



# laetus in praesens

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## Organizing the Future of Humanity

### Critical dimensions to be born in mind

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Commentary on *Surviving and Thriving in the 21st Century: a discussion and Call to Action on Global Catastrophic Risks* (2020)  
arising from a roundtable of the Commission for the Human Future

#### Introduction

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## Introduction

The [Commission for the Human Future](#) convened an expert roundtable of Australian scientists, business leaders, public servants and academics which has called for the world's nations to come together to develop a strategy for human survival. This was announced as a *Call for a Global Plan for Human Survival* (Media release, 28 March 2020) and subsequently as a *Call to Action on Global Catastrophic Risks* (Media release, 22 April 2020). This has resulted in a report (*Surviving and Thriving in the 21st Century: a discussion and Call to Action on Global Catastrophic Risks*, 2020).

The report is divided into three Parts:

- The Challenge, in which ten risks are identified
- Pathways ahead
- Towards solving our greatest risks.

It includes a set of five Appendices:

1. Contributors to the CHF Roundtable Discussion and Report
2. Commission for the Human Future Communique, March 28, 2020
3. Resources on Catastrophic Risk and its Solution (listing activities and reports on global risks by a "growing network of august institutions and individuals round the Planet, and their invaluable contribution to our own deliberations").
4. About the Commission for the Human Future (indicated to be "a body of researchers and concerned citizens dedicated to finding and developing solutions to the greatest challenge in human history -- the complex of catastrophic global threats that now confront us all")
5. Become a Supporter of the Commission for the Human Future

Most of the contributors prepared a page of key points for consideration by participants in the Roundtable before the discussion began. Three separate sessions were held by Zoom, each lasting more than 1.5 hours. Each was attended by 30+ of the participants. Each of the three sessions was recorded and the discussion was transcribed and distributed to all participants. This report has been authored for the Commission by an editorial group of five: [John Hewson](#), [Arnagretta Hunter](#), [Bob Douglas](#), [Julian Cribb](#) and [Alison Leigh](#), who have drawn from the transcripts and key points.

In commenting on this initiative, the concern here is not to focus on the content, since the points made feature to a varying degree in the articulations of other initiatives, as the Report notes in Appendix 3. **The concern here is the role of yet another articulation in a context in which such reports have tended to be ignored -- to the point of being readily forgotten.** How is that phenomenon to be self-reflexively recognized and addressed within reports contributing to that pattern? Insights in that regard are themselves dangerously neglected (Michael Wogalter, *Handbook of Warnings*, 2006; Karen A. Cerulo, *Never Saw It Coming: cultural challenges to envisioning the worst*, 2006).

Potentially more problematic is the tendency of such reports to ignore the specific contributions of their predecessors without accounting for what they consider to be irrelevant. In this case the argument focuses on how such a report can be organized in terms of "ten risks" without clarifying why a larger or smaller number would not be more appropriate -- given the complexities of a crisis of crises, as recognized to varying degrees by others.

The ambiguity of a homonym is deliberately implied in the subtitle to emphasize that the number of critical dimensions discussed is both cognitively engendered and sustained thereafter by psychosocial processes. This is considered consistent with the arguments of [George Lakoff](#) and [Rafael E. Núñez](#) (*Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2000).

The commentary concludes with a variety of dynamic representations in 3D of any 10-fold pattern of "risks", values, or strategic commandments reframing the tendency to represent them as bullet-points or "pillars" (*Coherent Value Frameworks: pillar-ization, polarization and polyhedral frames of reference*, 2008). These follow from earlier experiments of current relevance (*Spike-endowed Global Civilization as COVID-19: Humanity "bristles" as the world "burns"*, 2020).

## Risks? Threats? Challenges? Goals?

A specific focus of the argument here regarding the new report is the identification of "ten risks" as a singular "challenge" -- otherwise termed "catastrophic threats" by rapporteurs of the initiative ([Arnagretta Hunter](#) and [John Hewson](#), *10 Catastrophic Threats Are Facing Humans Right Now, And Coronavirus Is Only One of Them*, *Science Alert*, 25 April 2020).

This contrasts in a manner which merits clarification with the focus of preceding initiatives on the 15 [Global Challenges](#) of the Millennium Project and the 14 [Grand Challenges for Engineering in the 21st Century](#), as framed by the US National Academy of Engineering (2020). The latter are themselves framed by a focus by the UN on "goals", namely the 17 [Sustainable Development Goals](#), superseding the 8 [Millennium Development Goals](#). Only the SDG initiative is mentioned in the new report.

With respect to challenges, the [Global Challenges Foundation](#) (unmentioned by the report) specifically identifies a set of 3 "global catastrophic risks" and a further set of 6 "other risks". It does not appear to frame the "challenges" in other terms. Similarly it is unclear how these should be related to the 15 "global challenges" of the Millennium Project. There is obviously a further concern in relating challenges, risks, and threats to the goals variously articulated by the United Nations.

Is it the case that the terminology is essentially irrelevant? Should any confusion be resolved by wording to the effect that **risks are a threat and the challenge is to mitigate them in pursuit of goals** -- possibly in the light of strategic "pillars"?

Potentially more confusing, on the assumption that some such correspondence can be recognized, is how to handle differences in the numbers of such "concepts" framed in the cases cited and in other initiatives, whether acknowledged by the report or not. Possibilities include:

- the initiatives citing smaller numbers of concepts have subsumed some concepts from those with larger numbers -- implying an issue associated with the more generic labelling
- the initiatives citing smaller numbers of concepts are ignoring some concepts from those with larger numbers -- implying questions as to whether:
  - some concepts are considered irrelevant or are in some way of lesser priority and urgency
  - some concepts are simply not recognized from the perspective of those presenting the report, reflecting a different discipline or political ideology
- there is a significant mismatch between the concepts cited in one initiative and those cited in another -- implying questions regarding
  - a fundamental difference in methodology, whether acknowledged or not
  - a fundamental difference in mandate, whether acknowledged or not
- other explanations

With respect to the latter especially useful is the recognition accorded to the distinctions made by [Donald Rumsfeld](#) regarding: [known knowns](#), [known unknowns](#), [unknown knowns](#), and [unknown unknowns](#). So framed, it is then appropriate to ask which concepts in any such report are a reflection of known knowns, unknown knowns, unknown knowns, or unknown unknowns. From that perspective the tardy recognition of COVID-19 clarifies a further question of who is ignorant about what -- when it comes to risks and threats, let alone to the credibility of challenges and goals?

## Initiatives articulating global threats, risks, challenges and goals?

In its Appendix 3, the report lists activities and reports on global risks by a "*growing network of august institutions and individuals round the Planet, and their invaluable contribution to our own deliberations*".

The confusion highlighted above with respect to the number of "concepts" identified by such sources (however labelled) suggests that there is a methodological need to compare the insights framed, subsumed or ignored by each source. It would seem to be especially important to understand why this is the case in a context calling for a "global plan" and "global action", presumably requiring a degree of

global consensus. The report does not attempt to do so, reflecting a characteristic tendency in other such initiatives. Typically each is associated with an appeal to support their particular articulation -- in quest of such global consensus (as is the case with the report's Appendix 5).

A thorough review of the new report might usefully have listed the bodies in Appendix 3 -- but together with other bodies who might also perceive themselves to be of relevance as "*august institutions and individuals round the Planet*". Against such a listing (possibly as columns in a table) might then be listed 10-20 (or more) "concepts" -- whether understood as threats, risks, problems, challenges or goals. The resulting pattern of recognized relevance (or irrelevance) would then be especially instructive with respect to any challenge of achieving global consensus -- especially if it reflected the perspective of all the initiatives listed.

It is of course the case that a number of online encyclopedic projects necessarily have entries on the "concepts" highlighted in the new report. Examples include *Wikipedia*, the *Encyclopedia Britannica*, or -- more specifically -- the *Encyclopedia of World Problems and Human Potential*.

It is also unfortunately the case that any listing of those deemed "august" is highly controversial with many listed deemed irrelevant (if not dangerous) by others -- and many others considering their own perspective to be highly relevant. This dynamic is evident in the conflictual relationship between many think tanks, a primary source of reports of that kind (*Tank Warfare Challenges for Global Governance*, 2019).

The Commission contrasts its use of "august" with its call for "diverse voices":

To overcome the ten global risks, it is imperative to share solutions which are inclusive of voices outside of science, business, government and the traditional centres of power. This means especially including the voices of women, of youth, of First People the world over, of minorities, the poor and physically isolated. We need to recognise, hear and share, their views, values and solutions. We need to know there are other ways to solve these threats than through political, military or economic conquest.... We need to engage far larger numbers of young people in imagining and planning our common future. We particularly need to hear the voices of women at the broader system level. (p. 16)

Arguably the unqualified use of "august" is central to the challenge of the times -- given its historical association with the first Emperor of the Roman Empire. The unfortunate difficulty for the "august", readily conflated with "elite" and "excellence", is their significant failure in delivering more than their obvious disagreement with each other in claiming relevance to global governance. As elites, they are widely noted as having engendered the recent rise of populism through a failure to communicate successfully or meaningfully with those lacking the quality with which the elites identify.

The challenge faced by the "august" can be speculatively articulated in terms of delivering on a dream, as variously cultivated (*Dreamables, Deniables, Deliverables and Duende*, 2015). Given the many celebrations of fruitfulness associated with August, it could also be provocatively asserted that those associated with that quality could be said to be living in a form of "dreamtime" in their failure to recognize an existential reality for many.

## How many global threats, risks, challenges and goals merit recognition?

In a context of multiple crises, the distinguishing feature of the new report is the prioritising it offers in reducing the number to 10 "risks" or "threats" on which it is recommended that global governance should focus. The difficulty this articulation poses by implication is any disagreement with other priorities in a context of more comprehensive scope. Presumably in reducing the 17 [Sustainable Development Goals](#) to 10 "risks" reframes some goals to be of lesser relevance than those perceived by the United Nations -- itself in quest of global consensus.

There is considerable mystery to the number of "concepts" considered to be of priority concern. This is evident in the UN's switch from the 8 [Millennium Development Goals](#) to the 17 Sustainable Development Goals. There is no indication why either number was preferred in the first place. With respect to the new report, as noted above: why indeed 10?

The following ten are identified:

- Decline of key natural resources and an emerging global resource crisis
- Collapse of ecosystems that support life, and the mass extinction of species
- Human population growth and demand, beyond the Earth's carrying capacity
- Global warming, sea level rise and changes in the Earth's climate affecting all human activity
- Universal pollution by chemicals of the Earth system and all life
- Rising food insecurity and failing nutritional quality
- Nuclear arms and other weapons of mass destruction
- Pandemics of new and untreatable diseases
- Advent of powerful, uncontrollable new technologies
- National and global failure to understand and act preventively on these risks

The underlying question was first highlighted in an early study (*Patterns of N-foldness: comparison of integrated multi-set concept schemes as forms of presentation*, 1980). One indication is itself unsatisfactory in explaining the preference for sets of concepts numbering more than 9 (George Miller, *The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information*, *Psychological Review*, 1956). The lack of concern with other indications merely suggests that the matter is arbitrary and considered of little consequence to achieving global consensus (*Comprehension of Numbers Challenging Global Civilization*, 2014). Are

such lists merely "to do lists" reflective of current political priorities and public image management?

