

Imagineering @ the confluence of Art & Technology

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Abstract & Framing

This paper explores Art and Technology as two complementary flavors and constitutive dimensions of creativity as an ontological primary, whose product is called the *Technium* and process called *Imagineering*. The dichotomy between intrinsic value (usually ascribed to Art) and instrumental value (usually ascribed to Technology) is examined and qualified. The evolutionary texture of Imagineering is traced from subjective prehension to the objective manifestation in the Technium through a reticular dynamic. The purposive choices for Imagineering are seen to be best shaped by a *Values Trialectic*, whose liberating power can be most fruitfully deployed in whole-personality integration at the level of the individual, and intelligent orchestration at the various scale-clusters of planetary society.

There are various ways one can understand and depict ultimate reality, and this quest has been the central theme of metaphysics, the starting point of philosophical discourse. I tend to resonate most with English mathematician-philosopher Alfred North Whitehead, that creativity, not God, is the ultimate reality:

1. God is real, but not more real than the many entities in the world
2. The World is real, but not more real than God
3. Both God and World are actualizations of creativity

God may be considered the ultimate actuality, while creativity is the ultimate reality - "the universal of universals characterizing ultimate matters of fact." Creativity manifests everywhere, consciously or subconsciously, as the bringing forth of the new in relational immediacy and combinatorial splendor with what is and can become.

Creativity as a verb can be seen as Imagineering – which is a sequential process of intuiting the imaginal potentiality of the new, and engineering the actualization of that potential through concrete craftsmanship. We call the first part 'Art' in its widest sense, the second part 'Technology'; both embody the aspiration to make things better. Imaginal Art that envisions a future (that does not yet exist) and Technology as a resource liberating mechanism (that brings that future into iterative existence) is and has been the most potent combination of exoteric improvement of the human condition. Together, they constitute a whole, self-generating system of creation which Kevin Kelly, the founding editor of 'Wired', calls the Technium. The Technium is not just a collection of artefacts, but also a form of human action, an instrument of knowledge, and a social phenomenon. As the Spanish essayist José Ortega y Gasset shows, without Technology there is no human being; as Homo Faber, humans (try to) create a world to be at ease in.

'The ultimate in creativity is the creativity that creates new perceptions of reality and new visions of the world. It transcends and is more fundamental than any particular form of art. It is the highest expression of the human imagination. The challenge of change that we face today calls for such imagination.' ~ Yasuhiko Kimura, Japanese-American philosopher-consultant.

Intrinsic versus Instrumental

At the first blush it may appear that Art has only intrinsic value and Technology only instrumental value. We hear the phrase 'Art for Art's sake' often; and we find it difficult to think of Technology as anything other than a means to an end. However when seen from the vantage point of two facets of creativity, we realize that each begets the other in an ongoing dance of ends and means; the ends of one cycle become the means of the next, as the actuality of one cycle becomes the potentiality of the next. The usually dry, mechanistic conception of Technology is animated by the aesthetic vitality of artistry, while the pursuit of beauty initially unfettered by practical considerations receives an unexpectedly sweeter fillip when it serves an often adventitious purpose.

Some technological form-factors serve as complementary cognitive artefacts. It has been shown that such artefacts have the capacity of restructuring of brain chemistry and neural pathways and wiring to make them more functional, agile and versatile. An abacus is an example of a complementary cognitive artefact that not only enhances arithmetic capacity but also geometric and linguistic competence. Similarly, creating and/or using maps help not just in navigation but enhances other brain functions such as connective awareness, representational thinking, course correction agility etc. which have wider implications beyond the immediate navigation maneuver. As American Professor and social scientist Sherry Turkle, confirms, Technology catalyzes changes not only in what we do but in how we think.

In the German philosopher Friedrich Schelling's search for a new Alchemy, the aesthetic intuition is used to apprehend the ideas of things, and the consequent crafting expressions of those ideas gradually resonantly modify the ideas themselves.

R. Buckminster Fuller, designer and futurist, whose work was at the intersection of form and function, admitted: 'When I am working on a problem I never think about beauty….but when I have finished, if the solution is not beautiful, I know it is wrong.'

Antoine de Saint-Exupery, poet and aviator, observed: 'Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away.'

