## Paul Hague January 2025

I first saw that *Homo sapiens* 'wise human' is not immortal in April 1982, when working as an IT consultant in Kuwait in the middle of the Iran-Iraq and Falklands Wars. As life and death are two sides of the same coin, one day, a generation of children will be born who will not grow old enough to have children of their own. This is an unavoidable insight that has guided every moment of my life ever since.

For, two years earlier, seeing that the inherently unstable global economy holds the seeds of its own destruction within it, I had resigned from my innovative marketing job with IBM in London to answer the most critical unanswered question in science: What is causing scientists and technologists, aided and abetted by computer technology, to drive the pace of scientific discovery and technological development at unprecedented exponential rates of acceleration?

Initially, I ingenuously hoped that by learning what it truly means to be human - transcending the limitations of machines with so-called artificial intelligence (AI) - we could collectively evolve into an eschatological Age of Light, thriving harmoniously in a post-industrial wisdom society for a few more generations, until the 2200s, at least.

However, since meeting Guy McPherson for lunch in Oslo in December 2017, I have realized that I had been far too optimistic about when human extinction is likely to occur. Guy, Emeritus Professor of Natural Resources at the University of Arizona, told me that global dimming, also called the aerosol-masking effect, is slowing down the rate of global heating. So, if we reduce the pollution of industrial society, this will bring about human extinction much sooner.

Indeed, Guy's brilliant scholarship, elucidated every week on his *Nature Bats Last* YouTube channel, tells us that today's children are probably the last generation of humans to be born on our beautiful planet Earth. It cannot be long now before abrupt, irreversible climate change will destroy the habitat that we need to grow our food. The current cost-of-living crisis is clear evidence of where we are rapidly heading.

However, despite the existential crises that we are all facing, few look at the wealth of evidence that Guy presents in his regular series 'Science Snippets'. Recent videos have had just two to five thousand views, ten to twenty-five per cent of his 21,000 subscribers, a tiny proportion of the billions of humans on Earth with access to the Internet. None of this reaches the corporate media or politicians, driven by the obsessive pursuit of economic growth, driven, in turn, by the fear of death.

As it is highly improbable that there will be any food to buy in the shops within ten years, it is crystal clear that we are now living at the end of time, as foreseen by the organized religions. For myself, after a lifetime seeking to end the long-running war between science and spirituality, I have found that the only way to realize Inner Peace – and thus face death with equanimity – is to live blissfully in the Stillness of the Eternal Now, in conscious union with our Immortal Ground of Being, free of the sense of a separate self.



From a personal perspective, my life's work therefore feels complete. I am Wholeness, with nothing and no one outside me, belonging nowhere and everywhere. For the creative power of Life, bubbling up from our Divine Source, like an effervescent fountain, has shown me how to solve the ultimate problem of human learning, which Albert Einstein spent the last thirty years of his life trying to solve within the narrow

confines of physics. However, neither Einstein nor his successors have succeeded in reaching the apotheosis of rational thought, because they have excluded the multitude of life-giving, psychospiritual energies within us from the elusive Theory of Everything, which has been called the 'Holy Grail and Philosopher's Stone' of scientific discovery.

However, from a social perspective, my guiding spirit is telling me that I still have a worthwhile contribution to make to humanity in some capacity or other, yet to be revealed. Because of my pioneering, free-spirited ontogeny, I don't know what this could be. So, all I can do in this synoptic monograph is tap into the utmost depths of my innermost power as a human being, highlighting the central issues facing us all today, as I see them as a *Holoramic* 'Whole-seeing' visionary.

From this Big-Picture perspective – which is of the utmost profundity and extent – I first note that when humankind becomes extinct, banks and stock markets will also disappear. So, money will no longer provide people with a precarious sense of security and identity in life. For, as Ernest Becker, the Pulitzer prize-winning author of *The Denial of Death*, points out in *Escape from Evil*, money acts as an immortality symbol, as widespread as people's religious beliefs. These have been used in a similar manner because of the experiential and cognitive split between humanity and Divinity opened up at least five thousand years ago, as we can see from the roots of these words in the Proto-Indo-European (PIE) language.