The following indications can be understood as suggesting the need for a more comprehensive exploration regarding the **systemic implications of such sets, notably in terms of comprehensibility, communicability and symbolic appeal.**

**Threshold of viability and comprehensibility?** Naively it could be asked whether a viable global plan could be framed as:

- **singular?** Perhaps then to be recognized as the "One Plan", but with little effort at its articulation. There are echoes of this in current efforts to promote a Global Marshall Plan, as discussed separately (*Global strategic plan for coronavirus pandemic?* 2019). It recalls the slogan notoriously framed by Margaret Thatcher: *There Is No Alternative*. Such singular framing could be explored as "God's Plan", despite its problematic implications (*Adhering to God's Plan in a Global Society*, 2014). Equally singular in strategic terms is the **Great Commission** of Christianity, which bears comparison with the **Aleinu** as the fundamental expression of duty in Judaism and with the commitment of Islam to extending *sharia* through *jihad*. Rather than the framing offered by the Ten Commandments, discussed below, these could be understood as superceded by a "new commandment", as has been implied (*John 13:34*). It could be recognized in terms of a particularly focused strategy (*Eradication as the Strategic Final Solution of the 21st Century?* 2014).
- **dual?** This framing could be recognized in the complementarity between a singular overt strategy and a covert undeclared strategy -- a reality which is readily acknowledged in practice. This is evident in anecdotal distinctions between what is "on the table" and what is "under the table", or between the "right hand" and the "left hand" -- potentially associated with "back channel" communications with opponents pursuing an alternative strategy. Some would clearly choose to recognize the pattern in the manner in which God's strategy is opposed by Satan's, as speculatively explored (*Strategic Briefing for the Messiah -- based on professional insights from preemptive news and image management*, 1999). Of some relevance in a democratic society is the use of "Red Team" and "Blue Team" strategic articulation.
- **triple?** Viability may be sought through a "three-pronged strategy" (*Three-pronged Strategy for Openness*, P2P Foundation). An aspect of this is evident in efforts to articulate a **Third Way** as an attempts to reconcile right-wing and left-wing politics. The complexity becomes evident through the challenge to understanding the mysteries of the Trinity or any three-body problem. Understood as strategic "pillars", the European Union has, for example, developed *Three Pillars of the European Union* (to which "additional pillars" have been subsequently added, or emphasized, as with *Boosting EU competitiveness -- 3 pillars for sustainable growth*, 16 September 2019).
- **four-fold?** Whilst there are many four-fold conceptual articulations, less evident is the viability of a "four-point" plan or the role of a **Fourth Way**. Various strategic framings have been offered in terms of "four pillars" (**Four Pillars Policy** of the Australian government; *The Four Pillars of a Successful Business*, *Forbes*, 5 July 2019): A four-fold challenge has long been made in terms of the **Four Horsemen of the Apocalypse** -- with little suggestion as to the articulation of the strategic response. The challenge is perhaps usefully emphasized by the advice of General Montgomery to the effect that: *Make no more than three points to your soldiers. If you make any more you will not only confuse them but you will confuse yourself.*

**Intermediary articulations:** Potentially more intriguing is the strategic articulation in terms of the following sets:

- **five-fold?** Especially noteworthy are the *Five Pillars of Christianity*; the *Five Pillars of Islam*, and the *Five Pillars of Orthodox Judaism*. Chinese culture attaches great significance to the *Wuxing* pattern of five ways or five processes, and particularly to their interrelationship. With respect to systemic viability, especially noteworthy from a cybernetic into the organization of a **viable system** are the five interacting subsystems which may be mapped onto aspects of organizational structure. Systems 1–3 are concerned with the 'here and now' of the organization's operations, System 4 is concerned with the 'there and then' ; System 5 is concerned with balancing the 'here and now' and the 'there and then' to give policy directives which maintain the organization as a viable entity.
- **six-fold?** The pillar metaphor used by the EU has been used by Sohail Inayatullah (*Six pillars: futures thinking for transforming, Foresight*, 2008). It is also a feature of other articulations (Nathaniel Branden, *The Six Pillars of Self-Esteem*, 1995; David Flint, *The Six Pillars of Australia*, 2016; *Six Pillars of customer experience*, KPMG). There are other six-fold framings (Austen Ivereigh, *Pope Francis's six-fold response to jihadist terror*, *MercatorNet*, 9 August 2016; Kofi Annan, *Six-Point Plan for Syria*, Kofi Annan Foundation; Javed Akbar, *Six-Point Plan of Action for Pakistan*, Wilson Center; UNICEF, *Six-Point Plan of Action for Refugee Children*, 1 June 2017). Of particular interest are the multiple articulations by Edward de Bono (*Six Frames For Thinking About Information*, 2008; *Six Thinking Hats*, 1985).
- **seven-fold?** Perhaps fundamental to the use of the pillar metaphor by the Abrahamic religions, and highlighting its implied subtlety, is its use in the *Old Testament* (*Proverbs 9:1*): *Wisdom hath builded her house, she hath hewn out her seven pillars*, as helpfully discussed by Richard C. Nickels (*The Seven Pillars of Wisdom*). Seven-fold strategic frameworks. Ali Mazrui offers a seven-fold strategy for overcoming cultural dependency in Africa (*The African Condition*, pp. 80-86). India adopted such a seven-fold strategy to place the economy on a high growth path to reduce poverty. Muslims are however seen as having adopted a Seven-fold Strategy to position themselves within India (*Islamism, Veda*). Job assessment has been so framed (Alec Rodger, *The Seven Point Plan*, National Institute of Industrial Psychology, 1968) as has the process of rewilding (Randy Hayes, *The New Green Deal: A Seven-Point Plan For A Deep Planetary Emergency*, The Rewilding Institute). Controversy has been aroused by the promotion of the **Seven Mountain Mandate** by Pentecostals in the light of **dominion theology**.
- **eight-fold?** Most notable is the **Noble Eightfold Path** of Buddhism, which can be considered as having "inspired" the **Eightfold**

Path of policy analysis and the [Eightfold Way](#) of particle-physics theory. A potentially related pattern is to be found in Christianity (*The Eight Beatitudes* in the Sermon on the Mount; Brian Edgar, *Eight Core Christian Values, Evangelical Alliance: faith and politics; The 8 Points of Progressive Christianity, Progressive Christianity*, 2020). A response to abuses by Catholic clergy has been framed in this way (*Pope launches eight point strategy to end abuses, Rome Reports*, 24 February 2019). The *Eight-point Regulation of the Centre* is a set of regulations stipulated by Xi Jinping, the General Secretary of the Communist Party. The Australian Academy of the Humanities has adopted an *8-Point Plan to Humanise the Future*. As noted above, an abandoned effort was made by the UN to articulate global strategy in terms of the 8 Millennium Development Goals.

- **nine-fold?** The Indian Institute of Corporate Affairs has adopted a *Ninefold Strategy for the Reinvention of IICA* in "facing complex strategies through sustainable solutions". Other use is made of that frame (Heidi Grant Halvorson, *Nine Things Successful People Do Differently, Samurai Leader*, 2011; Peter T Coleman, *A 9-Point Strategy For Progressive Resistance, Resolution And Reconciliation In Trump's America, HuffPost*, 21 November 2016; Peter Young, *A Nine-Point Strategy for Dealing with Castro, The Heritage Foundation*, 21 November 1985; John Burton, *Operation Babel: A Nine Point Strategy to Address Homosexuality in our Culture*, 5 September 2014). A systematic approach with strategic implications is evident in the use of the [enneagram](#) (Michael Goldberg, *The 9 Ways of Working*, 1999)

#### Strategic viability of 10-fold to 13-fold frameworks?

- **10-fold?** A particular focus is given to the 10-fold in what follows, most notably in the light of the traditional framing of the Ten Commandments.
- **11-fold?** Strategic articulations in the light of this framework appear to be rare -- a factor suggestive of systemic implications meriting the further exploration recommended.
- **12-fold?** This pattern has been the focus of a fairly exhaustive separate investigation (*Checklist of 12-fold Principles, Plans, Symbols and Concepts: web resources*, 2011). This served as an annex to a commentary of some relevance (*Eliciting a 12-fold Pattern of Generic Operational Insights: Recognition of memory constraints on collective strategic comprehension*, 2011)
- **13-fold?** As with the 11-fold articulations, this framework is seemingly rarely used -- presumably for similar reasons

With respect to consideration of the articulation from one-fold to twelve-fold, a valuable comprehensive study is offered in a multi-volume study of [systematics](#) by [John G. Bennett](#) (*The Dramatic Universe*, 1956). Also of relevance is a summary emphasizing the relationships between the elements of a given set (*Dynamic bonding patterns in n-tuple helices engendering n-fold rotating symbols*, 2019).

#### Strategic viability of 14-fold to 20-fold frameworks?

- **14-fold?** The *Fourteen Points* was a statement of principles for peace by President Woodrow Wilson -- a widely commented set of strategies that was to be used for peace negotiations in order to end World War I (*Fourteen Points, History*). 14 [Grand Challenges for Engineering in the 21st Century](#), have been outlined by the US National Academy of Engineering (2020).
- **15-fold?** 15 [Global Challenges](#) of the [Millennium Project](#), which regularly publishes a report on the *State of the Future*.
- **16-fold?** The articulation of the [Earth Charter](#) is presented as a 16-point framework. 16 Global challenges have been identified for the Government of Canada on the basis of an extensive literature survey (Policy Horizons Canada, *The Next Generation of Emerging Global Challenges, Horizons*, 19 October 2018). It can be argued that the UN's 17 [Sustainable Development Goals](#) (superceding its 8 Millennium Development Goals) is usefully understood in systemic terms as 16 (+1), since the 17th goal is recognized as the articulation of the previous 16.
- **17-fold?** The major global articulation at this time follows this pattern, namely the 17 Sustainable Development Goals (as mentioned above). Use of this pattern is rare, evoking suspicions similar to those above with respect to 11-fold and 13-fold patterns. There is a strange possibility that the coherence of a 17-fold pattern might be related, if only unconsciously, to the so-called [wallpaper group](#) (or plane symmetry group). This is a mathematical classification of a two-dimensional repetitive pattern, based on the symmetries in the pattern; such patterns occur frequently in architecture and decorative art, especially in textiles and tiles as well as wallpaper. It has been proven that there are only 17 distinct [groups](#) of possible patterns. Cynically it could however be argued that the 17 SDGs can be understood as "global wallpaper" for decorative purposes.
- **18-fold?** Of particular potential relevance to global strategic articulation is the argument that at least 18 nontrivial correct choices must be made to arrive at a "right understanding" of the world according to quantum theory (Henry P. Stapp, *The 18-Fold Way, Foundations of Physics*, 32, 2002). Stapp explicitly seeks to address the manner in which thoughts influence the activities of quantum mechanically described brains. Unprecedented "[18-fold interpenetration and concomitant polymorphism](#)" is a feature of studies of network patterns in crystal structure. The pattern is a feature of quasicrystals (Zhi-Yi Tang and Tian-You Fan, *The stability of the 18-fold symmetry soft-matter quasicrystals, arXiv*, 19 September 2019).
- **19-fold?** Use of this pattern is rare, evoking suspicions similar to those above with respect to 11-fold, 13-fold and 17-fold patterns. A pattern of [19-fold symmetry is of interest in quasicrystal studies](#). It is appropriate to note that the highly strategic [game of go](#) is played on a 19x19 board

- **20-fold?** As with the 12-fold pattern, this articulation has been the focus of a fairly exhaustive separate investigation (*Requisite 20-fold Articulation of Operative Insights? Checklist of web resources on 20 strategies, rules, methods and insights*, 2018). The commentary raised the question of whether the choice of 20 is simply a convenient doubling of the many uses of 10 -- most notably the *10 Commandments*, as perhaps the ultimate articulation of human operacy? This is suggested by debate regarding *20 Commandments* (Troy Lacey, *Are There 20 Commandments? Answers in Genesis*, 2 March 2015; *The Other Ten Commandments*, *h2g2*, 18 March 2008; Wallace Wenn, *The Other Ten Commandments*). The earlier checklist followed from a speculative possibility (*Memetic Analogue to the 20 Amino Acids as vital to Psychosocial Life?* 2015). Another approach took the form of an experiment in detecting the challenges to comprehension in formulating declarations of from 1 to 20 elements, with different degrees of uncertainty -- and the consequent potential for encompassing the diversity of perspectives (*Distinguishing Levels of Declarations of Principles*, 1980).

Missing from most strategic articulations is why a particular number of elements is considered appropriate as a limiting condition or in terms of some design sense of "goodness of fit". Sensitivity to this is perhaps most apparent in the mathematical study of symmetry groups -- typically considered irrelevant to the articulation of a strategic framework -- both by mathematicians and by policy-makers.