Christopher Alexander, architect and father of the pattern language movement, wrote: 'There is a central quality which is the root criterion of life and spirit in a man, a town, a building or a wilderness. This quality is objective and precise, but it cannot be named....the search which we make

for this quality, in our own lives, is the central search for any person, and the crux of any individual person's story. It is the search for those moments and situations when we are most alive.' For Alexander, living architecture is self-generative or autopoietic – *poiesis* being Greek for 'make'.

The Dutch philosopher Baruch Spinoza suggests that 'We desire nothing because it is good, but it is good only because we desire it.'

The real combinatorial power of the Technium is not merely in the artefacts produced through the creative endeavor, but the heightened experience and psycho-energetic activation of the viewers and users of the artefacts (including the Hegelian 'sensuous expression to free spirit'). These experience-activations can be of pure enjoyment and phenomenological fulfilment (passive) and/or of subsequent novel re-imaginings of new artefacts and actualizations (active). This is my redefinition of the *Transcendental Aesthetic*, wherein intrinsic value and instrumental value are not seen to be at zero-sum loggerheads but in a fecund, spiraling embrace that improves and elucidates the visible with the help of the invisible.

However, as the Spanish-American philosopher George Santayana observes, every real pleasure is in one sense 'disinterested' (distinct from 'uninterested') in that when we seek imaginative-aesthetic pleasures we have no further pleasures in mind; that we do not mix up the satisfactions of vanity and proprietorship with the delight of creative contemplation. 'The unselfish man is he whose nature has a more universal direction, whose interests are more widely diffused.' The highest form of Imagineering is never merely self-seeking, and flows from a cup which is full. Intrinsic usually precedes instrumental, but is not aloof of it.

The Subjective-Objective Move towards Reality Prehension-Actualization

As Ayn Rand, founder of Objectivism, succinctly defines, Art is the selective recreation of reality based on the artist's metaphysical value judgments. The subject reveals the artist's metaphysics (read of reality), the style reveals his psycho-epistemology (method of the reading). The choice of subject declares what aspects of reality the artist values– as worthy of being contemplated upon and recreated/ re-presented. The style is a projection of his cognitive-emotional apparatus – its efficacy/impotence, its method, level and clarity of functioning.

The discerning viewer can make a choice to parse the subject from the style and thus derive some benefit from the artwork. There are artists whose metaphysics does not resonate with me, yet I can enjoy the artwork from the aesthetic / stylistic standpoint. And then there are those whose style frustrates me and yet I can unearth some jewels from their metaphysical value-judgments, even if these are half-felt intuitions or some glimmers of insight. In that sense I selectively recreate my reality based on *my* values from the artwork which is the artist's recreation of reality based on *his* values. Taken together across a social population, this generates a reticular structure of re-creativity.

Aesthetic consciousness, then, can be seen as the faculty of man's prehension and appreciation of certain values (not all, as we shall see); his Imagineering impulse arises from that integrated manifold of values which he embodies and wishes to see in the world.

As man's consciousness evolves, he becomes increasingly amenable to greater, subtler and normally invisible facets of reality being revealed to him. One way Whitehead defines evolution is 'the increase in the capacity to experience what is intrinsically valuable.' These deeper unveilings or unfoldments are experienced by him subjectively, and he may be called to express or concretize these in various creative forms. This is not the whim-based, fantasy-driven kind of subjectivity but an embodied connection in the intermediate zone between the known and the unknown, which the French theologian Henri Corbin terms as the *mundus imaginalis*.

'….the rise of consciousness thus signify a constant removal of the boundary between representation and reality at the cost of the transcendental part of the world, and in favor of the perceived part.' ~ Claude Fayette Bragdon, American designer-architect.

Just as Art (like language) is a medium/method of symbolic communication for the artist, it is also an exogenous instrument of perception for the viewer(s). The extent of aesthetic/ semiotic resonance between the artist and the viewer is, however, also dependent on the latter's vibrational station of being, i.e. the evolution of the viewer's consciousness.

'The eyes can only see what the mind is prepared to comprehend.' ~ Henri Bergson, Continental philosopher.

In general, the deeper the unveiled truth concretized by the art form, the fewer likely viewers who will 'get it', at least initially. Over time, however, evolution's telos acts as an enfoldment attractor to widen the field of inner resonance and embodied understanding (can be termed *innerstanding*). A time comes when social subjectivity (in the Kantian sense) reaches a critical mass and the truths begin to be considered 'objective'.

