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International Institute of Advanced Studies in Mathematical Theology

Enabling Proposal for Faith-based Governance

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Introduction

The strategic importance of faith-based governance is evident from the conflicts sustained by it as well as by its continuing significance in the politics of dominant superpowers. Despite the claims of science and atheists, adherence to extraordinary world views is increasing, as documented by editors of *The Economist*, John Micklethwait and Adrian Wooldridge (*God Is Back: how the global revival of faith is changing the world*, 2009). It is even argued that "God-based thinking" is destroying the economy (Joshua Holland, *How Conservative Politicians Wait for God to Fix the Economy, With Frightening Results*, *AlterNet*, 26 September 2011).

The relation of religion to science-based secular world views sustains another form of intractable conflict. It might also be said that the resource problems of the world are the consequence of various understandings of the scriptural injunction to "multiply" (*Genesis 1:28*).

It is however also evident the extent to which strategic proposals for governance of the complex challenges of society are now promoted with the expectation that all concerned are called upon to take such proposals "on faith" and to "believe" in their positive outcome -- despite widespread expressions of concern regarding "breakdown of trust". This is exemplified in the case of responses to the current financial crisis. Conventional deprecation of "faith" as intangible and nebulous has been radically challenged by the central role of "confidence" and "trust" -- usefully understood as synonyms -- with respect to the financial system. Collective initiatives of any kind are also now typically formulated in terms of sets of principles and values, which participants are expected to believe, to promote and to embody.

Given the relative lack of impact of inter-faith dialogue on the bloody conflicts with which the world is confronted daily, the strategic argument here is whether the more fundamental differences could not be more productively explored through mathematical theology. This follows from the number-governed manner in which fundamental beliefs tend to be framed by religions and the "higher dimensionality" to which they variously aspire.

The proposal here for an "International Institute of Advanced Studies in Mathematical Theology" is a deliberate provocation. It is a call for a global reframing of the conventional understanding of each of the terms in this well-known institutional pattern of academic activity. This is seen as a means of exploring new ways of enabling the faith-based governance upon which all are now seemingly called to depend.

The purpose here is to explore the range of issues which might determine how such an initiative could be formed (especially in a mathematical sense), what themes it might include, how it might be organized, who might be interested, how it might function, where it might be located, and the like. In a sense such a scoping exercise might itself suffice to stimulate exploration of mathematical theology

within other institutional contexts.

The question raised by this presentation is what a variety of others might bring to the table in scoping out the possibility, whether or not there is any commitment to making it a reality. More generally, what is the imaginative initiative that a fruitful interaction between mathematicians and theologians could engender and render sustainable through any [adaptive cycle](#)? Perhaps even more intriguing is **what might the young imagine that these disciplines would engender -- as an attractor within which they in turn could aspire to strive.**

Concern with the "divine", with which theology is conventionally preoccupied, is radically reframed in this exploration in order to encompass that to which people may well attribute the term "divine" in their lives -- in which they believe most profoundly, or in which others (including politicians and economists) call upon them to have faith. Can more sophisticated mathematics offer insights into the nature of that engagement with belief and the confidence it offers -- as previously discussed (*Human Values as Strange Attractors*, 1993). Are such insights as relevant to the most spiritual as to those who associate their most profound beliefs with sport, friends, music, gardening, dance, wine, an ideology -- or possibly with the exemplars of that world?

Potential strategic importance of mathematical theology

Theology and mathematics are both deeply implicated in the conflicts which are the preoccupation of this presentation. The former in the incitement and justification of such conflicts, the latter in enabling ever greater degrees of violence. This is characteristically ignored in the other worldly pursuit of those professions.

Escalating development and use of military and surveillance hardware make it unnecessary to offer specific examples with respect to mathematics. It is however appropriate to note examples in which theologians are seemingly dissociated from those speaking in the name of religion, most notably to Christian audiences:

- Former US presidential candidate, Reverend [Pat Robertson](#), speaking to 7 million viewers of the evangelical [Christian Broadcasting Network](#) on 23 August 2005 [[more](#)] called for the assassination of the president of Venezuela, Hugo Chavez:

"We have the ability to take him out, and I think the time has come to exercise that ability... It's a whole lot easier to have some of the covert operatives do the job and then get it over with." [[more more more](#)]