The remarkable use of "pillars" in framing fundamental strategic principles bears comparison with the prehistorical use of configurations of pillars for symbolic purposes -- as with the 30 pillars of *Stonehenge*. Curiously, in comparison with modern checklists of pillars, those of Stonehenge were originally configured in a circle with lintel stones linking adjoining pillars -- a relationship seldom evident in current sets of strategic pillars. There is considerable irony to the identification from the perspective of management cybernetics of the viability a 30-fold icosahedral pattern of perspectives (*Stafford Beer, Beyond Dispute: the invention of team synergy*, 1994).

## Habitual use of a 10-fold strategic framework?

The new report of the Commission for the Human Future focuses on a 10-point articulation. There is seemingly no explanation as to why this number is appropriate -- rather than 9, 11 or more. Why is it assumed that "ten works" in contrast with the preference by other globally-oriented initiatives for 14, 15, 16 and 17 -- if not 20?

The following examples help to frame the question as to whether they imply in any way -- in a manner yet to be fully appreciated -- a 10-fold set of integrative functions (generically understood) vital to the integrity of their preoccupation. Or is it indeed the case that most, if not all, are simply checklists with little integrative function beyond that of a form of "conceptual stockade" -- a defensive device cognitively equivalent to "circling the wagons".

### 10-fold sets of principles and strategies (selection):

- *The Ten Principles of the UN Global Compact*
- *Ten Principles of Economics* (Gregory Mankiw, Principles of Economics, 1998)
- *The 10 Principles of Burning Man (Burning Man); The Ten Principles (Burning Seed)*
- *Fighting Tax Crime: The Ten Global Principles* (OECD, 8 November 2017)
- *Ten core principles (Extinction Rebellion)*
- *10 Not-for-Profit Governance Principles* (Australian Institute of Company Directors)
- *10 Principles of Fair Trade from WFTO (The Fair Trader, 2 November 2018)*
- *Systems Thinking for Safety: Ten Principles -- A White Paper* (European Organisation for the Safety of Air Navigation, 2014)
- *Ten principles to enable a successful transformation* (PWC China)
- *10 Principles for Policy Makers* (Australian Government)
- *Ten principles for good administration* (Commonwealth of Australia Ombudsman)
- *The Ten Principles for global Transparency* (Environmental Justice Foundation, 23 November 2018)
- *The Ten Principles of The Eden Alternative* (The Eden Alternative)
- *Transformational Change: A Ten-Point Strategy to Achieve Better Health Care for All* (The Commonwealth Fund, 2004)
- Darren Brady Nelson: *Ten Principles of Regulation and Reform* (LibertyFest Monographs, No. 2, 2018)
- Jan vom Brocke, et al: *Ten principles of good business process management* (*Business Process Management Journal*, 20, 2014, 4)
- Roger Cremades, et al: *Ten principles to integrate the water-energy-land nexus with climate services for co-producing local and regional integrated assessments* (*Science of The Total Environment*, 693, 25 November 2019)
- Matt Watkinson: *The Ten Principles Behind Great Customer Experiences* (Methodical)
- DeAnne Aguirre and Micah Alpern: *10 Principles of Leading Change Management* (*Strategy-Business*, 6 June 2014)
- Dieter Rams: *10 Timeless Commandments for Good Design* (Interaction Design Foundation, March 2020)
- Gordon D. Schiff, et al: *Ten Principles for More Conservative, Care-Full Diagnosis* (*Annals of Internal Medicine*, 6 November 2018)
- Lucy Danielle Robinson, et al: *Ten principles of citizen science: Innovation in Open Science, Society and Policy* (October 2018)
- Susan A Nancarrow, et al: *Ten principles of good interdisciplinary team work* (*Human Resources for Health*, 11, 2013, 19)
- Michael D. Watkins: *Making Virtual Teams Work: Ten Basic Principles* (*Harvard Business Review*, 27 June 2013)
- Maeve Barry, et al: *Ten principles for climate, environment and respiratory health* (*European Respiratory Journal*, 50, 2017, 6)
- James Robertson: *10 principles of effective information management* (1 November 2005)
- Zoe McKay: *The Ten Principles For Doing Business In China* (*Forbes*, 6 March 2012)
- Kim Jong Il: *Ten Principles for the Establishment of the One-Ideology System*

**Ten Commandments?** It might be provocatively asked whether the preference for 10 is influenced consciously or unconsciously by factors similar to those which render the 10 Commandments to be both memorable and functionally credible in systemic terms. However

it is less than clear what it is that "works" in terms of that articulation -- other than the simplistic correspondence to the number of fingers on two hands. Or is it more simply a matter of imitation of a pattern that others have found credible and authoritative -- and therefore less liable to evoke criticism?

Also known as the Decalogue, the Ten Commandments, are a set of biblical principles relating to ethics and worship, which play a fundamental role in the Abrahamic religions (Imam Mufti, *The Ten Commandments in the Quran, The Religion of Islam*, 2012). The Ten Commandments appear twice in the Hebrew Bible, namely in the books of Exodus and Deuteronomy. As noted by Austin Cline:

Islam does not accept the absolute authority of the Bible, teaching that it has become corrupted over the years, and therefore it does not accept the authority of the listing of the Ten Commandments that appears in the Bible. Islam does, however, accept the status of both Moses and Jesus as prophets, which means that the commandments are not completely ignored, either. (*Muslim View of the Ten Commandments, Learn Religions*, 15 May 2019)

For Patrick Dewilde:

When a religious authority states "these are the ten commandments God has ordained", then that seems to stop any potential discussion on ethics at that point. God has ordained the ethics and no mortal can dispute it. But, as we all know, even religious discussions do not stop with the formulation of commandments. They just move to another level, namely their interpretation. No wonder much religious literature is filled with interpretative considerations, rule setting by authority etc. Some especially dogmatic religions, such as Catholicism, even claim a monopoly of interpretation as though God is immanent in their leadership, which then has received from Him the sole authority to translate His commandments to daily practice. Such a claim actually degrades the commandments to just a delegation or even usurpation of authority. (*Systemic Relativism: a philosophical exploration of chaos and creation, evolution and intelligence*, Institute for Advanced Study, 2018)

A related observation is that of the [Opinion Sur](#) group of Latin America:

The meaning of the word commandment refers to a "precept or order given from a superior to an inferior" and it is in this sense that it would be worthwhile to consider a list of precepts and orders that emerge from the interests, needs and emotions of the people so as to guide the action of those who lead global as well as national political and economic institutions. We should not be surprised by the appearance of new systemic crises in this XXI century; the current one had its epicentre first in the United States and now in Europe. It is a fact that, with a course of action and a way of functioning that lead almost inevitably to environmental destruction, an increasing concentration of assets and income, the primacy of financial activities over the real economy and shameful social inequity, situations of instability and insecurity within the countries and on a global level are reproduced with more and more virulence. (*Ten Commandments to Avoid Systemic Crises (Opinion Sur* 8 June, 2010)

Of some relevance to any such association is the effort by religious groups to adapt current preoccupations with the environment to a framework based on the Decalogue or its equivalents.

- Daniel Burke: *The Pope's 10 commandments on climate change* (CNN, 19 June 2015)
- Pope Benedict XVI: *Ten Commandments for the Environment*
- Joshtrom Kureethadam: *The Ten Green Commandments of Laudato Si'*
- Lawrence Troster: *10 Teachings on Judaism and the Environment* (HuffPost, 6 June 2011)
- Gianluca Cueatas: *Here are the new 10 Commandments of environmentalism -- so you can follow Pope Francis' call* (New York Daily News, 18 June 2015)
- Peter Sogaard Jørgensen: *Ten Eco-Commandments -- human-biosphere evolutions* (29 April 2014)
- Larry Schnapf: *The Ten Commandments of Environmental Law* (23 February 2017)
- David Lindenmayer, et al: *Ten Commitments: Reshaping the Lucky Country's Environment* (2008)

In the case of the new report by the Commission for the Human Future there is however a further delicate question, given the manner in which it emerges from an Australian context characterized by political authorities at the highest level with very strong associations to Christian fundamentalism and its Seven Mountain Mandate (*Australia's Pentecostal Extreme World Makeover Exposed*, 13 February 2020; Pentecostalism: the decline, infiltration and fall of Australian Democracy, *Australian Independent Media*, 1 February 2020).

To what degree have these factors helped to frame the Australian government's *10 Principles for Policy Makers* and *Ten principles for good administration* -- and the framing of the Commission's own report? Given the Commission's focus, how was this related to the *8-Point Plan to Humanise the Future*, as adopted by the Australian Academy of the Humanities?

How then to interpret the new report's assertion that;

One thing the ten existential threats have in common is that their solution requires the imposition of measures and some costs **now** in order to secure a **future** benefit. Contemporary politics is bedevilled by the fact that politicians are for the most part unwilling to impose any costs. Those who attempt to campaign for good policy become a target for scare campaigns by their opponents. (p. 12, emphasis in original)

**Miscellaneous 10-fold checklists of "commandments" of secondary relevance:**

- The presentation of *The Ten Commandments for the modern age* (*New Statesman*, January 2016) is presumably offered from a secular perspective
- Azhar Iqbal and John Silvia: *The Ten Commandments of Economic Forecasting* (*Foresight: The International Journal of Applied Forecasting*, 53, 2019)
- Norbert Berthold: *Ten Commandments to overcome the Eurozone's many crises* (*Wirtschaftliche Freiheit*, 19 April 2018)
  - Going forward, the euro should continue to be "money without government"
  - The ECB should remain politically independent
  - Monetary government financing should continue to be prohibited
  - National governments should have the say in matters of economic policy
  - The architecture of social security should remain nationally organized
  - Hands off the four fundamental freedoms in the EU!
  - Fiscal free riding should be prevented
  - Banks and governments should be separated by a firewall
  - The EMU should not implement a permanent EMF
  - National parliaments should have the last word
- John C. Hulsman: *The Ten Commandments of Political Risk* (24 April 2018)
  - "We are the risk"
  - Gaming out "lunatics"
  - Gaming out "chess players"
  - Recognising game changers
  - Balance is the key to foreign policy
  - If you are digging yourself an intellectual hole in foreign policy analysis -- stop
  - Know your country's place in the world
  - Do not put all your eggs in one strategic basket
  - Know the nature of the world you are living in
  - Prepare for the "butterfly effect"
- Ladislau Dowbor *The Ten Commandments: update for elites* (2019)
  - Thou shalt not buy governments: rescue the public dimension of the state:
  - Thou shalt not present wrong numbers: redesign our national accounting systems
  - Thou shalt not push thy fellowman into poverty: basic income
  - Thou shalt not deprive thy fellowman of the right to earn his living: guarantee the right to make a living
  - Thou shalt not overwork thyself or thy fellowman: reduction of working hours
  - Thou shalt not live for money: promoting style of life change
  - Thou shalt not earn money with others' money: rationalize the financial intermediation systems
  - Thou shalt not tax good actions to fund bad debts: rationalize the tax system
  - Thou shalt not deprive thy fellowman of knowledge: access to knowledge and sustainable technologies
  - Thou shalt not deprive thy fellowman of his word: democratize communication
- Daniel Levy: *Ten Commandments for Mideast Peace* (*The American Prospect*, 20 May 2007)
  - It's the endgame, stupid.
  - Get the content right.
  - Set your objectives and strategy up front -- and stick to them.
  - Don't fly solo.
  - Don't get spooked by domestic Israeli politics
  - Leave Palestinian politics to the Palestinians.
  - Don't view the domestic Jewish community through a monolithic prism.
  - Dial Damascus
  - Pay strategic attention to events on the ground
  - Make this peace a presidential priority
- Daniel DeCaro: *Sustainability Roundtable: Ten Commandments of Urban Regeneration* (University of Louisville, 2016)
- Jamie Lawrence: *Ten commandments for successful succession planning* (*HRZone*, 23 April 2013)
- *What was the Mafia Ten Commandments?* as discovered in the possession of Salvatore Lo Piccolo in 2007:
  - No one can present himself directly to another of our friends. There must be a third person to do it.
  - Never look at the wives of friends.
  - Never be seen with cops.
  - Don't go to pubs and clubs.
  - Always being available for Cosa Nostra is a duty – even if your wife's about to give birth.
  - Appointments must absolutely be respected.