'The measure in which science falls short of art is the measure in which it is incomplete as science.' ~ J.W.N Sullivan, British literary journalist.

For human society, then, such an ever-deepening subjectivism journey *of a few* includes both a departure from and return to objectivism *for many* in sequential time, through which greater and finer vistas of reality begin to enter the 'public domain' and the objective Technium becomes progressively larger . But the leading-edge is always an initial slender minority (or just one). This leading-edge challenges, surmounts and transcends existing socially accepted enframings (in the Heideggerian sense) and propel newer, richer and more multivalent frames. The leading-edge frames, but is not enframed.

Subjectivism is no longer divorced from reality, and objectivism no longer divorced from (independent of) consciousness. In a future of ubiquitous creativity, an increasing number of people will constitute that initial slender minority in their uniquely subjective truth quests, who will then enfold others into his unfoldments, whilst being voluntarily enfolded in others' unfoldments, through aesthetic-communicative efficacy. A few billion flowers will bloom in the omni-aesthetic creative canvas in an emergent, reticular cadence of unfoldment-enfoldment.

This same cadence can be witnessed in technological breakthroughs pioneered by visionaries based on their singular, heightened sense of possibility which others cannot see. It is a popular hypothesis that if Apple depended on opinion aggregation from consumer surveys, the tablet would never have materialized. Most Apple products tapped into and fulfilled latent demand which consumers had no conscious cognizance of, until they beheld the finished product of the designer's Imagineering in their hands.

The universality of creative judgment, understood in its larger meaning as a prehensive unification of values, is stratified rather than monolithic; and emergent among co-resonant 'judges' in their respective strata of aesthetic consciousness rather than a morally stipulated one. In a free market of creative ideas and their manifestation, both authenticity (depth) and legitimacy (width) are vindicated by stratified networks of appreciation and commerce that are animated by vertical, horizontal and diagonal energy-information-currency flows. Greater and greater vistas of reality (i.e. *all that is)*, are thus accessed and actualized through the prehensive-creative instrumentation of Imagineers. *The Technium continues to evolve*, in a generally inevitable direction with characteristics described later in this paper.

Tensional Integrity through a Values Trialectic

The pursuit of values can be seen to be constituted of two more dimensions in addition to the aesthetic (what is beautiful) - namely the normative (what is good) and the veridical (what is true). Beauty, goodness and truth can be seen as three value spheres (term used by Max Weber), three domains of reason (as Neo-Kantians would refer as aesthetic-expressive, practical and pure, respectively), three dynamic images of the supreme reality (described by Sri Aurobindo), three major food groups of spiritual nutrition (phrase used by Steve McIntosh), three ornaments of spiritual marriage (quoted by Evelyn Underhill). We can refer to them as the three primordial evolutionary attractors that serve as the Pole stars for the directional enrichment of the human station.

Historians claim that the Enlightenment in the 17th-18th century effected a differentiation of three attractors from a hitherto fused state wherein religious belief held sway. This is largely correct because the State became independent of the Church in the Western world to guide morality (albeit with chequered success), the Knowledge enterprise led by Science freed itself from the vice-grip of ecclesiastical sanction to pursue truth on its own terms, and Art flourished on its own accord sustaining the momentum of the Renaissance.

However, the differentiation has been imbalanced, because the scientific-industrial worldview has largely held sway in the zeitgeist of human thought and action. This worldview has been mostly materialist in its techno-economic moorings, resulting in unprecedented improvement of the exoteric condition of humanity as measured by wealth, longevity, ease of life etc. However, this improvement has come at a cost of a general disenchantment of man from his experiential connection with nature and spirit. The Scientific enterprise has in large measure been co-opted by the politico-economic institutions where the instrumental value denomination has been one-sided and skewed. Morality and Art as enterprises do not seem to have the same standing and valuation as the Science-Business enterprise, assessed in intrinsic and instrumental criteria of appeal and impact.