One commentator suggested that Robertson had effectively issued a *fatwa* against Chavez, which it might be expected that his evangelical followers in Venezuela would feel fully justified in endeavouring to act upon (Leigh Saavedra. [Pat Robertson declares fatwah on Chavez](#) *Counter currents.org* 24 August, 2005)

- The widely-syndicated, spiritually-inspired, American radio and TV host, [Glenn Beck](#), praised for his defence of traditional American values, is widely noted for his recorded comments on "[thinking about killing Michael Moore](#)" (*Media Matters for America*, 18 May 2005):

"I could kill him myself, or if I would need to hire somebody to do it...No, I think I could. I think he could be looking me in the eye, you know, and I could just be choking the life out. Is this wrong?" ([Glenn Beck threatens to kill Michael Moore](#), YouTube)

Beck was subsequently featured regularly on [Fox News Channel](#) (a subsidiary of [News Corporation](#)) available to over 100 million households in the USA -- a relationship only finally terminated on 30 June 2011.

In neither case, as [Michael Moore](#) points out with regard to the incitement to kill him, was any issue raised by the [US Federal Communication Commission](#) (FCC) -- presumably because the incidents conformed to an acceptable pattern of belief. Moore contrasts that with the breast-baring of [Janet Jackson](#) in the [Super Bowl XXXVIII halftime show controversy](#) (2004), which resulted in a record fine levied against CBS. Incitement to kill by Islamic fundamentalists is framed otherwise.

The strategic implications of belief are brought into even sharper focus within the context of The White House -- renowned for daily staff prayer meetings. When asked during a CBS interview in 1996 regarding the death of 500,000 children in Iraq as a result of US-imposed sanctions, US Secretary of State [Madeleine Albright](#): commented: "[we think the price is worth it](#)". The associated conviction derives from a sense of belief in a "[manifest destiny](#)" -- a form of "[divine right](#)", natural to a "[chosen people](#)". At the time of writing it is evident in news of an official US secret kill-or-capture panel (Mark Hosenball, [Secret panel can put Americans on 'kill list'](#), *Reuters*, 5 October 2011).

Clearly similar convictions are developed and justified within the faith-based governments of other cultures. This would confirm the questionable nature of the argument regarding [moral equivalence](#) with respect to the foreign policy of the USA, as articulated by the former US Ambassador to the UN, [Jeane Kirkpatrick](#) (*The Myth of Moral Equivalence*, Imprimis, January 1986).

Middle East: The argument which follows is presented during yet another dramatic crisis -- the Palestinian request to the UN for recognition of long-promised statehood -- in the intractable dynamics between two faith-based cultures with the strongest mathematical traditions, namely Judaism and Islam. Their incapacity to apply these insights in order to transcend an age-old conflict is itself as remarkable as the seeming inability of mathematicians to advocate techniques commensurate with the complexity of the issue ([And When the Bombing Stops? Territorial conflict as a challenge to mathematicians](#), 2000; [Reframing Relationships as a Mathematical Challenge: Jerusalem -- a parody of current inter-faith dialogue](#), 1997).

Given its reputation as the discipline most skilled at the exploration and comprehension of relationships of the subtlest kind, where is the analysis of the branches and levels of mathematics that have endeavoured to explore intractable conflicts? What possibilities have

emerged for agreements of a higher order regarding the so-called "two-state" solution and for Jerusalem, for example?

Given the proposal by the [Middle East Quartet](#) for renewed negotiations, in immediate response to the Palestinian request to the UN for membership, what new mathematical insights have been identified to reframe previously unfruitful options? (*Mahmoud Abbas cool on Mid-East Quartet talks blueprint*, *BBC News*, 24 September 2011)?

At a time when it is widely argued that "every possible avenue has been explored" and "no stone has been left unturned", why is mathematics not seen as offering further possibilities -- as is so readily accepted in the development of ever more sophisticated weaponry and surveillance facilities? How has such mathematical analysis been inhibited or deprecated -- in comparison to its application to the exploration of complex scriptural codes and esoteric possibilities?

Topology: With respect to faith-based conflicts, is it not the case that the parties involved are in principle amenable to solutions of "higher dimensionality" consonant with mathematical theology -- and however this is to be understood? The proposal is made as a consequence of a preceding exercise in which these introductory points were made in relation to the cognitive implications of the topology of the [Klein bottle](#) and the [Möbius strip](#) (*Strategic Complexity ∞ Attracting Consensus: Klein is beautiful ∞ Sustaining identity in time*, 2011).