- Wives must be treated with respect.
- When asked for any information, the answer must be the truth.
- Money cannot be appropriated if it belongs to others or to other families.
- People who can't be part of Cosa Nostra: anyone who has a close relative in the police, anyone with a two-timing relative in the family, anyone who behaves badly and doesn't hold to moral values.

### Inferred 10-fold commandments of presidents of the USA

- Brooke Allen and Patrick Doyle: *Bush and the Ten Commandments* *The Nation*, 26 June 2006), arguing that no President in living memory has been as overtly religious as George W. Bush, but ask how well have the President and his henchmen kept the commandments?
- Yoram Ettinger: *President Bush's Ten Commandments* (*The Ettinger Report*, 9 May 2003), arguing that the President has effectively presented his own Ten Commandments, in the combat against terrorist regimes, during his wars on Afghanistan and Iraq, which have been driven by values and strategic interests:
  - Thou shall sustain moral clarity, avoiding moral equivalence between terrorists and their victims, thus de-legitimizing the very existence of terrorist regimes.
  - Thou shall not pursue coexistence with terrorist regimes, since they have been murderous and systematic violators of agreements.
  - Thou shall not combat terrorism through containment, defense, deterrence and retaliation, but rather through preventive offensive on the enemy's own ground. Unlike the ussr, most terrorist regimes are not deterable or containable.
  - Thou shall not aspire for ceasefire. Rather, one should attempt to tarnish the infrastructure, which feeds the fire of terrorism.
  - Thou shall not wait for a "smoking gun." Thou shall attempt to prevent the access of terrorist regimes to their "guns."
  - Thou shall not sacrifice vital interests on the alter of a political process. The process is not the strategic goal; it is merely a tactical means.
  - There is a military solution to terrorism, as evidenced by the lessons of afghanistan (2002) and iraq (2003), as well as by the war launched by turkey, germany, italy, peru and egypt on armenian and kurdish terrorism, baader meinhoff, red brigade, the shining path and islamic terrorism.
  - The prime responsibility of a leader is to the personal and national security of his people, rather than to the prestige of the un or members of the international community.
  - War on terrorist regimes solve, rather than creates, problems, minimizing/deterring future problems.
  - "Either you are with us, or you are with the terrorists... anyone who continues to harbor or support terrorism will be regarded as a hostile regime... we are not deceived by pretense to piety. We have seen their kind before..." (President George W. Bush, sept. 20, 2001, joint session of congress).
- Justin S. Vaughn: *Richard Nixon's Ten Commandments of Statecraft: An Historical Analysis of the Nixon Administration's Foreign Policy and its Compatibility with Contending International Relations Paradigms and Conflict Mediation Theory* (Illinois State University, 2001)
  - Always be prepared to negotiate, but never negotiate without being prepared.
  - Never be belligerent, but always be firm.
  - Always remember that covenants should be openly agreed to but privately negotiated.
  - Never seek publicity that would destroy the ability to get results.
  - Never give up unilaterally what could be used as a bargaining chip; make your adversaries give something for everything they get.
  - Never let your adversary underestimate what you would do in response to a challenge.
  - Never tell him what you would not do.
  - Always leave your adversary a face-saving line of retreat.
  - Always carefully distinguish between friends who provide some human rights and enemies who deny all human rights.
  - always do at least as much for our friends as our adversaries do for our enemies never lose faith. in just cause faith can move mountains. faith without strength is futile, but strength without faith is sterile.

### Systemic perspective potentially implied by "Ten Commandments"?

Commentary on the various sets of commandments, principles, and strategic frameworks noted above reflects little concern with the absence of any articulation of relationships between them. They are far better recognized as simple lists with no implication of constituting a system or any higher order of organization. In the case of commandments, an assumption may be made that these derive from a higher order of insight, as implied by frequent reference to "God's Plan". However the relationship to that higher pattern of integration, whether implied or not, is not presented in those cases as worthy of detailed commentary.

It is therefore of interest to consider several potential exceptions which do reflect a systemic perspective.

- Joël de Rosnay: *The "Ten Commandments" of the Systemic Approach*; (In: *Macroscopic: a new world scientific system*, 1979)
  - To keep variety
  - Not to open the feedback loops (i.e. not destroy the regulators)
  - To seek the amplification points
  - To establish equilibria through decentralization

- To maintain constraints
- To differentiate in order to improve integration
- To evolve, by reaction to aggression
- To prefer objectives instead of detailed programming
- To know how to use energy (contained within information) for management
- To respect reaction delays

He then adds that it is obviously possible to imagine other "commandments", less limited to human systems and, of course less operative, as for example:

- to define as precisely as possible the significant environment of the system
  - to clearly define the main objective of the system and its subsidiary ones to find out the different rhythms of activities of the system and discover their interrelations
  - to determine the degree of maturity of the growing system: just born, or emergent, in steady state, or in the process of sclerosis.
- Nicolas Drouant, et al: *Designing green network architectures using the ten commandments for a mature ecosystem* (*Computer Communications*, 42, 2014), The authors noted that [Janine Benyus](#) (*Biomimicry: Innovation Inspired by Nature*, 1997) indicates that "over billions of years, natural selection has come up with winning strategies adopted by all complex, mature ecosystems". These strategies are defined there as the ten commandments for organisms in mature ecosystems. For Drouant and colleagues, the idea is to apply these commandments (or lessons) to economic organization, substituting our current economy by an industrial ecology. Benyus provides examples of the ways the commandments are currently applied in companies or in an economy. The approach developed proposes relations between the ten commandments and professional activities in the network domain.
    - use waste as a resource,
    - diversify and cooperate to fully use the habitat, .
    - gather and use energy efficiently,
    - optimize rather than maximize,
    - use materials sparingly,
    - don't foul their nests,
    - don't draw down resources,
    - remain in balance with the biosphere,
    - run on information, and
    - shop locally.
  - Center for Security Studies: *Center for Security Studies Ten counterinsurgency commandments from Afghanistan* (*ETH Zurich*)
    - Do not confuse short-term tactical imperatives and process with longer-term goals
    - Focus on dealing with constraints to economic growth - not humanitarian assistance or the provision of security - as the essential condition for development
    - In identifying areas for development spending, reinforce existing success.
    - Understand the difference between asymmetric means (where one side uses its weakness to military advantage) and asymmetric ends (where both sides do not want the same thing).
    - Accept the way local systems operate: the international community might not like it, but it has to accept local solutions.
    - Policies and the message to the local population have to capitalize on fatigue from war, economic and physical insecurity, and future anxieties.
    - Never confuse numbers with effects. Beware of the body-count trap, the mismatch between aid commitments and expenditure, and especially the difference between numbers of troops and police and those available for operations
    - Understand the basis of local power beyond numbers. This demands understanding the intricacies and allegiances that bind local power structures and those who broker them.
    - Beware of international consultants bearing high-altitude plans that, for all the will in the world, scarcely ever survive the realities of local capacity
    - Integrate but calibrate.... don't try to do everything at once. The footprint of security presence, along with governance and development activity, should match the resources available.
  - Stéphane Nappo and Ludmila Morozova-Buss: *Ten Commandments for a Cyber Resilience Strategy* (*Technative*, 13 March 2019)
    - Align information and cyber security strategy with business digital transformation strategy.
    - Adopt a comprehensive cyber risk management attitude.
    - Identify most critical information and assets.
    - Find and manage vulnerabilities.
    - Reduce cyber risks in projects and production.
    - Optimize strategically chosen systems reliability.
    - Evolve your security to a prevention-based strategic architecture.
    - Pledge to employ the state of the art digital and defence solutions.
    - Instruct regularly your teams to empower and strengthen their resilience.
    - Scale your success by sharing the knowledge and intelligence.
  - The [Opinion Sur](#) group: *Ten Commandments to Avoid Systemic Crises* (*Opinion Sur*, 8 June, 2010)
    - To abate poverty and social inequity, within and among countries.
    - To prevent environmental damage.

- To close the educational and technological gap.
  - To eliminate corruption and growing criminal systems.
  - To adopt peaceful conflict resolution approaches.
  - To overcome contemporary alienation and consumerism.
  - To strengthen democratic governance securing representation and social justice.
  - To celebrate diversity and fight against discrimination and the attempts to homogenize thought.
  - To close the way to selfishness and greed, and encourage generosity and psychic health.
  - To keep a permanent and always renovated search for existential meaning.
- Vaclav Klaus, in an address to the 1993 plenary meeting of the Group of Thirty (Consultative Group on International Economic and Monetary Affairs): *The Ten Commandments of Systemic Reform* (Group of Thirty, 1993). Frequently cited, but not freely accessible.
  - Jiju Antony, et al: *The Ten Commandments of Lean Six Sigma: A Guide for Practitioners* (Emerald Group Publishing, 2019). Lean Six Sigma is a powerful methodology that reduces waste and variation in an organization and ultimately minimizes operating costs, optimizes productivity, and maximizes customer satisfaction.
  - Robert C. Francis, et al: *Ten Commandments for Ecosystem-Based Fisheries Scientists* *ecosystem-Based Fisheries Scientists* (*Fisheries*, 32, 2007, 5)

Despite a systems implication in the above, it is however questionable what the connection is between the "commandments" and how they constitute a viable system or contribute to it -- other than as a system of belief designed to inspire credibility.

## Eliciting a 10-fold systemic framework

This commentary on the report of the Commission for the Human Future can be taken further by exploring ways of presenting any set of risks, principles, or challenges -- other than as a simple checklist lacking any systemic implications. Arguably one of the reasons that global strategies are less viable than envisaged is precisely because they lack a systemic dimension indicating patterns of feedback loops between their primary strategic elements. With respect to the UN's Sustainable Development Goals and its 169 associated tasks, for example, *The Economist* titled its comment as *The 169 commandments: the proposed sustainable development goals would be worse than useless* (26 March 2015), and referred to the result as a "mess".

In this respect the new report is relatively unique in asserting with respect to the ten risks identified:

The group recognised that **all these risks are interconnected** and therefore cannot be solved one at a time. It is a systems issue. All risks must therefore be solved together, as a system, at the same time and in ways that make none of them worse. We assert that, at present, no nation or government on Earth recognises all of these threats as a related complex, nor does any have an explicit policy for human survival. We consider this needs to change, urgently, to focus world attention on what needs to be done. (pp. 4-5, emphasis added)

Unfortunately, as is typically the case with such reports, there is no effort to articulate the interconnection of such risks, to depict them visually (and comprehensibly), or to recognize where such articulation has been systematically documented. The early report to the Club of Rome (*Limits to Growth*, 1972) remains relatively unique in mapping such connectivity. As such it was a primary inspiration for the highly networked *Encyclopedia of World Problems and Human Potential*.

The approach explored here follows from earlier experiments with visual representation of configurations of "pillars" and the like (*Coherent Value Frameworks: Pillar-ization, Polarization and Polyhedral frames of reference*, 2008; *Dynamic Exploration of Value Configurations Polyhedral animation of conventional value frameworks*, 2008). In the case of the UN's Sustainable Development Goals, this made use of *Rubik's Cube* as a pattern especially significant for its global appreciation (*Interplay of Sustainable Development Goals through Rubik Cube Variations*, 2017).