So, as we rapidly approach the extinction of the only extant human species, it makes no sense to be attached to money, or even the notion of ownership. For, even though "Money is a very old convenience," as John Kenneth Galbraith points out in *Money*, banks have nevertheless financed wars throughout history. Ever since banking originated in Renaissance Italy, military and financial institutions have been living in a symbiotic relationship. So, how could we manage our business affairs without the use of money, as the most perplexing invention of human imagination? Is there an alternative to money that could lead to World Peace and help us intelligently prepare for human extinction?

Indeed, there is! I began my studies of the psychodynamics of society with the notion that money is a type of information, and so can be represented in the semantic modelling methods of information systems architects in business. But this is not possible the other way round. As *information is data with meaning*, information cannot be satisfactorily represented in the financial modelling methods of management accountants, investment bankers, and quantitative economists. So, attempting to manage companies and governments through monetary modelling methods, rather than those based on meaningful information, is putting the cart before the horse, quite absurd for a cognitive species that calls itself 'wise'.

Viewing the Totality of Existence, and hence governments and businesses, as a meaningful information system has given me the opportunity to answer Erich Fromm's call in his masterpiece *To Have or To Be?* in 1976 for the art and science of humanity as the means for social reconstruction. After he had pointed out twenty years earlier in *The Sane Society* that the normal behaviour of the democratic majority is pathological, Fromm was inspired by the pre-eminent Christian mystic Meister Eckhart and the Buddha's Four Noble Truths to search for ways of healing our grievously sick society. As Fromm saw the human predicament in the middle of the Cold War, understanding what causes us humans to behave as we do is essential if we are to avoid psychological and economic catastrophe, not yet aware of the existential threats of climate change and AI, which have since entered public discourse.

So, as I saw back in 1980, by being free of attachment to money – the most divisive force on the planet – we humans could have the possibility of living in love, peace, and harmony with each other for a century or two before our inevitable demise. This is of the utmost importance. For we know less about what it means to be human than almost any other specialist domain of study. We spend billions of euros and dollars

on particle accelerators and telescopes searching for a fundamental fragment of matter and forms of life in outer space, respectively. But almost nothing on self-inquiry, learning to understand ourselves, in the spirit of Socrates, who said at the trial that sentenced him to death for corrupting the youth of Athens, "An unexamined life is not worth living."

Of course, we think we know what it means to be human based on our own experiences. But these are so constrained by what we learn during our formal education as children that few are able to break free of the shackles that bind us as adults. So, we continue fighting each other for a slice of the finite financial pie, despite some claiming that we are all interdependent on each other as a species and interconnected with all other beings. Indeed, most are so preoccupied with their families, friends, associates, and colleagues that they do not have the motivation to adopt the most radical change to the work ethic since the invention of money some 4,000 years ago.

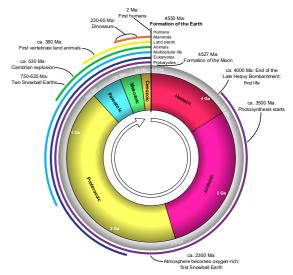
This I did in May 1980, when I escaped from my oppressive business environment, abandoning my children, who I could see were not being educated to live in the world that they would be living in when they came to be bringing up children of their own. For, the previous year, I had seen that technological development cannot drive economic growth indefinitely, because of the invention of the stored-program computer thirty years earlier. So, following a revelatory awakening, I set out in great excitement to use the semantic modelling methods of information systems architects to design a post-industrial system of managing our business affairs that would give everyone the opportunity to reach their fullest potential as humans, free, as much as possible, of our mechanistic, cultural conditioning.