While the three types of external institutions accomplish genuine differentiation, this differentiation ought not to result in dissociation or suppressive domination. For that, the internal pursuit-responses to the three evolutionary attractors require synergistic integrity. Beauty pursued without veridical and ethical balances or cross-verifications can become idealistic utopianism, petty sentimentalism, vainglorious narcissism or wasteful resource sinks. Morality divorced from finer individual truth intuitions, aesthetic testimony and empirical validation can be a soul-cramping conspiracy of mediocrity (a la Nietzsche). Truth pursued without consideration of its moral and emotional implications may become insensitive, mechanical and dehumanizing, leading to devitalization of life as already evident in our civilization as mentioned above.

What is needed as a configuration of tension between the three attractors that serve as a check-and-balance system of evolutionary forces; a Trialectic of values. The tensional integrity arising therefrom is the result of a simultaneous interplay of mutual support as well as mutual confrontation that impel and regulate the human value prehension and creation drive. Intuitions can be a higher form of intelligence than purely cognitive reasoning, yet it can also be a red herring leading one down the garden path when prejudiced by premature cognitive commitments and emotional predispositions. The pull of truth, beauty and goodness have to be intuitively tested for intrinsic and instrumental value, *with* and *against* each other, *in* time and *over* time, for an integrative prehension. One *cannot ensure* success of such prehensions, but one *raise the probability* of success; even so, such success is provisional and contextual. This prehensive process will iteratively effectuate in and through its inter-psychic (between individuals) and intra-psychic (within an individual) dynamics of information flow/ exchange. The former we have alluded to in the subjective-objective move in the previous section, the latter we turn to in the next section.

With the inexorable self-multiplying movement of the objective Technium, the human psyche has to keep commensurate pace or risk being subjectively overwhelmed. As the American biologist E.O. Wilson rightly observes, "The real problem of humanity is the following: we have Palaeolithic emotions; medieval institutions; and god-like technology."

Art as the Technology for Whole-Personality Integration

'He who works with his hands is a labourer. He who works with his hands and his head is a craftsman. He who works with his hands and his head and his heart is an artist' ~ St. Francis of Assisi

Let us consider three factors that have a bearing on man's psychological structure and its development:

1. Eric Neumann, the German psychologist, shows how ontogenetic development can be regarded as a recapitulation of phylogenetic development, which means that any individual unit of consciousness such a person has to pass through the very archetypal stages which determined the evolution of consciousness in the life of humanity as a species.
2. The ongoing complexification of consciousness towards some omega point as a law proposed by the Jesuit Idealist Pierre Teilhard de Chadrin, and millennia of human suffering accompanied by psychic suppression and repression as coping mechanisms have pushed greater and greater contents of experience to the nether domains of the collective and personal unconscious.
3. The greater the proportion of unconscious material relative to the conscious, the more imbalanced and diseased becomes the human psyche. As Carl Jung advised 'Until you make the unconscious conscious, it will rule your life and you will call it fate'.

From the three points above taken together, it becomes obvious that the amelioration of the human condition depends to a large extent on accelerating the process of 'Facing the Dragons'. Unfortunately, most of modern positive psychology and pop-spirituality is obsessed with the light and in chronic aversion to darkness; which is understandable in the partly organic and partly engineered climate of fear and predatory feasting in which large sections of humanity cower.

One theory is that consciousness can only have come into existence on the basis of memory-images, of those images which scientists called eidetic because they are visually clear and intense, uncontaminated, as it were, by any conceptual association. It is possible that the language of pictures preceded the language of words. Symbolism has played as esoteric role over the centuries in Art as Healing through representation, expression, evocation and association.

As the constitution of the subterranean archetypal material is partly cognitive, partly libidinal-emotional and mostly non-conceptual and pre-verbal, one can possibly charter the Art enterprise (especially but not restricted to visual arts) to devise the technology of handholding humanity through self-discovery, conflict resolution, and what Aristotle called the *cathartic purgation*. Emotions bottled up under social constraints and prone to destructive eruption are sluiced away in the harmless form of theatrical excitement, dream therapy, or shadow work in simulated environments. A full range of felt experience between the Apollonian and the Dionysian in their various connotations can 'drop the penny' that these two polarities are entwined in our very nature. Organizations such as the American Arts Therapy Association and the British Association of Art Therapists have only begun to scratch the surface of Art as therapy.