The approach to any 10-fold framework follows from arguments made in critical reviews of reports to the Club of Rome -- whose long-term relevance is not recognized by the Commission for the Human Future. The reports are:

- Jorgen Randers: *2052: A Global Forecast for the Next Forty Years* (2012) as reviewed separately (*Engendering 2052 through Re-imagining the Present*, 2012)
- Ernst von Weizsaecker and Anders Wijkman: (*Come On! Capitalism, Short-termism, Population and the Destruction of the Planet*, 2018) as reviewed separately (*Exhortation to We the Peoples from the Club of Rome*, 2018), notably with respect to the Papal Encyclical *Laudato Si'* in anticipation of the UN Climate Change Conference (*Commentary on the Environment Encyclical*, 2015)

The question to be emphasized, in seeking more systemic insight of global significance, is **how can a 10-fold articulation be mapped to suggest an integrative pattern of feedback loops between its elements** -- if only to evoke exploration and debate on the utility of the mapping and its comprehensibility. This could be understood as potentially highlighting what may have been ignored that is essential to the systemic viability in global terms.

The further point is why there is no impetus to seek such mappings in preference to the oversimplistic nature of lists which are essentially meaningless in systemic terms. Arguably the many situations in which systemic articulations are presented are resistant to non-textual presentation in colour, in 3D, or in dynamic terms. This is typical of powerpoint-like presentations, photocopies, and the

constraints of book and journal publishers.

There is a case to be made for arguing that articulations of ever more complex strategic plans in hierarchically nested linear text form can be seen as vulnerable to a variant of the notorious [Peter Principle](#). As a concept in management articulated by [Laurence J. Peter](#), this indicates that people in a hierarchy tend to rise until they reach a level at which they are no longer competent.

Is there a case for recognizing that **strategic principles tend to be articulated to the point at which they become inoperable**? There is a challenging irony to the possibility that widespread preference for a 10-fold articulation is one step **beyond** the cognitive competence associated with [George Miller's \*Magical Number Seven, Plus or Minus Two\*](#) (1956).

## Experimental animations in 3D of 10-fold configurations of strategic dimensions

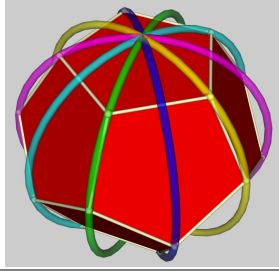
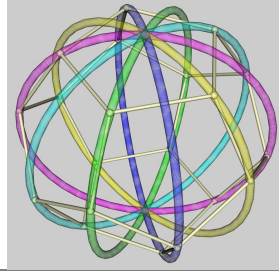
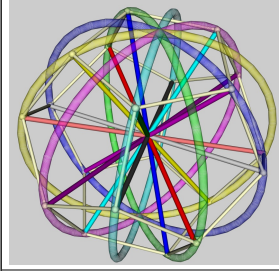
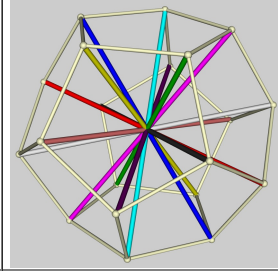
**10-foldness:** In the light of the critical comments above, notably with respect to the checklist of "ten risks" identified by the Commission for the Human Future, there is a case for experimenting with more integratively meaningful representations. This is also consistent with the questionable tendency to present any form of "Ten Commandments", or strategic guidelines, as a checklist. As noted, these follow from earlier experiments (*Coherent Value Frameworks: pillar-ization, polarization and polyhedral frames of reference*, 2008; (*Spike-ended Global Civilization as COVID-19: Humanity "bristles" as the world "burns"*, 2020).

Why is it assumed that strategies or commandments can be adequately articulated in text form, when clearly such articulations have not elicited in the degree of credibility presumably essential to global coherence of anyu form of governance? On the other hand, why is value attached to variously symbolic representations, most obviously in religious iconography? In comparison with the latter, why are representations of major strategic articulations, such as the UN's Sustainable Development Goals, presented (if they are) using simplistic articulations of extremely limited symbolic value?

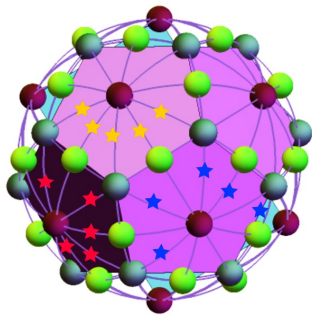
A point of departure is the strong case for greater connectivity between sets of strategies, whether 8-fold, 10-fold, or the 17-fold set of the UN's Sustainable Development Goals, as argued separately (*Time for Provocative Mnemonic Aids to Systemic Connectivity? Possibilities of reconciling the "headless hearts" to the "heartless heads"*, 2018). The latter drew particular attention to the integrative pattern of the dodecahedron with 12 faces and 20 vertices -- and the aesthetic coherence with which it has been associated over millennia. In the quest for a more integrative representation of any 10-fold pattern, use can be made of the 10 axes linking the 20 vertices through the centre of that polyhedron. This offers the interesting opportunity of holding the polarization of any 10-fold pattern in which the 10 dimensions may be understood "positively" or "negatively" in the global dynamics of the real world.

It could for example be emphasized that the challenge to comprehension is not one of "ten commandments" but rather of "being commanded 10-fold", or strategically constrained 10-fold. Framed as "ten threats", it is similarly a case of "being threatened 10-fold" -- as implied by the phrase "crisis of crises".

**5-fold, 10-fold and 12-fold:** Before exploring further the relevance of the dodecahedron to any 10-fold mapping, it is appropriate to note its relevance to the sets of principles underlying both the Abrahamic religions and the Chinese *Wuxing* pattern, as noted above (the *Five Pillars of Christianity*; the *Five Pillars of Islam*, and the *Five Pillars of Orthodox Judaism*).

Dodecahedron with its 5 great circles (and 10 axes through 20 vertexes)			
Faces solid	Faces transparent	With 10 vertex axes	Without great circles
			

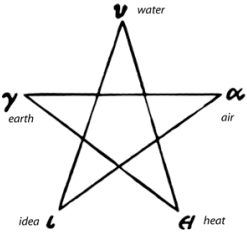
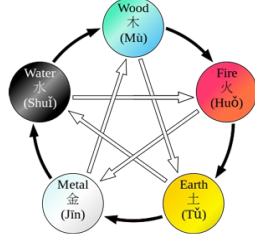
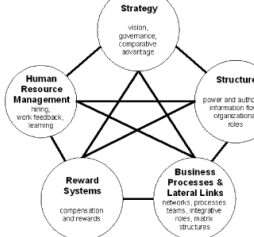

The relation to the 10-fold may be explored otherwise through the complete pattern of great circles of a dodecahedron which can be explored interactively ([Sándor Kabai, \*Fifteen Great Circles on a Sphere\*, Wolfram Demonstrations Project](#), 19 June 2008)

Great circles of dodecahedron	
<p>Various patterns of the 15 great circles on a sphere are associated with features of the dodecahedron. The 3 sets of 5 circles are distinctively marked with small stars of 3 different colours</p> <p>In relation to 10-foldness, for example, 2 sets would apply.</p>	
Adapted screenshot of <i>Wolfram Demonstrations Project</i> (2008)	

**12-fold configuration of 5-fold dynamics:** Of particular interest is the classical use of a 5-fold "container" in 2D, namely the *Hygeia* (the original pythagorean association with hygiene and health) and the Chinese *Wu Xing* processes, as discussed separately with respect to current use of such configurations (*Memorable Dynamics of Living and Dying: Hygeia and Wu Xing*, 2014; *Cycles of Enstoring Forming Mnemonic Pentagrams: Hygeia and Wu Xing*, 2012). The latter notably includes more detailed discussion of:

Fivefold clustering of ways of being stoned  
Towards a cognitive variant of the viable systems model

Comprehending cognitive metabolism  
Cycles of enstoring forming mnemonic pentagrams: Hygeia and Wu Xing

5-fold patterns -- traditional and contemporary			
Hugeia Pentagram of Pythagoreans	Chinese 5-phase Wu Xing cycle <b>Interaction arrows:</b> black=generating; white=overcoming	Star Model™ of Jay Galbraith ( <i>Designing Organizations</i> , 1995)	Five Elements model of Tom Graves ( <i>Needles of Stone</i> , 1986)
			
Reproduced from <a href="#">Hygeia</a> entry in <i>Wikipedia</i> with labels added	Adapted from <a href="#">Wu Xing</a> entry in <i>Wikipedia</i>	Reproduced from <i>Wikipedia</i> entry on <a href="#">organizational architecture</a>	Reproduced from Tom Graves ( <i>The Perils of Prior-Art (Five Elements)</i> , 16 June 2011)

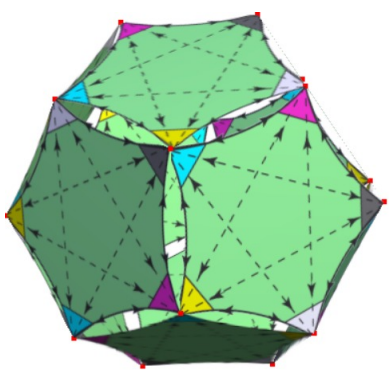
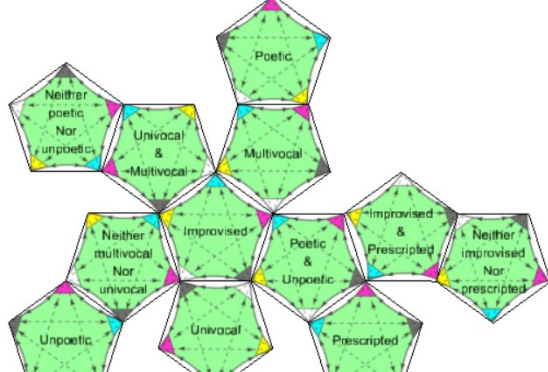
With respect to the Commission for the Human Future, the new report recognizes 5 root causes of the 10 risks it identifies:

- a massive increase in population leading to vast overconsumption of resources;
- an economic system that incentivises GDP growth and ignores its negative impacts;
- the mismanagement of scarce resources;
- the passing of waste and damage to other countries or generations; domestic politics that is unable to plan for future generations;
- a global political system that fosters competition in the military and economic domains and societies that foster large populations leading to rising levels of waste, disease and diminished resilience.

Such a pattern of processes can be distinctively mapped onto the 12-faced dodecahedron, as used in [exploring the relationship between poetic, multivocal and improvisation](#), as discussed separately with respect to *Transformation pathways in multivocal discourse* (2016).

Each face of the dodecahedron offers an indication of 10 unidirectional processes (as indicated in the *Wu Xing* diagram above), or 20 reversible (bidirectional) processes. The challenge is to configure the 3 colours at the vertices shared between contiguous pentagram faces such that the colour combinations are distinctive.

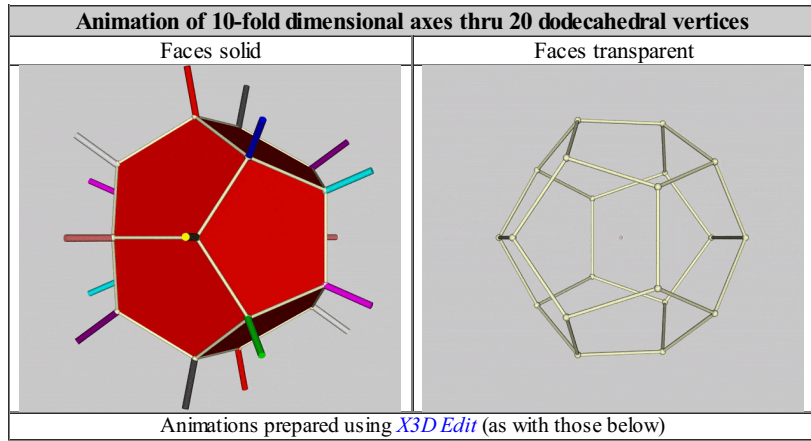
Given that there are 5 corner colours, of which 3 are shared at a vertex, this gives only 10 possibilities if there is no repetition and the order is not significant. However the dodecahedron has 20 vertices to be distinguished. The question is then how to allow for a distinctive second set of 10 vertices. The pattern of processes can then be explored as a map of "cognitive metabolism" -- metabolic pathways in which the vertices constitute "cognitive vitamins". *How the labels are to be appropriately positioned requires further consideration*

Mapping of 12 distinctive 5-fold conditions onto unfolded dodecahedron	
Mapping of Wu Xing to dodecahedron	5-fold Wu Xing patterns distinguished by colouring of 3-fold vertices
	
Prepared with features of the <i>Stella Polyhedron Navigator</i> software package	

**Animation of 10-foldness:** Various approaches can be taken to the design of animations to elicit insight into 10-fold relationships. The 10 axes between the 20 vertexes can be presented in static form, as illustrated above -- possibly varying the diameters of each as an indication of relative importance attached to each, or varying the length as an indication of their relative association with the containing

dodecahedron.

