed to satisfy those other requirements that would have permitted us to evolve in ways which, for want of a better word, we shall henceforth call 'balanced.' It has failed to provide us with an ethos, a morality, ideals, institutions, a vision of man and of mankind and a politics which are in consonance with the way of life that has evolved as the expression of our success. Worse, it has failed to give us a global view from which we could begin to conceive the ethos, morality, ideals, institutions, and policies requisite to an interdependent world -- this, despite the fact that the dynamics of our technologies and our positivistic outlooks are global in their impacts, their consequences, their endless profusion and, more importantly, in the promises they proclaim and in the promises they imply.

This failure is often regarded as having created a number of separate and discrete problems capable of being overcome by the kind of analytic solutions our intellectual tradition can so readily generate. However, the experience of the past twenty or thirty years has shown with remarkable clarity that the issues which confront us in the immediate present, as well as their undecipherable consequences over time, **may not easily yield to the methods we have employed with such success in the bending of nature to our will.**

Such apparent resistance could be attributable to many things, none of which must be pre-judged, but about which certain assumptions might be made. It could be due, for instance, to the magnification of the problems we must grapple with -- that is, to the fact that almost all of them are global in scope, whereas the socio-political arrangements we have created are ill-equipped for dealing with issues that fall outside their strictly established jurisdictions. It could be due to heightened yet often obscure interactivity among phenomena, whereas our manner of solving problems owes its strength and efficiency to the identification of rather clear and direct lines of causality. It may be due to rapid rates of change, especially in the technological sector, whereas our institutions, outlooks and minds are geared by long-time habit to beliefs in slow unfolding and permanence -- beliefs which have sustained certain relatively stable concepts of polity, of social order and of intellectual orderliness. In brief, whatever it is due to, the conjuncture of events that surrounds us is to all evidence world-wide, complex, dynamic, and dangerous.

In subsequent development of the thinking articulated in the [commentaries](#) on the online *Encyclopedia of World Problems and Human Potential*, and in those on its [sub-projects](#), emphasis has been placed on the challenge of cognitive configuration capable of eliciting psychoactive "engagement" in order to achieve strategic "traction" (*Metaphorical Geometry in Quest of Globality -- in response to global governance challenges*, 2009). The analytical "way of knowing" does not currently give credence to the challenge of its eroding credibility -- following decades of insightful comment on the "predicament" and hopeful appeals for "change". The climate change debate, with its associated modelling exercises (and significant omissions), are an illustration of this (*Insights for the Future from the Change of Climate in Copenhagen*, 2010), raising the question of *Climate change used as a fig leaf -- to conceal a more challenging issue?*.

Whilst implicit in the original inspiration of the early 1970s, the psychosocial dynamics of the response to any predicament have not been addressed -- as exemplified by the above schismatic bifurcations. These indicate, in the terms of Gregory Bateson, the degree to which: *We are our own metaphor*. A speculative exploration developed in that period is indicative of the possibility (*World Dynamics and Psychodynamics: a step towards making abstract "world system" dynamic limitations meaningful to the individual*, 1971).

In a world of "spin", increasingly "engagement" and strategic "traction" are becoming intimately associated with a "non-linear" marriage between complexity and imagination (*Imagining the Real Challenge and Realizing the Imaginal Pathway of Sustainable Transformation*, 2007; *Relevance of Mythopoeic Insights to Global Challenges*, 2009). The challenge of "hearts and minds" is not restricted to the engagement with terrorism.