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I was initially inspired to do so by David Attenborough's *Life on Earth*, broadcast by the BBC in 1979. This has greatly helped me to develop an evolutionary perspective, enabling me to explain what is causing

the pace of scientific discovery and technological invention to accelerate exponentially. In the first episode of this enthralling television series, Attenborough figuratively presented the exponential rate of evolutionary change in the context of 'big time', illustrated here from Wikipedia. He said that it is now some 3.6 billion years since the first self-reproducing forms of life appeared on Earth. So, if we consider 10 million years to be a day, we can map the whole of evolution on this planet to the days of the year.

Using this model, if 1st January marks the birth of singlecell organisms, then the first multicellular organisms appeared in the middle of August, with sexual reproduction



beginning about six weeks later. Other significant events during the late autumn were the emergence of fish, land plants, and reptiles. Then about the 10th December, both mammals and dinosaurs appeared, with mammals surviving the mass extinction that occurred on Christmas Day, one of seven and nine mass extinctions of land and marine forms of life so far in the life of the Earth.

This catastrophe enabled the primates to appear on Boxing Day, to be followed by the hominids four days later. Then on New Year's Eve, the first hominins appeared around two in the afternoon, with exemplars of the *Homo* genus following a few hours later. The whole of human evolution has thus taken place during the evening of the last day of the year, with *Homo sapiens* being born between 23:15 and 23:30. As we rapidly approach midnight on 31st December, we can see that the entire period of mental evolution

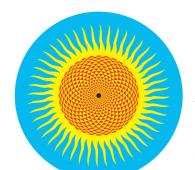
has taken place during the last eight or nine minutes, with the first civilizations appearing about 45 seconds ago, at the dawn of history, with the emergence of written language.

The Computer Age began less than a single tick before the present moment, which is midnight. For a second in Attenborough's evolutionary model is about 116 years. Today, it is 76 years, or 655 milliseconds, since the first practical stored-program computer was built at the University of Cambridge. So, if we ignore the eighth mass extinction event the Earth is currently going through, what could happen during the next 40 years, until 2065, when the duration of the Computer Age will have expanded to a full second?

Well, the first point to note is that evolution is not just a biological process. Since humans were given the wonderful gift of Self-reflective Intelligence some 40 to 60,000 years ago, mental development and human learning has been the predominant evolutionary impulse. So, the *élan vital* of biogenesis has become noogenesis. Furthermore, the Sun and the Earth are the products of billions of years of evolution in the physical universe, as atoms and stars emerged in the manifest world of form. So, in general, we can say that evolution is an accumulative process of divergence and convergence, proceeding in an accelerating, exponential fashion by synergistically creating wholes that are greater than the sum of the immediately preceding wholes through the new forms and relationships that emerge, apparently out of nothing.

Pierre Teilhard de Chardin took a similar holistic perspective in *The Human Phenomenon*, viewing evolution since the most recent big bang in four stages: physical, biological, mental, and spiritual. For, as he observed in the 1920s when working in China, we cannot understand evolution as a whole without first studying the human phenomenon through self-reflection. This is essential to answer the fundamental questions of human existence, such as Who are we? Where have we come from? and Where are we going?

Now, to answer these questions, it is necessary for evolution to become fully aware of itself, as Julian Huxley, author of *Evolution: The Modern Synthesis*, pointed out in 1957 in a visionary essay titled 'Transhumanism'. But we cannot get there from here. As he said, to understand human nature and hence the meaning of life, we need to destroy "the ideas and the institutions that stand in the way of our realizing our possibilities" and rebuild on a fresh foundation. We would then transcend our limitations, fulfilling our highest potential as spiritual beings, living in mystical ecstasy, free from the suffering that has plagued humanity through the millennia.





With such freedom from the institutional constraints on our learning, we enter an amazing world of quite extraordinary beauty, lit by the radiant Light of Consciousness, which reveals to Self-reflective Intelligence the innermost secrets of the Cosmos. We then see that the deepest hidden secret of the Universe is that the universe is not 'all existing matter, space, and time considered as a whole, the cosmos', as dictionaries define the word. Rather, the Cosmos, as the Totality of Existence viewed as a coherent whole, consists of inseparable material and nonmaterial regions, the latter being far more

extensive than the former, which just covers the surface of things.