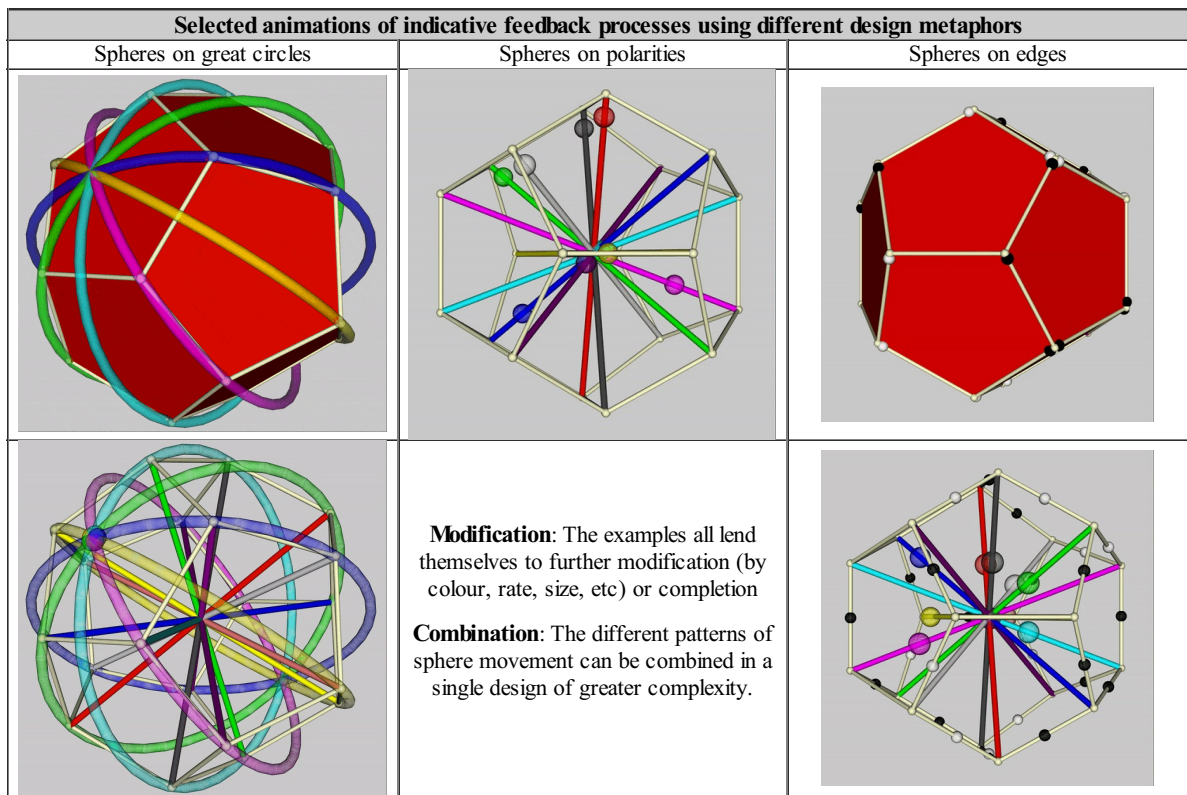
The length of the axes can be varied dynamically as shown in the animations below. These invite consideration of varying the respective rates, whether randomly or in some dynamic pattern -- thereby suggesting that the dodecahedral container is best understood as a potentially emergent pattern of coherence rather than predetermined.



**Feedback processes for sustainability?** Another design metaphor of interest is to allow small spheres to pass along each axis through the common center (below center). Such movement can also be applied along the edges of the dodecahedron (below right), thereby implying **the role of feedback loops interrelating the functional preoccupations of associated with each axis** -- an indication of the integrative functional coherence of 10-foldness. In both cases colour alternation could be used, as suggested by the use of black and white spheres along the edges (below right).

This follows in part from the dynamics indicated above with respect to the **5 outer links** in the *Waxing* pattern (without considering any **5 inner links** across that pattern on each face of the dodecahedron).

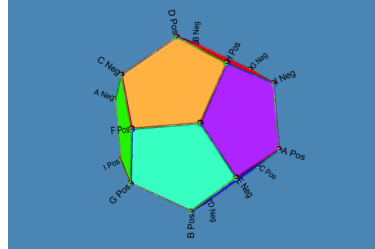
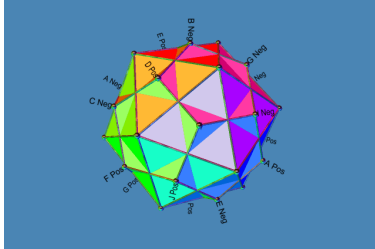
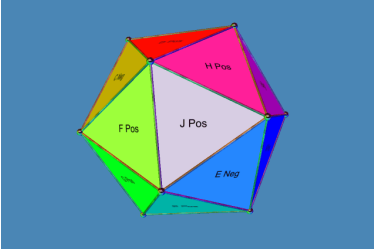
This approach can also be taken to the 5 great circles -- with one (or more) small spheres passing around each, whether randomly or according to some pattern of phases (below left). This suggests insight into any potentially conflictual interaction at the crossing points of the circles.



**12-foldness:** Of particular significance in multiple strategic contexts is the widely recognized strategic role of 12-foldness, as noted above (*Checklist of 12-fold Principles, Plans, Symbols and Concepts: web resources*, 2011; *Eliciting a 12-fold Pattern of Generic Operational Insights: recognition of memory constraints on collective strategic comprehension*, 2011). It is of special significance to Christianity, although the relationships between 12-foldness and the 10-fold set of commandments is seldom considered, if at all. The dodecahedron holds that 12-fold pattern -- symbolized notably by the **12 Apostles** of Christianity, the **12 Imams** in Shi'a Islam, or the **2 Tribes of Israel**.

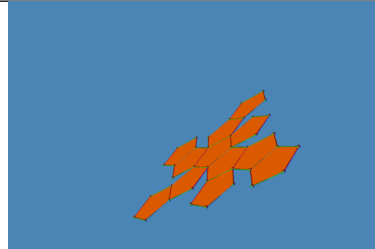
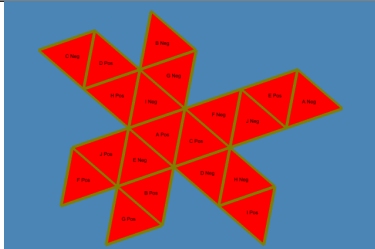
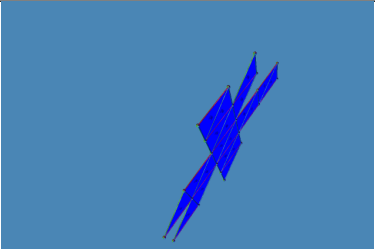
Of further potential interest is the geometric dual of the dodecahedron, namely the icosahedron -- in which the 12 faces of the

dodecahedron are transformed into 12 vertices, and the 20 vertices are transformed into 20 faces, as illustrated in the animations below. In these examples the 10-axes of the dodecahedron are understood as indicative of 20 polar extremes -- "positive" and "negative", however those distinctions may be fruitfully understood in a systemic and functional context. So labelled, their correspondence between the dodecahedral and icosahedral pattern is evident below.

Relation of 20-vertex dodecahedron with its dual -- the 20-face icosahedron		
Dodecahedron Polar extremes on opposing vertices	Fusion of dodecahedron and icosahedron	Icosahedron Polar extremes on opposing faces
		
Animations prepared with features of the <i>Stella Polyhedron Navigator</i> software package (as with those below)		

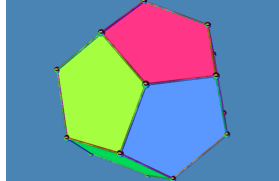
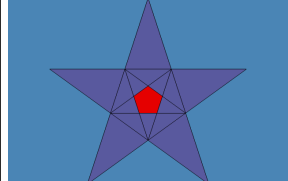
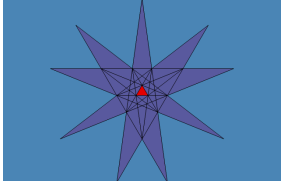
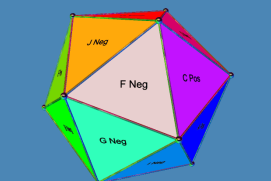
**Enfolding a cognitive container?** There is clearly a challenge to comprehension in understanding 10-foldness and 12-foldness and the nature of any encompassing cognitive container for the functions and dimensions with which they are associated in systemic terms. Another design metaphor is the use of animation to (un)fold the dodecahedron or its dual as shown below. In the case of the icosahedron the face labelling is preserved by the software.

Intriguingly the quest for a safe place for humanity could be explored in such terms (Kate Raworth, *A Safe and Just Space for Humanity: can we live within the doughnut?* Oxfam, 2012). Geometrical transformations between the dodecahedron and the torus can be explored. The construction of bunkers by survivalists, could be seen as an intuitive recognition (however unconscious) of the cognitive challenge to the comprehension and construction of some such container.



Creating complementary containers for polarities through folding duals?		
Folding of dodecahedron	Icosahedron unfolded	Folding of icosahedron
		

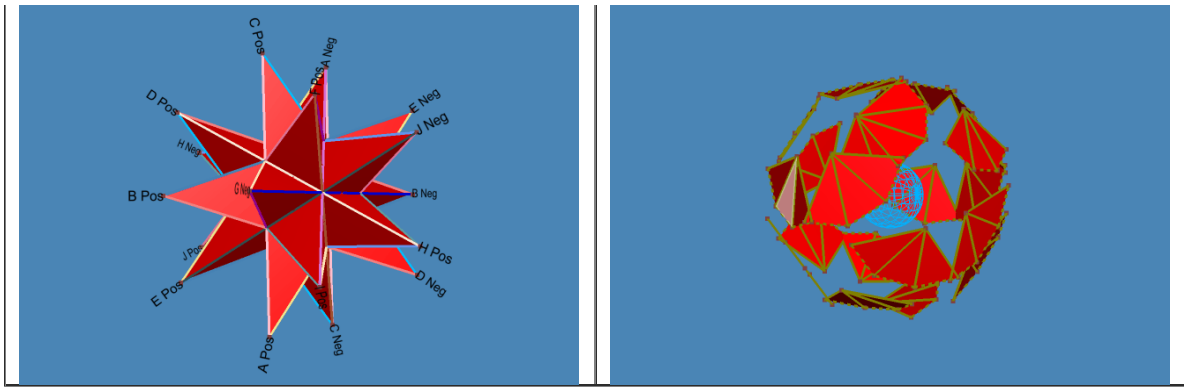
**Eliciting further feedback loops through complexification:** Polyhedra such as the dodecahedron can be subject to a geometric transformation known as **stellation**. This is the process of extending a polyhedron in three dimensions (or, in general, a polytope in n dimensions) to form a new figure. Starting with an original figure, the process extends specific elements such as its edges or face planes, usually in a symmetrical way, until they meet each other again to form the closed boundary of a new figure.

This results in forms variously consistent with the original geometry, but multiplies the number of links framing the axes -- thereby providing a more articulated context through which 10-foldness or 12-foldness is sustained systemically, and potentially associated more closely with less abstract systemic insights.

Complexification of relations between strategies as suggested by stellation			
Dodecahedron		Icosahedron	
Animation of stellations	Stellation diagram	Stellation diagram	Animation of stellations
			

Of related interest is the great stellated dodecahedron shown below with the 20 axial polarities duly labelled, but associated with pentagonal prisms on each face. This form may in turn be (un)folded as shown below.