Physics gives credibility to the manner in which a Newtonian framework in physics is subsumed by an Einsteinian framework (with the latter subsumed in turn by string theory as an emergent Theory of Everything). Given that conventional "two-state" solutions are defined within a Newtonian framework, what might be the "Einsteinian framework" within which "Newtonian inconsistencies" could be resolved -- as a prelude to a Theory of Everything?

Such considerations have implications for possible responses to intractable dynamics currently expressed geometrically, such as "reciprocal extraterritoriality" and "condominium" -- beyond oversimplistic proposals for a "two-state" solution. The issue is how to enable imaginative engagement with them, even assisted by mythopoeic modalities more characteristic of faith-based discourse than the proposals for new "metrics" (*Relevance of Mythopoeic Insights to Global Challenges*, 2009; *Uncritical Strategic Dependence on Little-known Metrics*, 2009).

Given the development of the topological argument, is there a case for combining it dynamically with the coherence offered by spherically symmetrical polyhedra -- in the quest for more powerful ways of informing set of values as fundamental to theological concerns (*Topology of Valuing: psychodynamics of collective engagement with polyhedral value configurations*, 2008; *Towards Polyhedral Global Governance: complexifying oversimplistic strategic metaphors*, 2008)?

Strategic dilemmas: Governance is bedevilled by the seemingly incommensurable nature of the alternatives characteristic of strategic dilemmas (*Configuring Strategic Dilemmas in Intersectoral Dialogue: summary of analysis on the occasion of Earth Summit*, 1992).

Does understanding of the Klein bottle, as previously outlined, merit exploration as offering a potential bridge transcending binary dissociation? Similarly, posing strategic dilemmas in their own right, might interdisciplinary, intercultural and interfaith discourse be enabled in unforeseen ways by this approach -- most symbolically in the case of Jerusalem.

Strategic initiative : In such a context there would appear to be a case for something of the form of an "*International Institute for Advanced Studies in Mathematical Theology*" -- inspired by that for physics and mathematics at the Institute for Advanced Studies (Princeton), the Center for Advanced Studies in the Behavioral Sciences (Palo Alto) or by that for the complexity sciences at Santa Fe. None appears to exist, whether or not other bodies have the theme as one of their preoccupations in some way.

It is assumed here that the "Institute" envisaged would be uniquely placed and qualified to advise of options which are beyond the scope and mandate of conventional strategic "centres of excellence".

Naming such an initiative appropriately is itself an interesting challenge, given the problematic insights currently provided by "think tanks" ("*Tank-thoughts*" from "*Think-tanks: metaphors constraining development of global governance*", 2001; *Meta-challenges of the Future for Networking through Think-tanks*, 2005). Should it be framed as an "institute", a "network", a "community", etc -- and what might such terms then imply?

Such considerations suggest the value of framing whatever is engendered as a self-reflexive, self-organizing initiative for the future.

Mathematical theology: future science of confidence in belief

The argument is developed as an [Annex](#) in the following sections:

- [Reframing mathematical theology in terms of confidence](#)
- [Imagining the initiative: reframing conventional labels](#)
- [Institutional and thematic precedents](#)
- [Organization of the initiative](#)
- [Examples of research themes for consideration](#)
- [Integrative thematic organization](#)
- [Mathematical theology of experience](#)
- [Comprehension of ignorance, nonsense and craziness](#)
- [Implication of research on opinion and belief](#)

Symbolic location of the initiative

The question of the location of a "International Institute of Advanced Studies in Mathematical Theology" usefully brings into focus the

initial concern with intractable conflicts. Appropriately conventional extremes might include: Jerusalem, Rome, Brussels, or Washington.

The unresolved geographic and symbolic issues highlight the current level of incompetence in making any such decision appropriately. Each variously emphasizes the challenge of the others -- and especially those significant to other faiths. It is questionable whether such an initiative can be located "anywhere". Contemporary alternatives meriting reflection include:

- location within a [virtual world](#), whether specially constructed or using the facilities of [Second Life](#)
- embedded in the intricacies of a multilevel [interactive game](#) -- perhaps mysteriously, with echoes of *Myst* or the *Da Vinci Code*

Potentially more interesting is the reframing of "locus" and "topos" in relation to the intersecting preoccupations of mathematical theology. It is from such reflections that new insight might be expected to emerge in relation to Jerusalem, for example. Especially relevant is the extent to which Jerusalem itself corresponds to the exclusivism shared by the Abrahamic religions -- explicitly excluding the insights and sacred centres of other faiths.