For instance, Yehuda Berg tells us in *The Power of Kabbalah* – as the mystical heart of Judaism – that there is a curtain that divides our reality into two realms, 1% being our physical world, while the other 99% "is the source of all lasting fulfilment. All knowledge, wisdom, and joy dwell in this realm. This is the domain that Kabbalists call *Light*."

Of course, these are not precise percentages. But they do illustrate the way that we focus 99% of our attention on our external world, which is the superficial 1% of the Totality of Existence, but just 1% of our

learning activities studying the profound 99% that is inaccessible to our physical senses of sight, hearing, smell, taste, and touch.

But what other names have mystics given to this hidden 99%? Well, while astrophysicists have created the largest ever map of dark matter, there is no generally accepted name for or cognitive map of the inner world that we all share. Despite thousands of years of human learning, there is little understanding of what this vast expanse actually is, of what it contains, and therefore how it can best be named.

In *Autobiography of a Yogi*, Paramahansa Yogananda, known as 'Father of Yoga in the West' and a major influence on the life and work of Steve Jobs, called that which is beyond the senses the 'astral world, universe, cosmos, or body'. As his guru Sri Yukteswar told him, "The astral universe, made of various subtle vibrations of light and colour, is hundreds of times larger than the material cosmos."

Similarly, Helena Petrovna Blavatsky, cofounder of the Theosophical Society, called the nonmaterial realm the 'astral body' in *Isis Unveiled* and *The Secret Doctrine: The Synthesis of Science, Religion, and Philosophy*. As an alternative term, the theosophists Henry S. Olcott and A. P. Sinnett referred to the astral universe as the 'Akashic Records' in *The Buddhist Catechism* and *Esoteric Buddhism*, respectively.

Similarly, the systems philosopher Ervin Laszlo uses Sanskrit Ākāsha to refer to the Universal Quantum Field in his 'Akashic paradigm'. This corresponds to what Aristotle called *aither* 'a fifth element permeating all things and forming the substance of the heavenly bodies', the other four being fire, air, earth, and water, of course. Greek *aither* 'pure, fresh air' became *æther* in Latin, as 'the pure essence where the gods lived and which they breathed'.

The Æther is the Fifth Element or *Quintessence*, which the *Oxford Dictionary of English* on Apple's computers and mobile devices defines as 'a fifth substance in addition to the four elements, thought to compose the heavenly bodies and to be latent in all things'. In turn, *quintessence* was coined about 1435 from Medieval Latin *quinta essentia* 'fifth essence', as a loan translation from Greek *pémte ousiā*, akin to *aither*.

However, the term I prefer to use for the vast nonmaterial domain we all share is *Cosmic Psyche*, thereby avoiding association with the starry firmament. This is inspired by Carl Gustav Jung's use of *Psyche* in the 1930s to denote the field studied by Gnostic psychologists, replacing the German words *Geist* 'spirit' and *Seele* 'soul', which can both be translated as 'mind'. Indeed, as Jung wrote in the introduction to *Psychology and Alchemy* in 1944, the proper domain of psychology must embrace all aspects of our inner worlds, including our deepest mystical experiences, not projected outwards, as is customary in the West.

Cosmic Psyche is not a new term. Maharishi Mahesh Yogi, who introduced Transcendental Meditation (TM) in the West, popular with both celebrities and scientists alike, regarded the Cosmic Psyche as the 'unified source of creation', David W. Orme-Johnson tells us. This includes mathematical creativity, brilliantly illustrated by Srinivasa Ramanujan, who said, "An equation for me has no meaning unless it represents a thought of God."

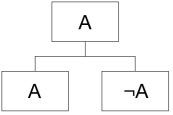


This means that if evolution is to become fully aware of itself, enabling us to understand what it means to be human within the overall scheme of things, we need to produce a comprehensive cognitive map of the Cosmic Psyche, as the final frontier of human exploration. But where do we begin this great adventure?

