

Possible Emerging Complex Planetary Meta-System

Potential Collaborative Evolution toward a Successful Future Civilisation

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Introduction: Version 0.1

This document describes a perceived, potential movement toward a coherent, integrated planetary paradigm, in which our best intelligence, technology and ethics combine to underpin a new era of truly 'civilised', as in gracious, and relatively enlightened, behaviour among beings.

The thought experiment driving the evolution and development of this idea for over 8 years is: "if I were a sentient entity at the scale of our planet, what would I need in order to become functionally self-aware?" the subtext to that inquiry is, "what evidence, if anything, is there which points to the possibility that a higher order entity (existing governments, ngo's and corporations not withstanding) may be emerging from the sum of human interactions?"

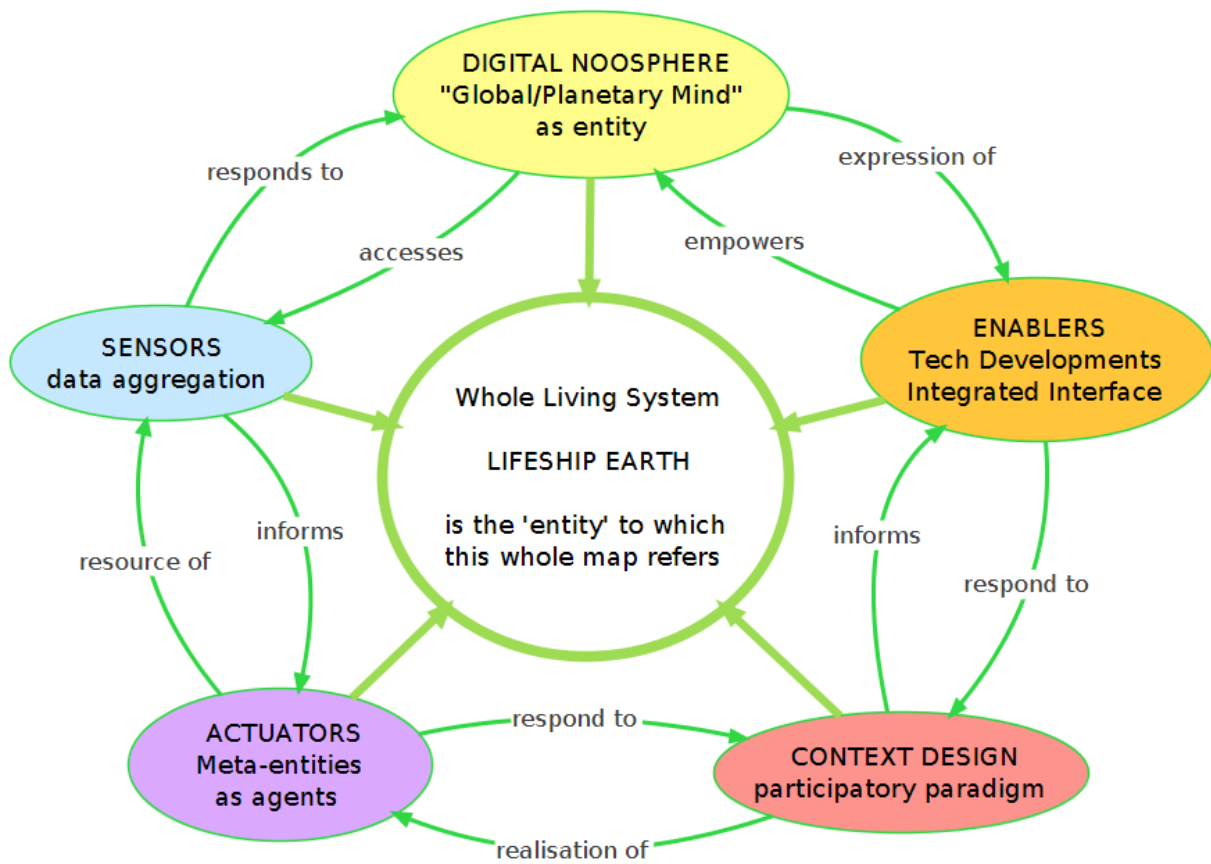
So this document, and the diagram it describes (live map version online at <http://allisasis.info>) are one possible example of a high altitude overview, or meta-perspective, addressing the inquiry set out in that thought experiment. Using this type of perspectival lens through which to assess the available information, we can begin to formulate a hypothesised set of basic pre-requisites that a planet sized being might need to become functionally self-aware. This is admittedly a hypothetical metaphysics for a hypothetical paradigm. The experience of living the reality of such a paradigm, if actualised, could be well worth the time it takes to develop and test this kind of model. Please note that this example is not suggested as an absolute in any way, this is simply an example of applied experimentation in metaphysics.