Music is experienced as if it had the power to reach man's emotions directly bypassing the cognitive circuitry. Conceptual integrations require constant effort and a permanent responsibility; the process of musical integration is automatic and effortless. One's reaction to music carries a sense of total certainty, as if it were simple, self-evident, not to be doubted. Music therapy is a burgeoning field within the broader Arts Therapy movement, as demonstrated by organizations such as Musicorps and models such as NMT (Neurologic Music Therapy). Personally speaking, when dealing with the most harrowing existential challenges including heartbreaks, nothing has been a more deliciously alchemical space-holder for me than poetry set ablaze on music, whose experiential climaxes gently/ violently knock on the doors of the heart-soul that are aching to be torn open into new horizons of release.

Like the bridge between appearance and reality, between the sensory and the intellectual, Art can thus also bridge the conscious with the unconscious; through this whole-personality integration the artist becomes the healer (one who renders whole) for himself and others. Dynamic visualization technology available electronically today can make this active imagination process more potent, versatile and custom-constructible. The problem imputed to Technology as a pervasive influence of *instrumental reason* and objectification of man and nature, can be addressed by Technology itself in close partnership with Art as an e-Consciousness enterprise. (e-Consciousness = the development in and dissemination of higher consciousness, enabled through electronic means for reach and longevity). *Meditative thinking*, then, will be able to indicate the existence of other possibilities which are concealed by *calculative thinking*; Goethe, the German thinker, called this *Anschauung*, the 'intuitive knowledge gained through contemplation of the visible aspect.'

However, the business of the integrated self remains unfinished and under-utilized as long as the world remains in misery.

Technology as the Art of Self-to-World Coherence

Coming back to the Technium, Kevin Kelly contends an 'ordained becoming' which means a generally inevitable direction of its evolution while the specific details remain contingent. Like biological life, such a direction is of increasing complexity, organization, differentiation, specialization, diversity, mutuality, sentience and integration. Unlike biological life, however, we also see the exponential directions specific to the information age: digitization, dematerialization, demonetization and democratization. The American author-journalist Robert Wright sees the 'playing of ever-more-numerous, ever larger and ever-more-elaborate non-zero-sum-games' very likely to carry social organization to planetary breadth. A non-zero-sum game is such that one player does not have to lose for another to win.

So, not only is there is a greater possibility of personal integration of the human, there is also a greater possibility of coherence between and across various social clusters of humanity. Just as poor integration of the personality leads to fragmentation and entropic dis-ease, poor integration of social clusters lead to structural imbalances and functional deficits. For example, if we consider the clusters

of the self, the workplace, the nation, and the planet in increasing order of scale and scope, we see some sub-optimality crying out for synchronic optimization:

Inter-Cluster	Symptom of weak coherence	Consequences of weak coherence	Consequences of strong coherence, if achieved
Self - Other	Low or misplaced trust, weak kinship or unhealthy dependency	Relationship friction, predation, energy leakage	Creative resonance and higher value creation
Self-Workplace	Low motivation, priority clashes, organizational entropy	High cost of Productivity, Burnout, Strained output	Mutually harmonious contribution & growth
Self-Nation	Disempowerment, helplessness, apathy	Irresponsibility, blame culture, erosion of social capital	Engagement, responsible behavior, social development
Workplace - Nation	Misalignment between entrepreneurial effort and social priorities	Privatization of gains and socialization of losses	Creative problem solving at scale and scope
Nation - Planet	Mismatch between national and global optima	Strife, escalating crises including war, tragedy of the commons, terrorism	Peace, thriveability

Technology creates newer and greater avenues for non-zero-sum games. The internet has heralded a networked society wherein increasing connectivity has fostered increasing inter-dependence, which, among other things, strengthens reciprocal altruism and levies a price for freeloading. Integration through bridging the self-to-world continuum has graduated from possibility to probability, based on the new suite of technologies which are already active and visible:

- Augmented & Virtual Reality technologies - simulated learning, training & dojo environments
- Pattern & Attribute Matching Algorithms – Relational compatibility assessment and monitoring between people and organizations
- Blockchain & Smart Contracts – Trust protocols, decentralized control and responsibility, disintermediation of transactions and organizational coordination
- Internet of Things & Intelligent Interfaces– diversity and connectivity of sentience between man and machine, affective computing and bio-energetic sensing
- Natural Language Processing & Semantic Analytics– precision of communication, richer flow of meaning, better understanding and sentiment analysis
- Collaboration & Decision Management Systems – Problem solving, execution and monitoring at scale

The potential of these technologies are at various stages of conceptualization, development, testing and deployment in siloes. But we are far from an integrated implementation across the social clusters in synchronous unison. A digital meta-platform that brings together the full power of these technologies (and more) to the full range of challenges, potentialities, solutions and evaluations together into a globally systematized and participatory process, is the need of the hour.