Well, for myself, this experiment in learning began at the end through an apocalyptic epiphany in April 1980, and has ended at the beginning in the Eternal Now, although I was not aware of its glorious culmination when it began. Then, around midsummer 1980, about eight weeks after I had set out to develop a cosmology that would explain what is causing the rate of change in society to accelerate exponentially, Life gave me the idea that opposites are never separate from each other in Reality, even contradictory ones.

This irrefutable truth, lying in the utmost depths of the Cosmic Psyche, is akin to Heraclitus's *Hidden Harmony*, which Aristotle rejected in *Metaphysics*, sending Western thought into the cul-de-sac it finds itself in today. In language, both others and I have called this fundamental law of the Universe various names over the years. For myself, I prefer the *Principle of Unity*, which states *Wholeness is the union of all opposites*. It was this insight that led me to see that humankind is not immortal back in 1982. Then, in my seventies, to denote the union of East and West and mysticism and mathematics, I called this universal truth the *Cosmic Equation* or *Identity*, inspired to so by *The Theory of Everything*, the 2014 biopic of Steven Hawking, which won an Oscar for Eddie Redmayne the following year:

Here W is any whole, including Wholeness, A is any being, including the Supreme Being and all human beings,  $\cup$  is union, and  $\neg$  is not. The pair of Chinese characters denote yin and yang, as inseparable dark and light, moon and sun, female and male, etc., unified in the symbols for the Dao and OM or AUM, the union of Brahman and Atman, as God and human, in the Mandukya Upanishad, at the heart of Nonduality.

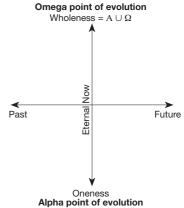


This diagram then depicts the primary-secondary relationship between the Formless Absolute and the relativistic world of form, which have the properties of Nonduality and duality, respectively. So, polarities and paradoxes are ubiquitous in the world we live in, leading to much conflict and suffering unless they are resolved in union with the Divine, when we are free of the sense of a

separate identity. In terms of our cognitive development, if we exclude self-contradictions from our reasoning, as conventional mathematicians do, we are inevitably led into delusion. To reveal Inner Peace, it is thus essential to take a non-mechanistic view of mathematics, establishing it on a sound foundation, which it lost at the turn of the nineteenth and twentieth centuries, when paradoxes were found in Georg Cantor's set theory, which is the most fundamental in mathematics.

We can do so by noting that there are two dimensions of time, with a primary-secondary relationship between the vertical and horizontal dimensions. We can thus see from this diagram why machines cannot think and why there is no such thing as artificial intelligence. Human creativity emerges from evolution's Alpha Point and culminates in Wholeness at its Omega Point, as the inseparable union of Alpha (A) and Omega  $(\Omega)$  in the Eternal Now.

With the Cosmic Identity as the primal axiom, we are now in a position to show how the modelling methods of information systems architects could be used to cocreate a harmonious way of managing our business affairs. Most significantly, to demonstrate that we have the potential to awaken human



significantly, to demonstrate that we have the potential to awaken human intelligence far beyond the capabilities of machines, in May 1980, I embarked on a thought experiment, not unlike those that Einstein used to develop the special and general theories of relativity.

To explore what causes us humans to think, learn, and behave as we do, I imagined that I am a computer that turns itself off and on again, so that it has no programs within it, not even a bootstrap program to load the operating system. Starting afresh at the very beginning with a *tabula rasa* 'blank slate', this 'computer' has then had the task of developing an all-inclusive method for mapping the Cosmic Psyche, the ultimate goal of human learning. This experiment thus inverts Alan Turing's Imitation Game, which he thought in 1950 could be used to 'prove' that machines can think for themselves.