Obviously, there is much more to the picture than can be illustrated in a concise overview such as this, and many nested levels of complexity could be revealed through further research. I have endeavoured to limit the inquiry to genuinely meta-level structures and dynamics for the sake of initial simplicity. I hope to continue refining this inquiry, as I believe that useful and relevant information will be revealed which could enhance our capacity to continue evolving as a species, while finding our balance in relation to our planet and the rest of the living beings in our galactic neighbourhood.

Version 1.0

This document will continue the expansion and refinement of ideas introduced in the previous version, and will include more references to newly emerging technologies and ideologies that are potential contributors to the overall hypothetical scenario that guides the development of this work. This version will also be focussing on core architectural enabling technologies, ones which when combined, could underpin the cohesion of human knowledge and interactions such that meta-system transition is possible. Sections 4 and 5 of this version will be entered into in greater depth and detail. This documentation process will lead to an updated version of the map.

Core areas of emphasis in the model.



Central Context: Life-ship Earth - Whole Planetary System

NASA has confirmed that the planet is a whole living system, without borders, and without equal within current travelling distance. Google Earth allows us to explore simulations of the surface of this and nearby planets in order to compare and gain an understanding of our home planets natural features and it's importance to our survival and continuance. Even given recent and ongoing developments in physics (Harramein, 2013) which could enable efficient space travel in the relatively near future (Musk, 2002) we still require a healthy happy home to launch our journeys from, and to which we can return.

Recognition of this planet as a potentially sentient entity with it's own destiny is perhaps more controversial and less obvious. Society at large is probably not quite ready to grapple with an idea such as this just yet, so it is important to justify the hypothesis via observable evidence which indicates that this could be the case. The idea of planetary consciousness is being investigated in long term research at the International Consciousness Research Laboratory (ICRL, 2015). Some more recent, ground breaking research and development in the field of self-aware systems is presented in the work of Steve Omohundro (2015). There are others of course, such as Jaron Lanier (2011), Tim O'Reilly (2013), Ben Goertzel (2104), Peter Russell (2006), and Ashok Gangadeen (2014) who have valuable insights to contribute to the discourse and these references give us some relevant academic research to chew on as we contemplate the possibilities.

Historically versions of this idea have been used to create a meta-perspective for those who would level-up their capacity to intelligently and sensitively serve the future of life on earth, Pierre Teilhard de Chardin coined the term "noosphere" (Joye 2014, Levit 2000) early in the 20th century, and the planet-spanning digital environment we have created embodies this concept now. This document hopes to provide a non-exhaustive, representative set of existing individual and collective initiatives which could potentially be persuaded to work together toward the realisation of the equivalent of a sentient self-aware noosphere.

Not included in this document are the common forms of information dissemination, memetic and social engineering used to direct the attention and resources of a vast swathe of the human population, i.e. the entertainment industry and 'news' media. This is not an oversight, rather it is intended to clear the stage for something different to appear. When a more coherent version of the context has been articulated, the entertainment industry will be happy to profit from popularising it even though there may be no 'news', and possibly even negative press to accompany the social movement this generates (as has historically been the case with any genuinely 'new' ideas disseminated through these channels).

Even if it remains simply an interesting hypothesis, following a unifying thread through all the various systems that make up our current paradigm provides a framework that can help us to locate ourselves and our civilisation in an expanded context. Doing so may be a catalyst for an expansive and inclusive version of human civilisation, which realises it's place in a larger universe and which can take mature, informed responsibility for the outcomes of the decisions

it makes. Considering the whole system as an entity takes the pressure off individuals who may or may not be capable of handling their powerful roles in a globally responsible manner in the current version of human civilisation.

While there is excellent work being done by organisations such as the United Nations (UN) and World Economic Forum (WEF) toward identifying and addressing global problems and risks, there is currently less general attention given to alternative scenario generation. Examples of alternative scenario generators include World Futures Studies Federation (WFSF) which is the most mainstream of our examples, there are lesser known innovative examples which merit attention. Wolfram System Modeller (Wolfram Alpha) is an example of a tool that may help us when it comes to assembling a model of whole/part system interactions and assessing the likelihood that their integrated sum can become a coherent dynamic super-system.