How this mutual invisibility might be understood as the consequence of "horizon effects", through their respective mappings on a surface as yet to be discovered, is potentially a well-defined mathematical challenge. More intriguing still is the operation of those "horizon effects" in relation to the perceptions of Jerusalem itself by the different Abrahamic religions -- and the catastrophes which emerge in consequence.

Conclusion

Implication in conflict: The preoccupation in this proposal has been with intractable conflicts, notably those associated with religious belief (*Future Challenge of Faith-based Governance*, 2003). In the case of the Abrahamic religions, these conflicts are reinforced by the seemingly incommensurable strategies of the [Great Commission](#) of the Christian tradition, the [Aleinu](#) as the fundamental expression of duty in Judaism, and the commitment of Islam to extending *Sharia* through *Jihad*.

As noted above, theology and mathematics are both deeply implicated in such conflicts, the former in the incitement and justification of those conflicts, the latter in enabling ever greater degrees of violence. This is characteristically ignored in the other worldly pursuit of those professions. In a time of bloody conflicts, however, any overriding concern of mathematical theology with the relation between "God" and "infinity" could well be construed as extremely irresponsible -- even as a form of escapism.

Science of confidence and credibility: As noted, the crisis of the times is now being recognized in terms of confidence challenged by breakdown of trust -- notably with respect to governance in all its forms (*Abuse of Faith in Governance*, 2009). Mathematics and theology share a preoccupation with offering a degree of certainty in response to uncertainty -- namely a fundamental concern with "something to believe in" in a time of risk. In that sense mathematical theology can be considered the "science of confidence" -- beyond the temporal preoccupations of opinion research, so valued by [just-in-time](#) governance. The issue is indeed one of "confidence building" through cultivation of a creative cognitive relationship to certainty and conviction.

At a time of financial crisis, it is therefore curious that analysis and commentary continue to be framed in monetary terms -- such as to avoid the deficits and bankruptcies of those too large to fail. With money being merely a token of confidence, there is a strong case for shifting the language to commentary on the trust, confidence, faith or belief in any initiative purporting to depend on widespread credibility in a context of "confidence deficit". Rather than "*it's the economy, stupid*", the way forward calls for recognition that "*it's the belief, stupid*" -- confidence in unquestionable belief -- and hence the justification for mathematical theology. This might be understood as the fundamental science of credibility -- engendering conviction -- as distinct from any application in the shorter term of manipulative public relations, image management and news management. The emphasis is effectively on the internalizing of the "knowing" characteristic of "science" -- as an external enterprise -- thereby entangling with the "theology" of the emergent conviction.

"Enormous theorems": There is a degree of irony to the fact that something "enormous" is fundamental to both mathematics and theology. For theology, it is a question of deity as a "mega-meta-belief" or a "meta-mega-belief" -- totally beyond normal human ken. For mathematics this takes the form of the so-called "enormous theorem" regarding the "[classification of finite simple groups](#)". The so-called "proof" of this theorem consists of tens of thousands of pages in several hundred journal articles written by about 100 authors (published mostly between 1955 and 2004). Few have the competence or patience to verify that proof -- whose validity must be taken "on faith" by those of lesser capacity.

There is further irony in relation to the fact that the [existence of deity](#) has long been readily considered to be totally without meaningful proof. The possibility that such a proof might take the form of "tens of thousands" of pages in "several hundred" texts written by "100 authors" is not considered -- especially since it might require a high order of competence and patience by a team of people to verify such a proof.

Bridging: Curiously "belief" is expected of those according credibility to those who claim competence in one or other mode of knowing (James Bradley, *Two Ways of Knowing*, *Journal of the ACMS*, 2004). Many however find themselves obliged to live "between" such polarized modalities (*Living as an Imaginal Bridge between Worlds: global implications of "betwixt and between" and liminality*, 2011).

One challenge for mathematical theology is to inform the construction of such a bridge (*Geometry of Thinking for Sustainable Global Governance*, 2009).

"Enormous strategy"?: It is then not unreasonable to consider that the strategic challenge of intractable conflict and "saving the planet" could well require an "enormous strategy" -- with similar resources required to elaborate and verify any meaningful "proof" of its coherence and viability.