Contrasting initiatives and concerns

Indication of critical reviews and reactions on this site relating to selected Club of Rome reports		
Year	Title of Club of Rome report (English versions only)	Critical review on this site
1972	The Limits to Growth	World Dynamics and Psychodynamics: a step towards making abstract "world system" dynamic limitations meaningful to the individual (1971)
1974	Mankind at the Turning Point	Encyclopedia of World Problems and Human Potential (1976-) - produced in reaction to the constrained framework of <i>Limits to Growth</i>
1977	Goals for Mankind: On the New Horizons of Global Community	Limits to Human Potential (1976)
1977	Goals in a Global Community: The Original Background Papers for Goals for Mankind	Human Values Project
1979	No Limits to Learning: Bridging the Human Gap	Societal Learning and the Erosion of Collective Memory a critique of the Club of Rome Report: No Limits to Learning (1980)
1991	The First Global Revolution	
1993	The Limits to Certainty	
1993	For a Better World Order	
2001	The Capacity to Govern	
2003	The Double Helix of Learning and Work	
2006	Global Population Blow-Up and After: the demographic revolution and information society	
2006	The Employment Dilemma and the Future of Work	Sustainable Lifestyles and the Future of Work: Learnings from The Employment Dilemma and the Future of Work (1996 comment on draft)
2007	The Art of Interconnected Thinking. Ideas and Tools for tackling with Complexity	Imagining the Real Challenge and Realizing the Imaginal Pathway of Sustainable Transformation (2007)
2012	2052: a Global Forecast for the Next Forty Years	Engendering 2052 through Re-imagining the Present: Review of a report to the Club of Rome (2012)
2012	Bankrupting Nature: Denying our Planetary Boundaries	Recognizing the Psychosocial Boundaries of Remedial Action: constraints on ensuring a safe operating space for humanity (2009)
2018	Come On! Capitalism, Short-termism, Population and the Destruction of the Planet	Exhortation to We the Peoples from the Club of Rome (2018)

In addition to the above bifurcations, the Club of Rome initiative -- together with those bifurcations in some sympathy with it -- has evoked several **movements in opposition to what it represents**, especially as a consequence of perceived elitism, exacerbated by any secretiveness and western bias:

- concern articulated by **alternative, grassroots social movements** inherently opposed to the elitism of any such initiative. The Club, and its membership, is readily associated with the [World Economic Forum](#), and its much criticized promotion of economic globalization at all costs (held to be intimately related to the disastrous global financial collapse of 2008-2009), in contrast to views articulated through the [World Social Forum](#). Other associations are recognized with even more secretive contexts ([Bilderberg Group](#), [Trilateral Commission](#), etc). This pattern recalls that revealed in the corporate world between interlocking directorates (John Scott (ed), *The Sociology of Elites. Interlocking Directorships and Corporate Networks*, 1990).
- concern with any "New World Order" agenda that it, and those remotely associated with it, represent. This concern includes conventional **national political opposition** to any unrepresentative "global" initiative. It is currently exemplified by perceptions of the role of the Club of Rome in relation to climate change debate (*Club of Rome is the Elite Think Tank behind ideas such as "Sustainable Development" and "Global Warming"; The Club of Rome and The Global Warming Scam; The criticism of the 'Club of Rome' models by Resources For the Future clearly applies to the Global Climate Models' predictions of doom; Global warming hysteria serves as excuse for world government*). However this overlaps with more or less extreme forms of conspiracy theory regarding the nature of any secretive agenda
- concern with a secretive "New World Order" agenda, notably in the light of **conspiracy theories** regarding [Freemasonry](#), [Illuminati](#), and [New Age](#) movements. Many web documents regarding the Club of Rome are framed in terms of such associations.

Whatever the flavour of such opposition, to the extent that the individuals and groups associated with the Club of Rome are considered (if only by themselves) to be at the centre of global leadership, the widespread sense that this leadership is manifestly defective needs to

be taken into account as a reality (*Emergence of a Global Misleadership Council misleading as vital to governance of the future?* 2007).

With respect to the earlier comment of achieving "engagement" and strategic "traction" with "hearts and minds", it would be naive to reject any of these views as simply misinformed, if not delusional -- even deliberately elicited through other secret agendas. Again, in a world where "spin" is of considerable political importance, it may be irrelevant whether such views are perceived to be "misinformed" in any way. The issue is whether they engage attention and acquire credibility. Any posture assuming the credibility of declarations by eminent authorities (purporting to formulate a "correct" understanding) is now increasingly mistaken beyond the immediate sway of those authorities (*Abuse of Faith in Governance*, 2009). The credibility of science, as so visibly represented by climate change scientists, is now suspect (George Monbiot, *The trouble with trusting complex science*, *The Guardian*, 8 March 2010). Many have noted the erosion in the credibility of the Vatican as a result of the cover-up of cases of sexual abuse by clergy.