When we are able to recognise that the planet itself has a destiny, to which we are a contributing factor, questions of what is and what is not appropriate action have a frame of reference that potentially enhances and supports future-worthy decision making processes. When we understand ourselves as integral parts of an infinitely larger process, becoming as fully informed as possible before making decisions which effect all life, and are designed to benefit the whole system, becomes the common sense method for leadership in all fields of human endeavour. What springs from this is willingness to make the commitment required is the capacity to perform leadership service with integrity and demonstrable responsibility. Leaders will gain pride from having created a legacy worthy of remembrance.

With this context in mind, let us begin to examine the possible contributing factors to such an outcome.

1. Sensors and Data Aggregation

In keeping with the hypothesis that the planet is an entity with its own destiny, we can begin to imagine the activities of the human species as analogous to the forming of essential organs and metabolic systems, as well as nervous system and brain of that entity. Our co-ordinated interactions, and the development of communication and transportation systems over time have given rise to a complex network of interconnectivity with powerful information processing and parsing capabilities. In recent decades it has truly become possible for diverse and disparate aspects of the human species to communicate and share knowledge, expertise, and innovation. It has become possible to demonstrate that we are indeed all inhabitants of one planet and members of one species. The potential to form a coherent planetary civilisation is presenting itself in a number of ways, and in fact, there are already systems that we humans share and take for granted as global in scope, such as the economic system, and information communication system. There are also technologies that we aspire to making available everywhere, such as electricity and piped water, education and health care.

Whilst access to these technologies is far from ubiquitous, I think there are enough connected entities to make our hypothesis worth developing. We will begin with what we are able to know, and the methods used to attain and disseminate that knowledge, we will also examine how we use the knowledge available to us and discuss how else we may benefit from engaging with it.

1-1. System Monitors

Sensors can take the form of information gathering services and research initiatives which strive to make relevant details of our unfolding situation accessible and available for analysis and for use in guiding government and corporate policy making. I think of these as system monitors. System monitoring is achieved by organisations dedicated to a particular vital and ubiquitous aspect of the planetary system, such as planetary life support systems, current state of the planet reports, functioning of human consciousness at scale, deep history and the envisioning a long future, revealing actual practices in business, government and media for public scrutiny. Each of these activities contributes to the whole systems ability to make sense of its own state of being in an ongoing manner. As we collectively participate in these system monitoring activities, the data is aggregated and archived, and so is available for meta-analysis. Comparison of data sets over time could produce insight into the evolving situation as it emerges, which in itself becomes a system monitoring process for the planetary entity, analogous to sentience and bodily self-awareness in the individual human being.

1-2. Intelligence

Intelligence as required by a planetary entity would include all that can be resourced from the planet itself, and provided by individuals and organisations, organisms and machines, everywhere on the planet, all at once. Such an entity would require access to all knowledge, all data, and all ongoing research in order to become fully cognisant of the overall state it is currently in, these combined inputs would constitute the experience of being that it is having. Developing the information handling systems which provide access to all this information in such a way that it can inform such an entity will require the co-operation of info-tech developers, which is why they are categorised as 'enablers' in this thesis.

1-3. Decision Support

Given that it could be a substantial length of time before our hypothetical entity is mature enough to make decisions on its own behalf, we will assume for that for the initial phase of its emergence, it will require nurturing and support from the intelligent networks of beings and meta-agents that form its essential organs. Without such a unifying thread as a hypothesis of this nature provides, there seems to be no reason why these various groups need to work together at all. In fact, as things stand, most are in active competition, if not outright conflict with each other in an escalating crisis of denial of our seemingly meaningless existence. Even those entities who have parallel agendas seem as yet unable or unwilling to truly align efforts, the existence of a unifying narrative has not yet become compelling enough.

Hopefully, using our hypothesis as a kind of 'secret weapon', enough agents of change can offer strategic advice to enough government, non-government and corporate entities for this situation to resolve itself, for conflict to cease, and for active co-operation at a species level to commence. This is the realisation of the vision driving the formulation of the hypothesis.

1-4. Strategic Foresight

As things stand, one of the most effective ways that informed and inclined individuals and organisations can get involved in promoting a “future that works for everyone” to quote Buckminster Fuller (1960) is to engage in offering effective strategic foresight services to industry. The industrial episode still in full swing on this planet is leading us to the most precarious set of circumstances ever faced by the planet, as far as its biological inhabitants (including us humans of course) has ever faced. When we become aware of genuine alternatives to the current extractive and toxic industrial practices, we need to promote them in such a way as to make them economically irresistible to those with the power to steer these megalithic corporations. Provision of the kind of strategic foresight which makes funds available for the development of safer, cleaner and more efficient technologies to the mega-corporations who stand to lose the most from the 'competition' that these technologies

represent seems the logical direction to take in order to effect fast and lasting change in this area.