Great stellated dodecahedron (with 10 axes through 20 vertices)	
Rotation of 10 polarized dimensions	Folding
	



## Strategic comprehension and dimensional compactification

Physics is now highly dependent on understandings of the higher dimensional nature of the reality with which it is preoccupied. These extend beyond the three or four [dimensions](#) which commonly feature in conventional discourse and governance. There are theories that attempt to unify the four [fundamental forces](#) by introducing [extra dimensions](#). Most notably, [superstring theory](#) requires [10 spacetime dimensions](#), and originates from a more fundamental 11-dimensional theory tentatively called [M-theory](#) which subsumes five previously distinct superstring theories.

Of relevance to the argument with respect to any ten commandments, threats, or N-fold strategies, is whether these can be considered as "dimensions" -- thereby evoking the possibility of benefiting from the explorations of physics regarding their comprehension. Curiously there is seemingly little effort to challenge the assumption that psychosocial dynamics can be usefully encompassed by three or four dimensions. Exceptions include: Ron Atkin (*Multidimensional Man*, 1982) and Antonio de Nicolas (*Meditations through the Rig Veda: Four-Dimensional Man*, 2003).

To the extent that reality is a direct experience of space-time, as physics would have it, quantum reality may reinforce such comprehension. One such is the radical exploration by [Alexander Wendt](#) (*Quantum Mind and Social Science: unifying physical and social ontology*, 2015). Why is it so readily (if not arrogantly) assumed that any set of "ten commandments" is less of a challenge to comprehension than that recognized by fundamental physics?

In physics it is argued that if extra dimensions exist then they must be "hidden" by some physical mechanism. Understood as [compactification](#), one well-studied possibility is that the extra dimensions may be "curled up" at such tiny scales as to be effectively invisible to current experiments. Considerable efforts are seemingly made to avoid any inference that psychosocial reality may call for recognition of elusive "curled up" dimensions, although the applications of complexity theory would suggest the relevance of some such understanding.

Is there a case for recognizing how any set of "ten commandments" may be "curled up" in such a way that many deny their existence or significance -- as could be argued with respect to the worldview of secular cynics?

[Peter Senge](#), for example, considers a sixth discipline to be ungraspable (*The Fifth Discipline: The Art and Practice of the Learning Organization*, 2006). Patterns of greater complexity, such as the UN's SDGs, then become patterns which ought to be meaningful -- if people could but comprehend them. The point can be emphasized through juggling as a metaphor. Given the limited number of objects the average person can juggle (2, 3, 4?), what is the possibility of juggling 7, 8 or 9 disciplines in practice and collectively (*Governance as "juggling" -- Juggling as "governance": Dynamics of braiding incommensurable insights for sustainable governance*, 2018)?

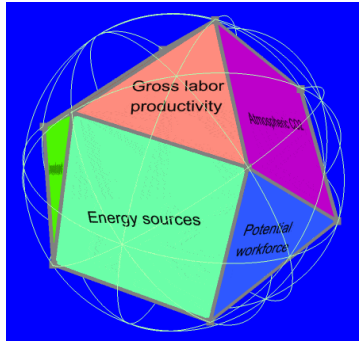
Given the subtlety to which mystics refer, and which is honoured to varying degrees by theology and [sacred geometry](#), the geometrical arguments developed above could be explored otherwise through mathematical theology, as discussed separately (*Mathematical Theology: Future Science of Confidence in Belief: self-reflexive global reframing to enable faith-based governance*, 2011). There is a degree of irony to the possibility that reference to such subtlety is most evident in widespread use of profanity (*Profanity as a compactification of an intuited multidimensional experience*, 2020).

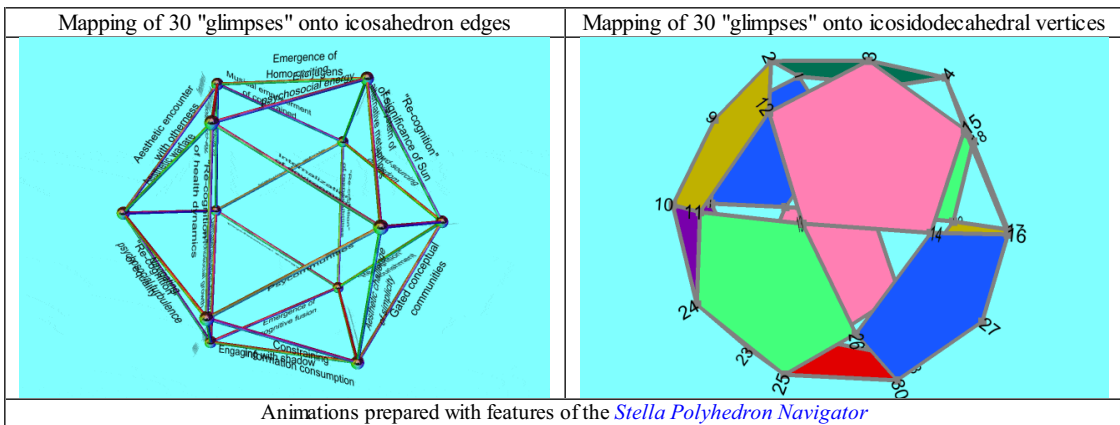
## Application to insights offered by the Club of Rome

As noted above, the approach to any 10-fold framework follows from arguments made in critical reviews of reports to the Club of Rome -- whose long-term relevance is not recognized by the Commission for the Human Future. The following animations derive from the first report (*2052: A Global Forecast for the Next Forty Years*, 2012), as reviewed separately (*Engendering 2052 through Re-imagining the Present*, 2012).

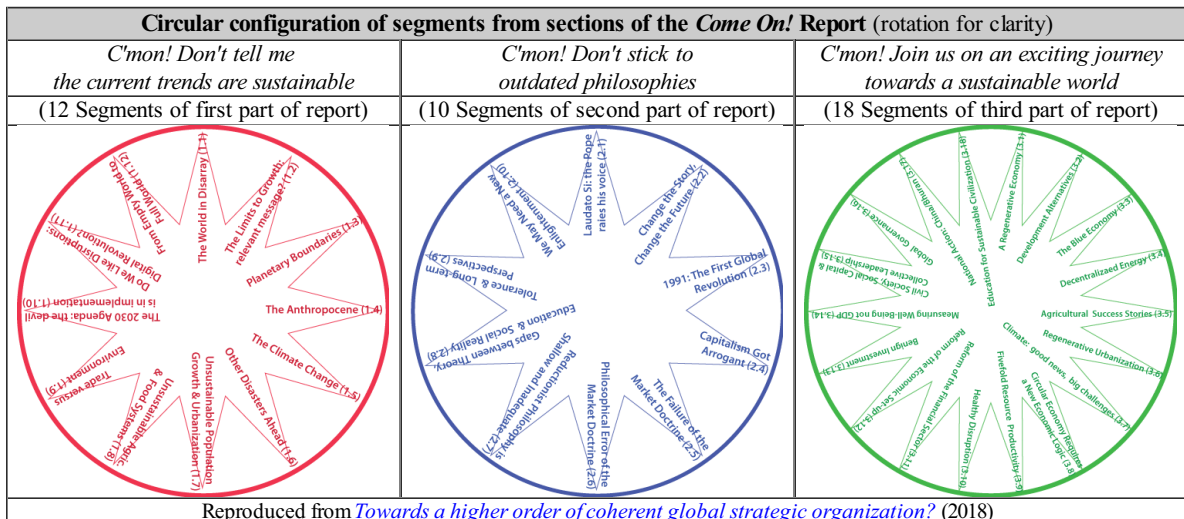
**Engendering 2052:** This report identified 34 "glimpses" which were tentatively reframed to 30 in the commentary, as indicated there (*Reframing the 2052 Report through imaginative inquiry*, 2012) and in the right-hand columns below -- enabling the animations presented thereafter. However the "glimpses" interspersed throughout the report can (in many instances) be understood as the "glimpses of humanity" which are not integrated into that systemic framework. The 14 "tangible factors" bear a degree of correspondence to the 10 "threats" identified in the report of the Commission for the Human Future.

Mapping of dimensions identified by the Club of Rome 2052 Report	
Mapping of 14 "tangible factors" onto faces of a cuboctahedron	30 "Glimpses" imaginatively reframed as fundamental to dematerialisation in a knowledge-society (see mappings below)
	1. Engaging with <a href="#">endarkenment</a> and   18. "Re-cognition" of <a href="#">dynamics of</a>

	<p>humanity's shadow</p> <ol style="list-style-type: none"> <li>2. Constraining information consumption and information overload</li> <li>3. Dancing with the <b>psychological significance of sustainability</b></li> <li>4. "Re-cognition" of equality and exploring fruitful distinctions</li> <li>5. Psychosocial turbulence and its navigation</li> <li>6. Transition to psychosocial growth based on dematerialisation</li> <li>7. Conscious embodiment of cognitive metabolic pathways</li> <li>8. Direct derivation of <b>psychosocial energy</b></li> <li>9. Emergence of <b>cognitive fusion</b></li> <li>10. Collective cognitive embodiment of <b>great ocean conveyor</b></li> <li>11. Flocking, swarm intelligence and <b>gated conceptual communities</b></li> <li>12. &gt; 13</li> <li>13. "Re-cognition" of new forms of nourishment</li> <li>14. Aesthetic challenge of greater voluntary simplicity</li> <li>15. <b>Technomimicry</b> as primary source of cognitive innovation</li> <li>16. Psychosocial recreation of natural ecosystems -- <b>psycommunities</b></li> <li>17. Dwelling globally through <b>embodiment of the environment</b></li> </ol>	<p>health in a systemic context</p> <ol style="list-style-type: none"> <li>19. Aesthetic warfare -- Global <b>Glass Bead Gaming</b></li> <li>20. <b>Aesthetic martial arts</b> for the encounter with otherness</li> <li>21. <b>Transcendence of binary contractual constraints</b></li> <li>22. "Re-cognition" of disparity</li> <li>23. <b>Musical empowerment of the existentially constrained</b></li> <li>24. <b>Valuing the whole</b> through its embodiment in new forms</li> <li>25. "Re-cognition" of <b>human responsibilities</b></li> <li>26. Crowd-sourcing of collective wisdom</li> <li>27. &gt; 19</li> <li>28. &gt; 30</li> <li>29. "Re-cognition" of systems of confidence-based "finance"</li> <li>30. "Re-cognition" of symbolic significance of the Sun</li> <li>31. Ecosystemic integration of <b>alternative cultural metaphors</b></li> <li>32. Eliciting psychosocial energy from natural processes</li> <li>33. &gt; 34</li> <li>34. <b>Emergence of Homo conjugens</b></li> </ol>
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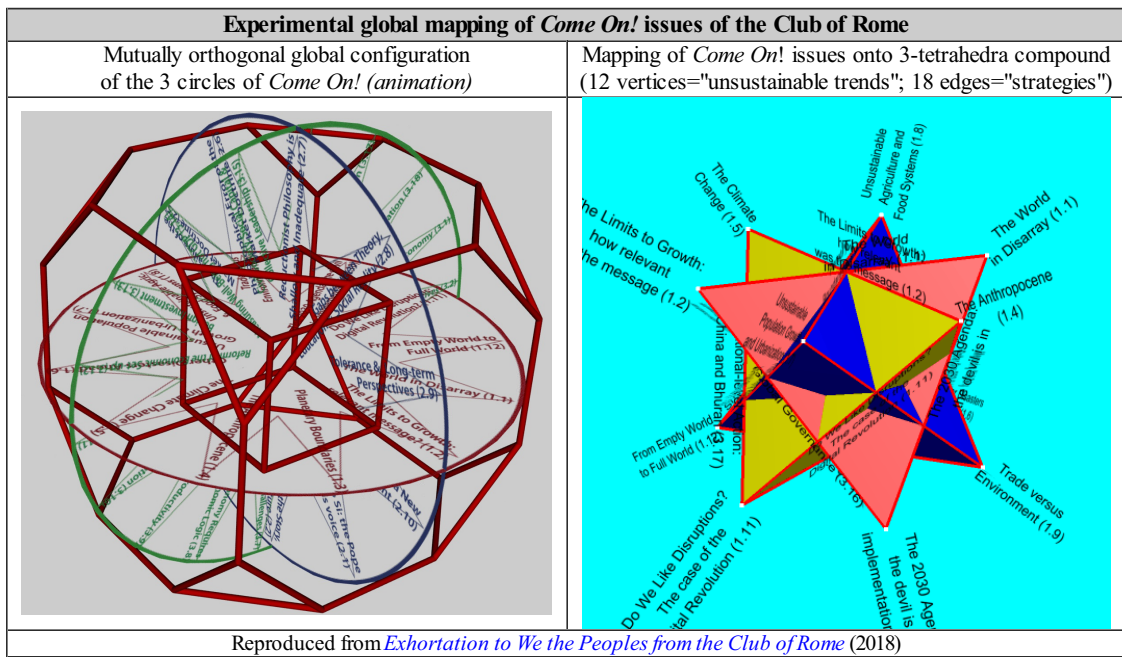


**Come On!** A similar approach was applied to the insights of the second report to the Club of Rome (*Come On! Capitalism, Short-termism, Population and the Destruction of the Planet*, 2018), as reviewed separately (*Exhortation to We the Peoples from the Club of Rome*, 2018).