Each of these modalities is, to different degrees, a reflection of the imagination with which it is necessary for any form of governance to engage in order to achieve "traction" -- an imagination typically deprecated by analysis except with respect to theoretical speculation:

- imagination relating to **local community engagement**, otherwise threatened by an instrumental external mindset
- imagination relating to **national identity**, otherwise threatened by global initiatives
- imagination triggered by the **excitement of unusual speculation**, as cultivated by the media and various belief systems (in contrast to increasingly alienating conventional thinking)

Viable governance for the future would seem to need to incorporate such dimensions rather than seeking to marginalize them -- for in seeking to do so it increasingly alienates itself from voters. The challenge may be one of reframing all strategic initiatives through new metaphors that can be readily communicated (*In Quest of Mnemonic Catalysts -- for comprehension of complex psychosocial dynamics*, 2007).

Integrative exercise for the future

The dysfunctional fragmentation associated with the above bifurcations, recalls the much-quoted warning of **George Santayana**: *Those who cannot remember the past are condemned to repeat it*. Following recent concern with an integrative approach to the future, it would seem appropriate to point to possibilities that remain to be explored (*Self-reflexive Challenges of Integrative Futures*, *Futures*, 40, 2, March 2008).

Given that the Club of Rome initiatives of the past, and the bifurcations, together reflect a primarily western bias, the emergent role of China on the global scene suggests the special merit of giving some consideration to frameworks emerging from that culture. This is consistent with the argument of Susantha Goonatilake (*Toward a Global Science: mining civilizational knowledge*, 1999) as separately discussed (*Enhancing the Quality of Knowing through Integration of East-West metaphors*, 2000). The relevance of traditional cultural concepts has recently been recognized in relation to China's foreign policy (David Lai, *Learning from the Stones: a go approach to mastering China's concept, Shi*, Strategic Studies Institute, United States Army War College, 2004).

Of particular relevance to this exercise is the emerging recognition of the relevance of Chinese insights in cybernetics (Maurice Yolles and Paul Iles, *The Knowledge Cybernetics of Culture: the case of China*, *International Journal of Knowledge and Systems Sciences*, 3, 4, December 2006; Maurice Yolles and Zude Ye, *From Knowledge Cybernetics to Feng Shui*, 2005). There is some irony to this given that Chinese culture was one of the early inspirations for the binary coding system fundamental to computer operation.

The above-mentioned *Encyclopedia of World Problems and Human Potential* contained an experiment in the interpretation of the Chinese classic, the *I Ching* (or *Book of Changes*), for contemporary strategic issues, given the appreciation of its traditional role in Chinese governance (*Transformation Metaphors -- derived experimentally from the Chinese Book of Changes (I Ching) for sustainable dialogue, vision, conferencing, policy, network, community and lifestyle*, 1997).

A much-debated, western synthesis is the **AQAL framework** of the Integral Movement, instigated by **Ken Wilber**, which endeavours to integrate eastern perspectives (Steve McIntosh, *Integral Consciousness and the Future of Evolution: how the integral worldview is transforming politics, culture and spirituality*, 2007). The question is whether such inherently integrative perspectives would reframe the Club of Rome initiative and its bifurcations -- if new responses to the "predicament of mankind" are to be envisaged. It is of course also the case that any such initiative, however integrative its intentions, evokes bifurcations which presumably need to be understood as a feature of change itself, as tentatively discussed (*Coherent Patterns of Schism Formation, Bifurcation and Disagreement -- and the associated bonding, encounters and agreements they evoke*, 2001) -- as indeed implied by the interrelated conditions of the "*Book of Changes*".

This possibility is explored more extensively in an Annex on *System Dynamics, Hypercycles and Psychosocial Self-organization: exploration of Chinese correlative understanding* (2010).

Requisite map for governance in the future?

Where is the map to navigate a turbulent emerging future? How best to understand the form and shape of the space "populated" by the above initiatives?

Mapping the set: It might be assumed that the reports to the Club of Rome, as a set, constitute the reference points on a map for governance in the future. The report on *The Limits to Growth* was intended to serve that purpose to some degree. The many other reports listed above do indeed constitute markers for such governance. But as a set they have not been integrated into any kind of coherent map. They have not been "branded" as a set to create a common identity for image-building and marketing purposes. In their tendency to respond to specific issues, they necessarily avoid elaborating a framework for those that preceded them, or for those to follow. There is no such framework, although references to *The Limits to Growth* still serve as a reminder of what might have been

possible -- however much that possibility has been deprecated. The relation of any one report to the set may only be indirect, incidental and possibly opportunistic.