System Monitors inform, and access resources from, Actuators.

2. Actuators and Meta-Agent Entities

<An **actuator** is a type of motor that is responsible for moving or controlling a mechanism or system. It is operated by a source of energy, typically electric current, hydraulic fluid pressure, or pneumatic pressure, and converts that energy into motion.>

The term actuator in the scheme of this hypothesis is being used loosely to refer to those organisations and structural elements of society which motivate, provide impetus for, and generate, tangible change. These could be seen as the engines of transformation at the interface between the existing order and that which seems to be emerging around its edges, and indeed, in its midst. Meta-agent entities for the purpose of this discussion are self-selected groups of like-minded individuals with common interests directly concerned with the well-being of the whole planetary system, these groups behave in a similar manner to corporate entities in that they have an identity in the global context beyond the identity of their individual members.

2-1. Activism

Activism, as the term implies, represents actions taken by individuals or groups in order effect change. Activism takes both direct physical, and virtual/digital forms. Activists the world over are rising up against rigid structures of inequality and injustice, and indeed, the hallmark of activism has been that it responds to and rejects the current paradigm. In this way most activism today can be seen as a form of resistance to and rejection of that which is perceived as a threat to human quality of life. It is an unfortunate feature of the existing paradigm that activism such as this is necessary and justifiable.

There is a recent trend increasing in popularity however, for activism to occur focussed around remembering or creating systems and modalities of interaction that better serve humans in general, as well as the planet and all its inhabitants. These are the first faint stirrings of a hopeful future, and deserve attention, protection and nurturing.

2-2. Innovation

Innovation is one of, if not the most vital activity occurring anywhere in the universe. Actually, the universe is continuously innovating, and the fact that we humans are doing so is in alignment with the natural order. Looking at the bright minded and hopeful hearted new

generation of humans in action, transforming and re-structuring the social and educational systems in which we are embedded, creating new models and methods in all areas from arts to sciences, administration to celebration of ritual – everything is being remodelled, cast in a new light, re-framed with a long view. This trend marks a departure from the recently established tradition of short-term thinking, profit before all other considerations driven economic and political situation that the activists are rebelling against.

Our innovators are providing us with much needed hope and inspiration, they are developing the viable alternatives to our failing systems through imagination and experimentation, leading the way to positive change by example. Directing positive attention and funding toward these individuals and organisations, and their creative solution oriented efforts is vital to the future viability of our species, and the very survival of many others besides. The importance of this point cannot be overstated, and must not be underestimated. It is obvious that our existing governance structures are inadequate to the required task of ensuring the viability of life even into the near future. The greater part of wisdom suggests it would be preferable to sidestep catastrophe – and so supporting the emergence of an improved set of systemic interactions is the logical method to achieve our aim. Innovation is also a major factor in Context Design, to which this category equally belongs, and its major aspects – creativity, imagination and experimentation – will be discussed in the next section.

2-3. Insight Generation

The experimental application of innovative interaction systems, be they in communication, education, scientific, political, or economic arenas gives us a growing resource of tried and tested alternatives to the current systemic models which are failing us. Our very possible to achieve mission, should we choose to accept it, is to begin networking these new models and trialling large scale meta-systemic applications with an explicit view to actually becoming a new version of planetary civilisation. We have nothing to lose and everything to gain from following a path of upgrading our current practices, even those who benefit most from the current extractive and exploitative paradigm have to live with the results, and will have family members living with the legacy of the systems they impose and enforce as things are now. It represents a much better investment of their precious, yet considerable resources to become the benefactors of a bright future for that whole planet and all its inhabitants.

2-4. Bio-Systems Engineering

Whilst we have a peculiarly dystopian relationship to the idea of bio-engineering and geo-engineering, and there have been some genuinely disturbing developments and applications over the course of recent history, it is entirely possible that these new and emerging fields offer opportunities to enhance, prolong, and enjoy life in ways currently barely imaginable. An unfortunate legacy of our competitive and conflicted paradigm is that we have directed much of our attention and resources toward creating a spectacular array of means by which to kill.