This entire process of learning and unlearning is also an instance of the universal spiritual journey, which Joseph Campbell defined in seventeen steps in three phases in his popular book *The Hero with a Thousand* 

Faces. To set the context for our journeys in life, Campbell points out that in conformity with the fundamental law of the Universe, all beings are conceived and born to die. This, he calls the Cosmogonic

Growth

Decay

Cycle, depicted in this simple schema, saying, "Redemption consists in the return to superconsciousness and therewith the dissolution of the world. This is the great theme and formula of the cosmogonic cycle, the mythical image of the world's coming to manifestation and subsequent return into the nonmanifest condition."

Being able to see the underlying patterns and generalities of the myths and fairytales of multiple cultures through the ages, Campbell Conception Formless, Immortal Absolute Death calls the universal spiritual journey the 'monomyth', in which "A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellow man."

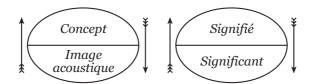


As a Panosopher, the boon that I am endeavouring to share with humanity is the Principle of Unity, overcoming the divisive one-sidedness that pervades society today. Jung raised a similar concern nearly one hundred years ago, when he wrote a *Commentary* to Richard Wilhelm's translation of *The Secret of the Golden Flower*. He said, "The Chinese have never failed to recognize the paradoxes and the polarity inherent in all life. The opposites always balance on the scales—a sign of high culture. Onesideness, though it lends momentum, is a mark of barbarism."

To see both sides of any situation, this means that we need to recognize the primary-secondary relationship of East and West and hence the primality of the Cosmic Psyche. For then we could learn what it contains, which the authorities who govern Western civilization do not teach us during our formal education or in the workplace, as adults.

Perhaps the simplest way to approach the necessary understanding is through the writings of Ferdinand de Saussure and Charles Sanders Peirce, the founders of semiotics around the turn of the nineteenth and twentieth centuries. For they viewed the maps we draw of the world we live in in both inner and outer forms, as concepts and as words, sounds, and other signs that denote them.

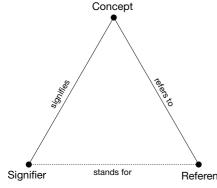
This is a distinction that de Saussure made in *Cours de linguistique générale*, which his students published posthumously in 1915. In this seminal book of structural semiology, as semiotics 'science of signs' was known in Europe at the time, he said: "I propose to retain the word *sign* [*signe*] to designate the whole and to replace concept and sound-image respectively by *signified* [*signifié*] and *signifier* [*signifiant*]," illustrated here.



For instance, the concept of  $\overline{T}$ , as a mental image, could be represented by *tree*, *träd*, *arbre*, or *Baum* in English, Swedish, French, and German, respectively. No matter which language we use to express our ideas, we all have much the same understanding of the concept of tree. Similarly, we could have the number three (:) in our minds as the signified, where the signifier, such as 3 or III, is called a numeral. This distinction between numbers, as concepts, and numerals, as signifiers, is something that computers cannot make. Both concepts and the signifiers that represent them need strings of bits to denote them. This is the

simplest way of proving that humans are not machines, that *artificial intelligence* is a misnomer, and hence that technological development cannot drive economic growth indefinitely, requiring a radical change in the work ethic that has driven human affairs for thousands of years.

However, what de Saussaure omitted in his dyadic view of signs was a representation of the territory being mapped. To obtain a complete picture within the Big Picture, we need to adapt Peirce's triadic architectonics, which he spent a lifetime developing. In the semiotic context, this is illustrated in what J. F. Sowa



of IBM calls the 'meaning triangle' in *Conceptual Structures*, inspired to do so by *The Meaning of Meaning* by C. K. Ogden and I. A. Richards. What this diagram illustrates is that there is an indirect relationship between language and the territory that language describes, not generally recognized by modern philosophers, focusing more attention on language than on the conceptual structures underlying language. And if we are to understand what causes us to behave as we do, it is important to remember that both concepts and signifiers are referents,

included in the territory that is being mapped.



We now have a rather tricky problem to solve, which I first encountered in January 1980, when I joined IBM's Information Systems Support Centre (ISSC) in London, which had a brief to take a five-year view of technological development, in contrast to the three-month perspective of finance directors. There, to promote IBM's marketing slogan 'Manage data as a corporate resource,' my colleagues were learning to model all business processes and data entities through an embryonic modelling method called Business Systems Planning (BSP).