The three circles above can then be understood as configured in 3D -- interlocking dynamically -- as suggested by the animation of screen shots below-left, and separately discussed (*Towards a higher order of coherent global strategic organization?* 2018). **This could be understood as the dynamic complex of dimensions by which global governance is currently challenged.** The animation on the

right is an experimental representation of the issues identified by the report on a 3 tetrahedra compound, also separately discussed (*Towards a geometry of systemic thinking and its symbolism*, 2018). With respect to 10-foldness, the central image above is the Club of Rome's articulation of "outdated philosophies" -- potentially to be compared with the 10 threats-risks of the report of the Commission for the Human Future.



The succession of screen shots above left is of some interest for several reasons. Whilst it is possible to explore the rotating circles by rotating the configuration interactively as a whole, there are technical difficulties in rendering accessible a non-interactive video via the web (hence the set of screen shots), avoiding the inversion of the text of the message of the circles from certain perspectives, and the apparent reversal of direction of rotation.

As an effect of the design of the representation these constraints usefully recall the differences in perspectives encountered in reality -- with the understanding from one perspective being confused or incomprehensible from another. Aspects of this challenge to global consensus can be explored in more detail (*Unquestioned Bias in Governance from Direction of Reading? Political implications of reading from left-to-right, right-to-left, or top-down*, 2016)

**Planetary boundaries and torus geometry:** The report to the Club of Rome refers to the 9 planetary boundaries which have been related to the torus through the doughnut model of Kate Raworth (*A Safe and Just Space for Humanity: can we live within the doughnut?* Oxfam, 2012), as discussed separately with various visualizations (*Exploring the Hidden Mysteries of Oxfam's Doughnut: recognizing the systemic negligence of an Earth Summit*, 2012).

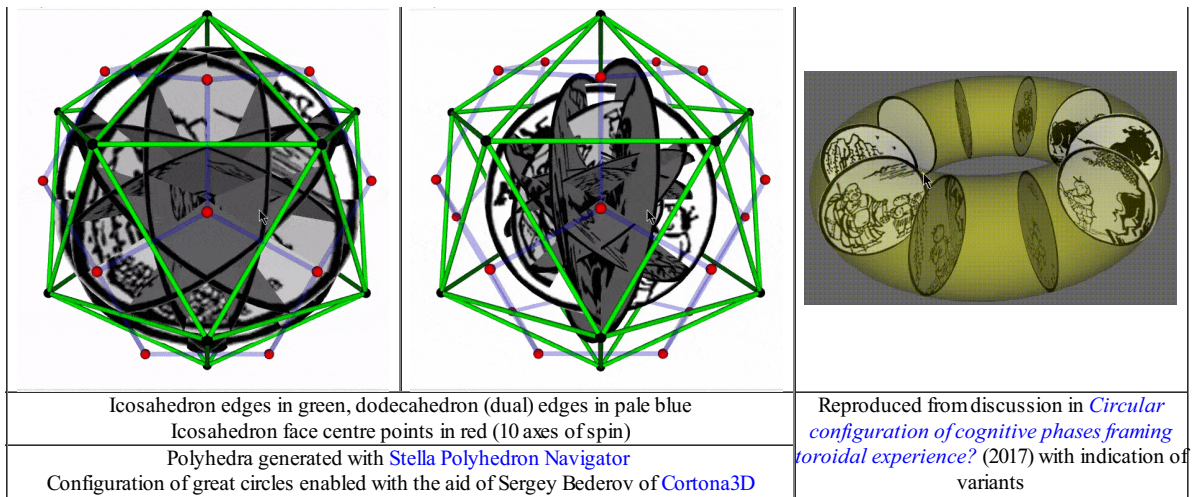
It is intriguing to note that cosmologists continue to debate the shape of the universe, whereas the social sciences have seemingly reinforced an understanding of the shape of civilization as being global -- to the extent that the "shape of society" is a matter of concern. For cosmologists, however, one aspect of the debate is whether the topology is simply connected like a sphere or multiply connected, like a torus.

To the extent that the shape of civilization may be other than is implied by the geometry of "global" -- if only cognitively -- there is a case for exploring the manner in which it may be toroidal -- if only as a phase in a pattern of transformations (*Imagining Toroidal Life as a Sustainable Alternative: from globalization to toroidization or back to flatland?* 2019). This is intriguingly consistent with the desperate efforts to construct a toroidal container for nuclear fusion to resolve humanities future energy requirements, suggesting a cognitive analogue (*Enactivating a Cognitive Fusion Reactor Imaginal Transformation of Energy Resourcing (ITER-8)*, 2006).

It is obviously far from clear -- as yet -- why cognitively there is a preference for 8-foldness, 9-foldness or 10-foldness. It is intriguing therefore to explore one carefully cultivated insight into 10-foldness which lends itself to visualization on a torus, namely the 10 ox herding pictures of Zen. In contrast with many other 10-fold articulations, framing a form of enlightenment, the pictures are held to indicate stages in the process towards enlightenment (*Phases in the "Re-cognition" of "Bull" according to Zen? Experimental attribution of significance to traditional distinctions*, 2017).

In a period in which N-foldness of any kind is subject to the distortions of misinformation and fake news ("bull"), the metaphor invites consideration in that light (*Zen of Facticity: Bull, Ox or Otherwise? Herding facts and their alternatives in a post-truth-era*, 2017). The use of both an icosahedral-dodecahedral container and a torus are indicated in the animations below from that argument -- without mention of alternative variants discussed there.

10 Zen images in polyhedral and toroidal containers		
Icosahedron as a container with images mapped onto 10 great circles	Torus as a container	
animation of cycle in .mp4 format: vertical, expanding. Also x3d source	(also .mp4, .wrl and .x3d versions)	
screen shot of vertical animation (10 images)	screen shot of expanding animation (5 images)	



## Reconciling disparate strategic frameworks

**Mysterious systemic failure?** The report of the Commission for the Human Future echoes the sentiments of the Club of Rome's "*Come On*" with conclusions such as the following:

It is essential that all human belief systems, political, religious, monetary and in terms of the narratives we tell ourselves, commit to a shared goal of surviving and thriving. We must recruit the best and brightest young people to build and lead this process. This demands the inclusion of far more voices outside the current centres of power: women, youth, First Peoples, minorities, the poor and physically isolated.

Unfortunately the report completely fails to address the process of why such calls continue to fail, despite the highest values promoted by the "august" and with which they purport to identify -- despite claims to the contrary by the less eminent. Unfortunately early examples remain relevant to the collective learning challenge for the future (*Collective Learning from Calls for Global Action*, 1981). As the date suggests, lipservice has longed been paid to what ought to be done, with little capacity to identify why it is not done -- other than by allocating blame to other parties, as may be variously explored:

- *Collective Mea Culpa? You Must be Joking ! Them is to blame, Not us!* (2015);
- *Responsibility for Global Governance Who? Where? When? How? Why? Which? What?* (2008);
- *International Community as God or Sorcerer's Apprentice? Strategic chaos in the absence of an interlocking temporal pattern of longer-term cyclic processes* (2015)
- *Are the UN and the International Community both Brain Dead?* (2019)

Such articulations, however speculative, frame the question as to why the global system of governance is so vulnerable to failure -- and how failure is to be anticipated. The argument above suggests that this is partially a consequence of negligence in the articulation of strategic frameworks (*Variety of System Failures Engendered by Negligent Distinctions*, 2016). Does negligence with regard to each feature in an N-fold strategic framework then imply a weak link? Are ill-thought out exhortations and injunctions (if not commandments), as to what "we" should all do, another aspect of the problem -- in the absence of any realistic understanding of "we"?

**Framework reconciliation?** The challenge of "we" is only too evident in the conflictual relations cultivated over millennia by the Abrahamic religions, between each other and in relation to other belief systems. There is therefore a case for addressing their relationships through their preferred sets of principles as suggested above with respect to the sacred geometry variously valued by them (*Mathematical Theology: Future Science of Confidence in Belief: self-reflexive global reframing to enable faith-based governance*, 2011).

The contrasting assertions night and day from different parts of the globe -- at a particular moment in time -- suggest that there is the delightful possibility that the challenge of reconciliation could be explored as a matter of contrasting perspectives on geometric frameworks and their relationships. Do different belief systems articulate their fundamental beliefs through the manner in which they variously emphasize features of relatively simple geometrical forms -- point, lines, circles, polygons?

Ironically a well-known aspect of this problem is evident in the desperate effort to find a meaningful way to map the 3D globe into 2D -- a process of projection, of which there are many (*List of map projections*, *Wikipedia*). Are contrasting strategic frameworks to be understood as contrasting projections whose reconciliation involves a relatively simple geometrical transformation -- whether in 3D, 4D, or higher dimensionality?

The example above of the dodecahedron is especially interesting. Through its great circles, it holds the relationship between the 5-fold beliefs fundamental to the Abrahamic religions, for example, as well as offering a relationship to a fundamental Chinese articulation. It clearly offers a relation between their 12-fold and 10-fold patterns. More complex examples are offered separately (*Associating significance with a dodecahedron; Increasing the dimensionality of the archetypal Round Table?; Necessity of encompassing a "hole" -- with a dodecameral mind?*).

More intriguing is how the geometrical relation to the form of the Star of David can be recognized from such a perspective -- given its particular importance to Judaism, and the contrast with the 5-fold star characteristic of Islam. Given the ongoing conflictual relations

between the Abrahamic belief systems, does investigation of geometrical reconciliation offer new possibilities, as suggested by the following:

- *Middle East Peace Potential through Dynamics in Spherical Geometry: engendering connectivity from incommensurable 5-fold and 6-fold conceptual frameworks* (2012)
- *Reconciling Symbols of Islam, Judaism and Christianity: catalytic methodology for effective interfaith dialogue* (2017)
- *Framing Global Transformation through the Polyhedral Merkabah: neglected implicit cognitive cycles in viable complex systems* (2017)
- *Jerusalem as a Symbolic Singularity: comprehending the dynamics of hyperreality as a challenge to conventional two-state reality* (2017)

Given the hopes associated with the UN's Sustainable Development Goals, how is that framework to be reconciled with any Abrahamic framework, or the 10-fold pattern of the report of the Commission for the Human Future? Is that "future" singular or potentially multiple, as called into question by the [World Futures Studies Federation](#)?

Aspects of the challenge are explored separately (*Global Coherence by Interrelating Disparate Strategic Patterns Dynamically: topological interweaving of 4-fold, 8-fold, 12-fold, 16-fold and 20-fold in 3D*, 2019).

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