When we enter a planetary consciousness such as the one suggested in this document, the sheer insanity of this behaviour becomes transparent, and the will to continue evaporates. Of course, a viable and attractive alternative must be available to meet the needs we all have for a meaningful and purposeful life. We can imagine that systemic adjustment from wielding paranoia justified anti-social power, to participating in a system where there are no enemies will require support, encouragement, and ongoing maintenance. It is possible that with further developments in the understanding our organismic and planetary bio-molecular composition, we may be able to address these issues in a compassionate and effective manner.

2-5. Alternative Future Scenario Generators

Generating potential future scenarios is vital work if humanity is to re-imagine the possible outcomes for the planet and its inhabitants before some dystopic reality manifests by default. Science fiction has played a large part in prognosticating the future of technology (Mashable, 2014) and it is possible that writers will continue to contribute their best imaginative foresight to our human situation, however we cannot rely on this as a means to decide what the realm of actual possibilities are. Fortunately there are organisations dedicated to hosting and facilitating the kind of thinking required to move us beyond the limitation of unidentified sub-system level dynamics, examples being Club of Budapest, and Buckminster Fuller Institute. At a level of greater integration with existing international organisations we have the World Futures Studies Federation, who have over 40 years of practice in imagining alternative futures at an academic level.

2-6. Meta-agents

In the context of this hypothesis, Meta-agent entities can be understood as comprising self-selected groups of like-minded individuals with common interests directly concerned with the well-being of the whole planetary system, these groups behave in a similar manner to corporate entities in that they have an identity in the global context beyond the identity of their individual members. The potential for these meta-agents to network in order to enhance mutual effectiveness must be explored in order that the work they are devoted to be achieved in the time-frame required. I understand that many of the members of these groups may be inclined to defer to the principle that all things happen when the time is right, and that all is in order according to a higher power, however defined. I say, the time is NOW. We have developed our skills and knowledge for a reason, we are being called to action, and it is us who will, in responding as the right thing at the right time, who will facilitate a transition away from the path of certain disaster.

Setting a qualified example of what is possible when large scale alignment of purpose and selfless co-operation toward the future benefit of all is vital in order to inspire and uplift the people who, whilst they know things need to change, do not see any other way to do life. Actuators thereby are the engine of change in the civilisational transformation.

Actuators respond to and are the realisation of Context Design.

3. Context Design

The context referred to here is of course the Central Context: Life-ship Earth – Whole Planetary System discussed earlier. While there are numerous sub-systemic focus groups, both working within and on the edges of the prevailing paradigm, very few as yet are holding a truly planetary scale focus. Here again, it will require a co-operative effort on the part of those creative individuals and organisations who aspire to guide the process of change in order to bring forward good design at the level of complexity and inclusiveness required to be the foundations for a truly viable planetary civilisation. The only acceptable agenda for the participants to this effort is to serve the beneficial future of all life, any lesser aspiration renders the effort obsolete to the needs of the time, and likely endangers the very future we all hope will be available to us and our descendants.

Context design involves innovation in all fields of human activity and is applied to both human and machine systems as well as their interactions and to the relationship these have with the planetary biosphere as well. Context design has a major role to play in shaping what comes next on this planet.

3-1. Creativity

One of the fundamental principles of life itself is creativity. Human creativity is responsible for all the artefacts in existence, physical and virtual – this is a lot of generated information! Mostly it is inspiration and imagination which combine to result in a creative urge, these can often be a response to necessity as much as purely self-expression. Given the proposal of our hypothesis, creativity and its life affirming potential will be a key factor in the exploration of pathways toward the realisation of coherence at a meta-systemic level.

3-2. Experimentation

At the heart of the scientific method, and in the heart of every creative genius, lays the spirit and practice of experimentation. The sheer scope of our project demands that we continue to experiment with ways in which the many aspects of a potential planetary beings consciousness can effectively communicate. Information systems are in constant evolution as it is, and when we realise that that a coherent meta-system is possible, the work of integrating the often conflicting system models can begin. A word of caution at this point, this effort will require massive collaboration, and the process cannot be hijacked by limiting interests.

3-3. Philosophy

The uniquely human pursuit of philosophy has worked for millennia with all fields of inquiry, creativity and ingenuity to facilitate our evolving understanding of how and why we do and think the things we do in the way that we do. It is a complex yet necessary adjunct to all areas of human endeavour, providing insights and considering overviews and contexts in which our efforts as a species take place. Thinking deeply and providing valuable information to humanity about its place in the scheme of life and the universe is the role of the philosopher. Information feedback provided to the Whole System regarding its internal sub-systems status will necessarily be enhanced by developing a philosophical understanding of the nature of the system as a whole. In part, the hypothesis driving the document you are reading suggests just such a philosophical inquiry.