It is appropriate to note that there now exist software applications (such as *Leximancer*) which can ingest large quantities of documents and generate integrative concept maps from the set of documents as a whole. Clearly it would be a simple matter to do that for the above set of reports to the Club of Rome. The question is why is no case made for doing so and why exploring the result would be challenging. Is there a sense in which neither governors nor governed want anything that might function like a "map"?

The various bifurcations in their own way endeavour to map out frameworks but they also do not constitute a map. Together these initiatives, and the frustration at their inadequacies, justify the loss of credibility of governance -- irrespective of scandals and other examples of misleadership. The challenge is complicated by an assumption that increasing "globalization" is effectively "flattening" Earth, as argued by [Thomas L. Friedman \(*The World Is Flat*, 2005\)](#) -- a view previously criticized ([Irresponsible Dependence on a Flat Earth Mentality -- in response to global governance challenges](#), 2008). The sense of flatness -- a "flat map" -- is however useful if it is intended to frame all those who do not agree with the globalization agenda (with which the Club of Rome has been significantly assumed to be associated) as having "fallen over the edge" -- to "where monsters and dragons dwell". Equally, those opposed to any such "alternative" agendas may be assumed, from that perspective, to have also "fallen over the edge" -- logical for a "flat" Earth with two "sides". This antiquated approach to mapping -- reminiscent of those of deprecated ancient myths -- does not contribute to resolving the challenge of integrating both perspectives ([All Blacks of Davos vs All Greens of Porto Alegre: reframing global strategic discord through polyphony?](#) 2007).

Criteria for a useful map? This leads to the question what might constitute a valued map? What might be the characteristics of such a map? Of particular interest is the design of any "map" to traverse the chaos of the global civilizational collapse which may be anticipated ([Karen A. Cerulo, *Never Saw It Coming: cultural challenges to envisioning the worst*, 2006](#); [Jared M. Diamond, *Collapse: how societies choose to fail or succeed*, 2005](#)). This has been explored as a speculative exploration into designing "maps" enabling a degree of past civilization to survive into the present ([Minding the Future: thought experiment on presenting new information](#), 1980). Another approach, in the light of current reflections by a number of authors on cognitive engagement with the environment is, controversially, to consider the territory as the map -- a practice common in indigenous societies ([The Territory Construed as the Map: in search of radical design innovations in the representation of human activities and their relationships](#), 1979).

It could be fruitfully assumed that each of the initiatives, and their components, could be understood as a consequence of a form of speciation within an ecosystem of modelling/mapping approaches. The emergence of new initiatives would then be an effort to establish a distinct competitive advantage, whether or not the older efforts continue to co-exist with the newer, at least to some degree. The maps could then each be seen as partial approaches to a more comprehensive understanding. Mapping the "location" of the initiatives in relation to one another would then constitute a significant exercise in self-reflexivity -- compensating for the tendency of each to imply claims for more comprehensive significance that is appropriate.

Why is self-reflexivity resisted in relation to mapping psychosocial dynamics ([Consciously Self-reflexive Global Initiatives: Renaissance zones, complex adaptive systems, and third order organizations](#), 2007)? Factors for an "eightfold way" which merit discussion include:

- uptake/consensus:
 - uptake: namely the consideration given to any mapping initiative from other perspectives, as with the production of the various initiatives above
 - consensus: as with the challenge highlighted in relation to climate change science and appropriate strategy, notably as dramatically articulated in a widely syndicated editorial ([Fourteen days to seal history's judgment on this generation](#), *The Guardian*, 7 December 2009).
- criticism/animosity:
 - criticism: namely the technical criticism advanced, as with reactions to any modelling initiative, specifically as documented by Graham Turner ([A Comparison of the Limits to Growth with Thirty Years of Reality](#), CSIRO 2007)
 - animosity: as a significant factor in the interrelationship between mapping initiatives, as recognized with respect to business in *The Economist* ([Look Forward in Anger: personal animosity is a mighty force in business, for good as well as ill](#), 20 March 2010).
- complexity/time required:
 - complexity: given that the more complex the map, the less likely it is to be widely comprehended and used, and the greater the potential for unremarked errors
 - time required: in a context of increasing information overload, any mapping tool requiring significant learning time is liable to be readily ignored
- attention span/forgettability:
 - attention span: in what has been recognized as an emergent "blip culture", the attention span available for absorption of information on a map may be inadequate in comparison with what is required to make effective use of it
 - forgettability: the 40-year span of this review highlights many initiatives which have been readily forgotten in a context where the erosion of collective memory is a factor, as previously highlighted ([Societal Learning and the Erosion of Collective Memory: a critique of the Club of Rome Report: No Limits to Learning](#), 1980).