There is a degree of charm to the fact that the focus of such a strategy could well involve some psychosocial analogue to the "classification of finite simple groups". Those "groups" could then be the cognitively engendered entities which are embodied in set of

precepts, "models", organizations, their strategies, or the problems these address. Whereas computers are increasingly used in mathematical "proof", it is possible that they may be similarly required, through simulations, to provide a credibly comprehensible "proof" of the "enormous strategy" -- both for policy-makers and voters.

The coherence of any truly "enormous strategy" is liable to be beyond the comprehension of all but the few -- whose capacity and integrity would necessarily be disputed. More likely is the emergence of a range of "less enormous strategies", each comprehensible to some able to render it credible to a wider range of others. Each such strategy would in all probability be held to be incommensurable with others.

This pattern curiously replicates the faith in distinct deities. The emergence of strategies of even "less enormity", and greater comprehensibility, would then correspond to faith that some have in deities of lower order. Attention is required to the psychoactive engagement with sets of abstract principles as functional substitutes for "the divine" or "the sacred". This is reminiscent of the argument of [Charles B. Handy](#) (*Gods of Management: the changing work of organizations*, 2009) and of [Sallie McFague](#) (*Metaphorical Theology: models of God in religious language*, 1982).

Comprehending transcendence: The issue remains how any such complexity is to be comprehended by individuals as coherent and adequate to the challenge. The experiential dimensions of belief, variously essential to theology and mathematics, would appear to offer a key. Hence the proposal to focus on "mathematical theology". The issue is not merely one of the organization of knowledge. It also implies the psychoactive engagement with that knowledge -- transcending any singular mode of knowing.

At the time of writing, the cover of *The Economist* bears the simple expression "**Be Afraid**" at the centre of a vortex -- also the theme of its lead editorial (*Be Afraid: unless politicians act more boldly, the world economy will keep heading towards a black hole*, 1-7 October 2011). The argument is framed in terms of the possibility of a "big plan" to save the euro as a key element in saving the world economy. As discussed, the improbability of reaching agreement is reminiscent of the challenge above regarding a possible "enormous strategy" in response to the global problematic in its broader sense.

The nature of that psychosocial vortex merits more than oversimplistic reflection. This may be related to the widespread popularization of intuited concern regarding "2012" as a "singularity". This could call for a transcendence of the reactive focus on "terror" (*Thinking in Terror: refocusing the interreligious challenge from "Thinking after Terror"*, 2005).

It is in this sense that "mathematical theology" might be understood as corresponding to the subtitle of the study by Gregory Bateson with Mary Catherine Bateson (*Angels Fear: towards an epistemology of the sacred*, 1987). Given the above-mentioned creative insight offered by humour into what might otherwise be considered obscure, there is a certain charm to the fact that "theology" and "theorem" share an etymological root -- with "theo" embedded in "theorem". This offers an association to the traditional challenge of "awakening a sleeping god" -- "theo" in "**REM sleep**".

Enormousness of selfhood?: Despite the insights offered by science into the functioning of a human being, there remains the mystery of the sustaining process of life and the order it brings to the "management" of the myriad processes of individual existence. It could well be said that the integrative operations of the estimated 50-75 trillion cells (of [several hundred types](#)) in the human body must necessitate a corresponding "enormous theorem" far beyond normal human consciousness -- and possibly even commensurate with the [Monster Group](#), as the purported key to everything. The nature of this theorem might then be compared to the "classification of finite simple groups" of mathematics -- or to "man in the image" of God (as an "enormous theorem"). The implication of the evolving psychological integrity of the individual within that enormous theorem might be understood as the exploration undertaken by [Jennifer Gidley](#) (*The Evolution of Consciousness as a Planetary Imperative: an integration of integral views*, *Integral Review*, 2007).

As a "planetary imperative" the question is how then to explore further the "resonance" between these different forms of enormousness, if indeed they are then to be understood as fundamentally distinct (*Being the Universe: a metaphoric frontier*, 1999). This would seem to be a strategic key to engendering the transformative change required at this time (*Implication of Personal Despair in Planetary Despair*, 2010; *Cognitive Implications of Lifestyle Diseases of Rich and Poor: transforming personal entanglement with the natural environment*, 2010).

NB: References are provided in a separate document: [Bibliography of Relevance to Mathematical Theology](#)



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