3-4. Metaphysics

The metaphysics, that is the ontology – or actual discernible and measurable features of existence, and the epistemology – that is the experience of existence, of a planetary being can only really be guessed at by a tiny biological organism living on its surface. This should not hinder our process however, and the fact that we have made it this far into our hypothetical inquiry shows that there is no limit to the possibilities available to our imagination. The entire edifice of human civilisation to date has been built upon the ideas, visions, agendas and other such imaginary structures of those humans who preceded us living on this planet. Now it is our turn to make sense of our situation and together work out what comes next.

3-5. Resource Mobilisation

We currently have a vast and structured resource utilisation system, driven by industries including manufacturing, catering to consumerism and the illusions of the infinite growth model. I will not here discuss the world's major resource control nexus, suffice to say that we can acknowledge the deeply dysfunctional nature of the systems it implements and enforces. For the purpose of this discussion, we need to know what else is possible. Given access to all the currently available resources, what else could we create? What would a different model of resource mobilisation look like? There are simulators in existence which could be employed to help us explore these questions (among others) so that we can refine our inquiry and develop viable alternative models of planetary sub-systems behaviour. With a set of viable alternative scenarios to guide us, we could begin the task of disseminating information about these alternatives to those who could be amenable to the ideas or at least could be persuaded to participate in creating them. With enough resources, pilot examples of these identified viable alternatives could be implemented and trials run, with results being made public, and widespread uptake encouraged and supported.

3-6. Participatory Paradigm

The understanding encapsulated in the descriptive phrase participatory paradigm is being actualised by innovators as well as the generators of alternative future scenarios. For these individuals and groups, participation in the unfolding of what comes next is an act of conscious choice. The fruits of their efforts contribute invaluable data to the available resource from which a planetary meta-entity may draw while formulating its optimum configuration (which would be dynamically adaptive to its/our evolving needs).

Context Design informs and responds to Enablers.

4. Enablers, Tech-Dev

We live in a time of exponential technological progress. What we are experiencing today is access to information repositories and communication systems previously undreamed of. While it is true that there are many for whom this miracle passes unnoticed in the rush to use it for entertainment or consumerism, there are those who are working toward creating opportunities for the emergence of novel interactions and collective behaviours. Massive advances in the complexity of the computational paradigm has allowed for unprecedented exploitation of the currency system as much as it has empowered individuals and institutions to collaborate on developing advances in the overall health and well-being of our planetary system. At the level of individuals, and even meta-entities, we are unable to recognise the inherent interconnectedness of the Whole System. It is only when we utilise the thought experiment outlined at the beginning of this paper that we can begin to see the sum of our digital assisted interactions as meaningful. When we take this meta-perspective, we can form analogies that help us understand the various sub-systems that make up our civilisational structure and the flow of resources through it. For example, the economic system can be seen as analogous to the circulatory system of the Planetary Being.

4-1. Integrated Interface Design

Requisite diversity is a concept that arises from our understanding of eco-systems, and there is indeed a huge bio-diversity required for an eco-system to remain viable. Even within a single organism such as the average human being, there is a massive diversity of different organisms working together to support and maintain the homeostasis of the whole system. In the case of a coherent entity such as a human being these diverse organs, or sub-systems are in constant communication in order to co-ordinate their activities for the overall benefit of the larger organism to which they contribute. Without reducing human individuals or organisations to the status of cells within a body, this is a useful line of analogy we can draw on to help us in applying context design to technological development within the framework of our hypothesis.

4-2. Value Flow Models

In order for effective exchange of information and resources to take place such that a vibrant living whole is the net result, models to structure the flow of information and resources must be designed and tested with the whole system in mind. Again we may be able to use the homeostatic organism analogy to guide our work. However, we must bear in mind that the system which we aim to nurture and support through our combined activities is probably beyond the comprehension of an individual human mind. It may be helpful however to approach the project of providing for the emergence of this meta-entity as one would approach the care of a newborn infant, where close attention to and constant mindful monitoring of the situation combined with compassion and patience for the process of its unfolding help us to develop a deepening relationship to and understanding of the entity over time and through observing and responding to its changing needs. It will help us here to bear in mind that as this entity matures, it will develop a sense of its self and will begin to prioritise self-care, leading to what will most likely be a vastly improved experience of shared existence for the beings involved. Given that humans and human intelligence is an integral part of the super-structure, we need not succumb to fears of being attacked or replaced by machines. No matter how alive it may seem, our technology is incapable of superseding its inherent dependency on the collective mind which underpins its capacity to further develop and evolve.