The Non-zero-sum Infinite Game of Imagineering

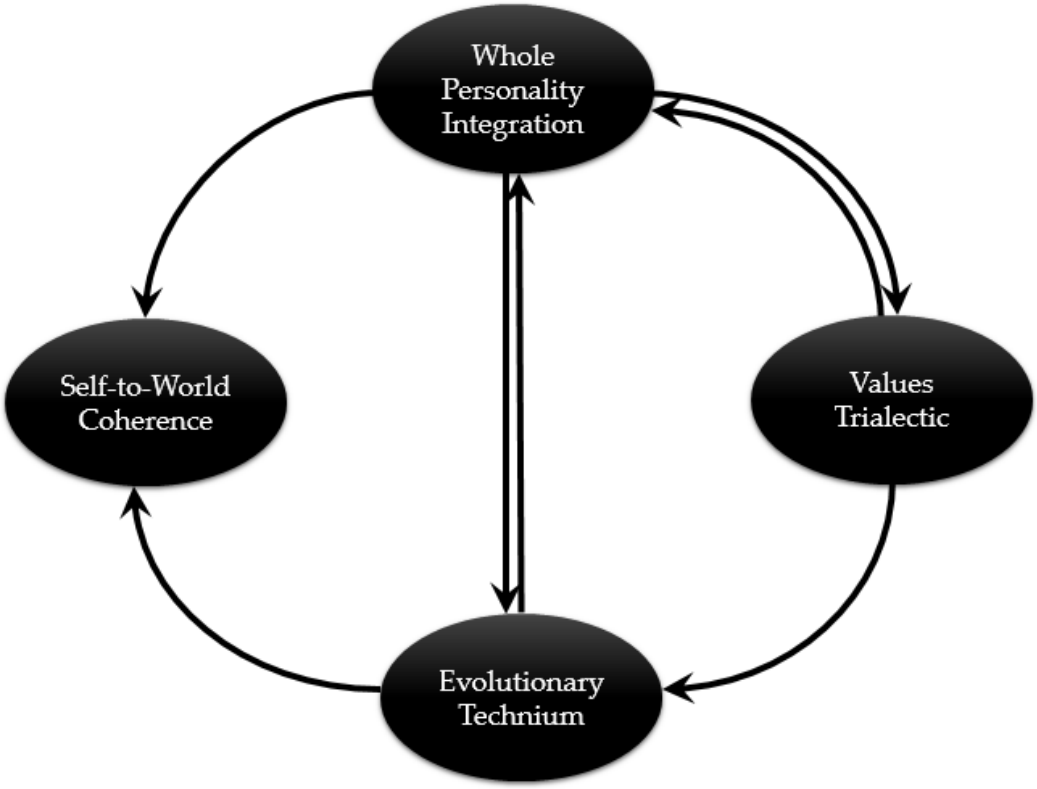
The integrated meta-platform mentioned above will incubate and enact the virtuous loop of Imagineering as a single whole movement of ubiquitous creativity as depicted below.

It is a *game* because it is structured, yet uncertain form of play within the complementary embrace of intrinsic and instrumental value. It is played for entertainment, learning, achievement of various forms of reward and value-fulfilment. It involves both challenges and opportunities within the self-as-world and world-as-self, through which one can up one's own game and the planetary game-space. It is played *from* a place of playfulness in integrated personality, than *to* achieve playfulness; playfulness includes seriousness but is not commandeered by seriousness. In the internet-mediated reticular topology of the info-sphere/ noosphere, the game straddles the zone between the physical and the virtual.

It is *non-zero-sum* because the four different parts of the loop are inspired and impelled by each other's intrinsic and instrumental imperatives; no part can be left behind because they constitute the necessary and sufficient conditions for the whole game to play out.