Essentially these points raise the question of whether designing a map of value for global governance should build in factors regarding the process of how it is designed, used and comprehended -- notably with respect to what may be ignored, as previously discussed ([Mapping the Global Underground](#), 2010; [Recognizing the Psychosocial Boundaries of Remedial Action: constraints on ensuring a safe operating space for humanity](#), 2009). Basically the question is how self-reflexive is the map?

Configuring "sides" and "braiding" discourse: Part of the challenge of "global" democracy is to configure the many "sides" into as

close an approximation to the sphere constituted by the "globe" in reality (*Spherical Configuration of Categories -- to reflect systemic patterns of environmental checks and balances*, 1994). This is a cognitive challenge as well as a socio-political challenge, discussed separately in terms of polyhedral governance (*Towards Polyhedral Global Governance: complexifying oversimplistic strategic metaphors*, 2008; *Metaphorical Geometry in Quest of Globality -- in response to global governance challenges*, 2009). Whilst it is accepted as a fact that there are people on the other "side" of the world who are awake (whilst those on this "side" are asleep), it remains difficult to integrate the reality of this awareness -- as jet lag so ably demonstrates.

To the extent that the initiatives (and those identified with them) effectively constitute or are associated with threads of discourse, the challenge of "mapping" may also be expressed as one of "weaving" together variously coloured threads (*Interweaving Thematic Threads and Learning Pathways: noonautics, magic carpets and widdomes*, 2010). The braiding together of threads in this way may indeed be implicit in the relations between "conversations" amongst the participants in the above initiatives over the years. The question is what explicit form this might take that would be as fruitful as the mythical *Ariadne's thread* -- for the guidance of global governance out of the labyrinth of challenges. Given the distinctive implicit "colouring" of the hexagrams, their pattern above might be considered indicative of cognitive "braiding" possibilities -- especially in the light of the knowledge cybernetics explored by Maurice Yolles (as mentioned above)..

Given the potential cognitive implication of self-reflexivity in relation to governance, "braiding" can then be appropriately considered in the light of the argument of *Douglas Hofstadter (Gödel, Escher, Bach: an Eternal Golden Braid*, 1979). Such a braid offers a further possibility of considering a simplistic caricature of the potential implicit in what the future may recognize as the "functionally requisite" bifurcations above (ignoring the cross-overs between them):

- **Gödel (incompleteness theorems)**: with which the mathematics of the modelling initiatives are potentially most closely associated (implying useful questions regarding the scope of global models and the factors they ignore in the face of uncertainty). This "thread" has not yet been able to correct the tendency either to base strategic initiatives on singular metrics or to omit such factors as population from climate change concerns (*Uncritical Strategic Dependence on Little-known Metrics: the Gaussian Copula, the Kaya Identity, and what else?* 2009).
- **Escher** (visualization of paradox): with which the visualization experiments with the thousands of loops of connectivity in the databases of the *Encyclopedia* initiative might be most closely associated (especially in the light of the carefully profiled contradictions). Despite the explosion in "networking" and "visualization", this "thread" has not yet been able to enable relevant configurations of higher order of integration and comprehensibility of "dissonant" complementary perspectives (*Polyhedral Empowerment of Networks through Symmetry: psycho-social implications for organization and global governance*, 2008).
- **Bach**: with which the cultural preoccupations of the Club of Budapest are most closely associated (especially in its related consideration of the cybernetics of human knowing and second order cybernetics). This "thread" has as yet been unable to integrate the diversity of psychosocial preferences -- "ways of knowing" -- best exemplified by the use as an anthem by the European Union of Beethoven's *Ode to Joy* in contrast with European popular acclaim for the demonically-masked heavy metal/rock band *Lordi*, winners of the 2006 Eurovision Song Contest (*Strategic Challenge of Polysensorial Knowledge: bringing the "elephant" into "focus"*, 2008) .