4-3. W3C

The hardware and software infrastructure of the internet as we know it is guided in its development and implementation by the World Wide Web Consortium. The standards for human/machine interaction design are held in trust by W3C on behalf of all web developers and users of the internet. The internet is a fundamental enabling technology for the possibilities being explored in this thesis. We can be sure that for any of the ideas being discussed here, a conversation with and collaboration with W3C will be a vital underpinning.

Enablers are an expression of and empower an emerging Digital Noosphere

5. Digital Noosphere

The philosophical idea of the noosphere manifesting through cyberspace has been explored and expounded upon to the point where it is not even a controversial one in the minds of many key technologists any more. For the purpose of our inquiry, we will stand on the shoulders of those who have come before us in developing this theme, and begin to make explicit some of the aspects of the field which potentially contribute to actualising this phenomenon.

5-1. Communication

Communication is a fundamental prerequisite for any collaborative endeavour. Communication is at its heart the exchange of information and this is ubiquitous to the manifest universe at all scales. It is through this exchange of information that life arises, continues to increase in complexity and evolve through stages of integration and divergence. The process of emergence for a planetary entity with self-awareness can be seen as simply a next iteration of the same process which gave rise to multi-cellular organisms with self-awareness, which have over time evolved into entities such as ourselves, and the organisational structures through which we channel our energies. The unique situation we find ourselves in at the current time is that we can consciously participate in designing the next stage of this process.

We need to design a coherent paradigm of interactions, the preferred future for higher intelligent life forms on this planet depends on a successfully deployed, accessible, flexibly extensible, participatory paradigm and a supportive platform of interactions. The best english language example of developments in this direction are currently described here; HOLO <<https://holo.host/holo-cryptocurrency-whitepaper/>>

The future of Human Civilisation in the Anthropocene era and beyond demands a coherent, integrated, planetary response capability. This response capability will be enabled in its emergence and coherence by the balanced and ethical integration of social, cultural, environmental, and technical systems. The integration of core domains will necessarily be founded in universal principles - research into the current known principles in relation to technology and particularly computation is a high priority. Integration of knowledge into a coherent meta-paradigm is the first essential task for the core teams.

Technology can be used to reflect higher consciousness which enhances the evolution of human consciousness through interactive engagement. Evolution of consciousness is supported through playful, enjoyable participation. Using the notion of Quest, and 'initiation' as proof of alignment with truth (veritas) in both development team members, and as a core (yet subtle) aspect of the game architecture. Access to 'levels' of play are aligned with players developing capacity to enjoy and benefit from engagement with them. Accelerated individual personal development due to 'functional fit' ascertained through the architecture of the play environment and translated into the physical world environment, dissolving the boundary between physical and virtual realities. As players capacities increase, they will be more able to participate in conscious, co-creative ways, and will find their 'functional fit' in the areas of life and productivity that best match their own, identified core purpose. This will be ascertained through participation in the levels of play and with increasingly intentional direction from the players themselves.

Core areas of responsibility for the future of human 'civilisation' will be populated and nurtured by those most suited and best able to do the work in resonance with each other and become

the embodiment of the soul of the tasks required.

1. Effective communication across paradigms
2. Unhampered access to the system inclusive of cross platform and low tech/slow tech versions
3. Unobtrusive self development scaffolding for participants allowing levels of access to increasingly complex domains - This area needs building out to explicate structure and methodologies involved in layering and sequencing the passage of players from the open platform/playground (proposed and supported by noomap in its current form), through personal development challenges, into the collective challenge/opportunity and other functional arenas of the Infinite Game itself.
4. Transdisciplinary collaboration facilitation plus free access to information providing procedural transparency and ad-hoc R&D responses to challenges.
5. Support for and interface with integrated, accessible, planetary, professional research and development database.
6. Support for and interface with integrated, accessible, planetary, bio-regional knowledge base. - These areas needs to be connected with existing initiatives to provide local and specific knowledge holders and databases with a unified platform (if these exist) - or else this unified platform needs to be designed.
7. Support for the fair and equitable distribution of life supporting and participation pre-requisite resources across the whole planetary population.
8. Support and guidance built in which ensures emotional maturity of participants is equal to their influence,