It is an *infinite* game because it includes all other (finite) named and unnamed games and rules within and between the ambits of the four aspects, is played by everybody either actively or passively but voluntarily, and it never ends.

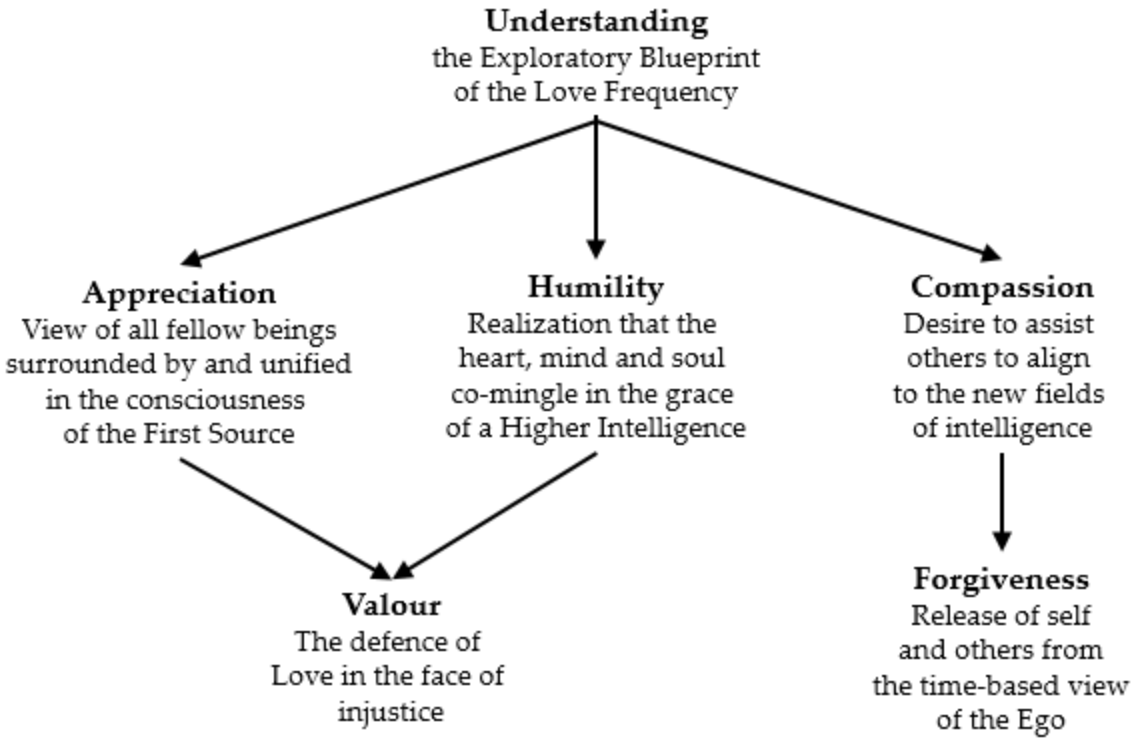
The Values Trialectic kindles and is kindled by the human entelechy through Whole-Personality Integration which through the reticular Imagineering dynamic evolves the Technium, all of which together propel cluster orchestration that enhances Self-to-World coherence as the ongoing play-work in and of the Infinite Game.



We can intuit that individual liberation is never complete without emancipation of the overall condition of humanity which today finds itself with obsolete institutional structures, a crisis of values and a general disconnection from Source. As the leading sentient edge of the cosmic infinite game, humanity's body politic will have to be suffused with six intelligent energy fields which James Mahu, the mystic-artist, calls 'the energetic equivalents of First Source's imprint upon the individual soul', namely:

~ Appreciation, Compassion, Forgivingness, Humility, Understanding & Valour

The six energy field names have a significance slightly different from the conventional dictionary meanings of the same words, as described in the graphic below sourced from the Event Temples publication 'When-Which-How Practice Guide. These six virtues together constitute the Art of accessing and applying the co-creative intelligence of the Source field into the game through the Technology of the *Sapiens* instrumentation.



In the end, the ultimate Art is the Technology of discovering man's relationship with the Alpha of all creativity, and the ultimate Technology is the Art of being in rapturous harmony with the transcendental-immanent Omega of all creation.

Let us rise together into The Infinite Game.