Given the shared original governance preoccupation with the "predicament of mankind", the potential implicit in these approaches can be reframed in terms of the refinement recently brought to his original argument by Hofstadter in *I Am a Strange Loop* (2007). There he sought to clarify the central message of *Gödel, Escher, Bach* by demonstrating how the properties of *self-referential* systems can be used to describe the unique properties of human minds -- and consequently of the human identity at the core of the "predicament" and any strategically relevant effort to comprehend it. Of course if the myth of Ariadne (and the navigation by governance out of the labyrinth of that predicament) is to be taken further, consideration can be given to handling the *Minotaur* dwelling in that labyrinth (*Viable Global Governance through Bullfighting: challenge of transcendence*, 2009). Paradoxically, an essential feature of the predicament for many individuals in navigating their lives is the sense in which the *Minotaur* is an extremely appropriate caricature of their own experience of global governance -- exemplified by 9/11 and its consequences (*Promoting a Singular Global Threat -- Terrorism: strategy of choice for world governance*, 2002). The "Minotaur" has become the strategic "elephant in the living room" serving to mirror denial and to enhance the credibility of the above-mentioned conspiracy theories.

Recognition of Le Chatelier's Principle: Of relevance to the threatening labyrinthine dynamics of the *Minotaur* is the insight of management cybernetician *Stafford Beer* (on *Le Chatelier's Principle* as applied to social systems):

Reformers, critics of institutions, consultants in innovation, people in short who "want to get something done", often fail to see this point. They cannot understand why their strictures, advice or demands do not result in effective change. They expect either to achieve a measure of success in their own terms or to be flung off the premises. But an ultra-stable system (like a social institution)... has no need to react in either of these ways. It specializes in equilibrium readjustment, which is to the observer a secret form of change requiring no actual alteration in the macro-systemic characteristics that he is trying to do something about." (*The cybernetic cytotblast - management itself*, Chairman's Address to the International Cybernetic Congress, September 1969)

Immediately predating Ozbekhan's original proposal to the Club of Rome, it would seem that these dynamics could usefully be built into any future consideration of global strategic management.

Psychoactive engagement: More intriguing is the assumption that the desirable global map is something to be "looked at" rather than being a new kind of psychoactive medium through which people can engage and by which they can be engaged. Steps in this direction are evident in the technology of *situation rooms* and in the experimental, scientific immersion environment of *Allosphere* (*Topology of Valuing: psychodynamics of collective engagement with polyhedral value configurations*, 2008). A case can be made for the dramatically

increasing role of interactive video games as a collective transformation towards an engaging, interactive map of relevance to governance (*Playfully Changing the Prevailing Climate of Opinion: climate change as focal metaphor of effective global governance*, 2005).

It is not recognized how much is built into assumptions about the appropriateness of the flat surface on which the text of the above reports are all written. By contrast, a torus holds an interesting position in the discussion of the relationship between form and medium as fundamental to advanced theories of communication. This notably featured in the work of Niklas Luhmann (*Die Gesellschaft der Gesellschaft*, 1997) as discussed by Michael Schiltz (*Form and Medium: a mathematical reconstruction, Image [&] Narrative*, 6, 2003) in relation to the calculus of indications of George Spencer-Brown (*Laws of Form*, 1969/1994). Schiltz notes that form/medium is "the image for systemic connectivity and concatenation", as described by Humberto Maturana and Francesco Varela. He further notes, that the notion of "space" is the key to reflexivity appropriate to any discussion of form and medium, citing Spencer-Brown (see discussion in *Comprehension of Requisite Variety for Sustainable Psychosocial Dynamics*, 2006).

There is however a certain irony to the fact that the *I Ching* itself has been used as a kind of map as with the geomantic compass (*Feng Shui* compass or *luopan*). Whilst these, and their western equivalents, are now deprecated as technologies of any value (except in construction work in Asia), they are indicative of a dimension missing from the kinds of mapping representation upheld as desirable for decision-making and governance. Put succinctly, blockbuster movies and videos -- like *Avatar* (2009) -- have immensely greater capacity to engage the populations of the world (*Relevance of Mythopoeic Insights to Global Challenges: cognitive integration implied by the Lord of the Rings*, 2009). Whether "map", "myth" or "compass", perhaps there is a need to shift to a preoccupation with these (and other possibilities) as richer metaphors offering enhanced coherence in governance (*Guiding Metaphors and Configuring Choices*, 1991; *In Quest of Mnemonic Catalysts -- for comprehension of complex psychosocial dynamics*, 2007).

The question is what can be learnt about framing the future from what in reality engages people? Have the set of reports to the Club of Rome, as a set, been designed with this in mind?

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