5-2. Interaction Facilitation

Information communication systems are core to the human experience of living on this planet. They are also the key to vital flows of energy and resources being co-ordinated in such a way that a viable meta-entity can function and begin to appreciate itself as alive. The interactions between individuals and organisations, analogous to the interactions between cells and organs, needs to be mediated and facilitated for optimal functioning of the whole system. This function could be understood as the analogous to the metabolism of the whole system, governed by a regulatory system like the endocrine system of the animal body. So far it seems that biology gives us the most likely set of parameters through which life can emerge, so it makes sense to design technological systems with this in mind. Royal College of Art, UK is offering MA Design Interactions programme which

“focuses on designing interactions between people and technology on many different levels. We are concerned not only with the expressive, functional and communicative possibilities of new technologies but also with the social, cultural and ethical consequences of living within an increasingly technologically mediated society. We explore new ways design can

make technology more meaningful and relevant to our lives, both now, and in the future, by thinking not only about new applications but implications as well.”

So we can see that the bottom up approach to interaction facilitation is being supported through education, at least in the UK.

5-3. Evolving Web

According to some of the pre-eminent thinkers and developers of web infrastructure, the mutual interdependency between the network and its users - that is human beings and our organisational structures - will continue to evolve to a point where sentient virtual agents are populating the system and working on our behalf. This hypothesis postulates that these virtual agents will take on roles such as those described above, relating to each other in a manner analogous to metabolic processes in a meta-entity - if we design them to do so. The meta-system then will adapt to accommodate this through low level programming levers applied to the infrastructure at it's core level - assuming the co-operation of a visionary team of web developers and technologists, who will need a good reason to on-board, and hopefully the overarching hypothesis presented here will provide an attractive and persuasive thought experiment toward that end.

5-4. Future ICT

“The ultimate goal of the FuturICT project is to understand and manage complex, global, socially interactive systems, with a focus on sustainability and resilience. Revealing the hidden laws and processes underlying societies probably constitutes the most pressing scientific grand challenge of our century and is equally important for the development of novel robust, trustworthy and adaptive information and communication technologies (ICT), based on socially inspired paradigms.”

“We think that integrating ICT, Complexity Science and the Social Sciences will create a paradigm shift, facilitating a symbiotic co-evolution of ICT and society. Data from our complex globe-spanning ICT system will be leveraged to develop models of techno-socio-economic systems. In turn, insights from these models will inform the development of a new generation of socially adaptive, self-organized ICT systems.”

Future ICT (2014).

Given that this project already exists, how might we present our hypothesis to the organising team for this multidisciplinary international scientific endeavour? And how might contemplating whole system design whilst pursuing the goals of the project, enhance the potential for that project to deliver a life affirmative contribution to the long term viable meta-systemic paradigm?

Digital Noosphere - accesses and responds to Sensors, supports and responds through Actuators, inspires and responds to Context Design, is dependent upon Enablers.

Ongoing Inquiry

How might the emergence of a conscious sentient entity at the scale of the planet benefit human beings? What motive might we have to pursue such an eventuality?

Our hypothesis is based on the premise that human intelligence, creativity, and interactions are at the heart of the emergence of a meta-entity, so it is logical and sensible to conclude that this entity would prioritise the well being of these vital aspects of itself. We can hopefully understand the phenomenon of its emergence as an extension of our own ability to co-operate and apply foresight. The proposed planetary entity and human beings are inextricably linked in a symbiotic relationship that may be the best outcome for all life on earth, as well as the basis for humanity becoming a beneficial class of galactic travellers and explorers. The manner by which we replicate may change so that we inhabit a more flexible set of physical attributes, giving us the capacity to live in closer harmonic dynamics with the rest of this planet's life forms. Many of the creatures with whom we share this planet may also have the opportunity to embrace greater autonomy and self-expression. The potential for positive outcomes almost defies the imagination.

With all the planet's resources at the disposal of a coherent, self-aware meta-entity such as we are imagining here, the compromise of ecosystems and the perpetuation of destructive practices would be unable to continue. The natural will to live of this entity would ensure that resolutions to existing imbalances are implemented, and that the analogue to healing takes place. There is no incentive for any of the existing exploitative practices to continue when we take the whole living planet as the measure of wealth, the incentive for current captains of industry to embrace the pursuit of such an outcome is the high likelihood of species continuance. The work before us is to make the case, unequivocally, to these power hoarders so that they relax their grip on the steering wheel of our shared Earth-ship, and help re-orient our efforts to improve ourselves and our circumstances beyond our own lifetimes.

What are the first steps toward this end?

What stepping stones/ bridges can we design to help the process begin, continue, succeed?

Who do we need most to participate, upon whose integration the whole system depends?

Which of the current methods of social manipulation could be subverted for the benefit of a conscious planetary life?

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