At the heart of BSP studies was a process-entity matrix, which illustrated the relationships between dynamic business procedures, such as designing, manufacturing, marketing, ordering, and invoicing, and the static data structures that they operate on, such as employees, customers, products, locations, and deliveries. In computer terms, these correspond to two types of data: instructions to the central processing unit (CPU), like 'add', and the 'raw' data that these instructions operate on, like numerals and strings of characters, encoded in various ways. I thus call machine instructions *active* data and the data they operate on *passive* data. The relationship between active and passive data is then simply illustrated in this input-process-output diagram, as the fundamental data-processing structure of all machines:



This basic mechanistic process is evident at all levels of business, from the way that bits are added in the CPU with the logic of Boolean algebra, through programs in high level languages, to the tasks that humans perform, often described in procedure manuals in conformity with the ISO 9000 quality management system of the International Organization for Standardization. So, when humans blindly follow these procedures, they act as cogs in a gigantic economic machine, allegorically depicted in the popular film *The Matrix* in 1999.

But, as I was developing a national marketing programme for Decision Support Systems (DSS), how could the creative activities of managers and professionals interacting with computers in timesharing systems be represented in a BSP process-entity matrix? As functions in stored-program computers can create or modify instructions mid-flight, this capability led me to ask, could computers program themselves

without human involvement and where did the first program or computer come from? Indeed, where did the first of anything come from, like the first human?

As I later discovered, this question was like one that Aristotle had asked some 2,300 years earlier. In Book VIII, Section 4 of *Physics*, he said that everything that changes is changed by something and in Section 5 that there is a first agent of change that is not changed by anything. Thus, the notion of an Unmoved Mover entered Western philosophy, expressed in *Metaphysics* in this way: "Now since that which is moved must be moved by something, that the prime mover must be essentially immovable, and eternal motion must be excited by something eternal." In *Summa Theologiae*, Thomas Aquinas then took Aristotle's mechanistic cause-and-effect chain as the basis for his five proofs for the existence of God, as the Unmoved Mover.

Furthermore, how could the job of information systems architect be represented within models of all business processes? Most significantly, if we are to understand ourselves well enough to develop a compre-

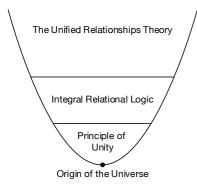
hensive cognitive map of the psychodynamics of society, it is necessary to include the map, the mapmaking process, and the mapmaker her- or himself in the territory being mapped. This is like a television camera filming itself filming, which is delightfully illustrated in M. C. Escher's famous lithograph 'Drawing Hands'. In other words, the observer and observer are inseparable, a unifying notion that led



David Bohm and Jiddu Krishnamurti to hold a series of public dialogues during the sixties and seventies.

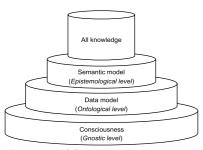
The Theory of Everything (TOE), as a cognitive map of the Totality of Existence (TOE), is thus contained within the territory being mapped. Viewing maps in this way is a major departure from the conventions of Western thought. For instance, Einstein wrote in 1931, "The belief in an external world independent of the perceiving subject is the basis of all natural science." Similarly, at about the same time, Alfred Korzybski made the famous assertion, "A map *is not* the territory it represents, but, if correct, it has a *similar structure* to the territory, which accounts for its usefulness."

So, in my holistic, systemic reasoning, I follow E. F. Schumacher's maxim for cognitive mapmaking in *A Guide for the Perplexed*: "Accept everything; reject nothing." As he wisely said, "Our task is to look at the world and see it whole."



Accordingly, building on the fundamental law of the Universe, the commonsensical system of thought that we all implicitly use every day to form concepts and organize our ideas in the Cosmic Psyche emerges directly from the Divine Origin of the Universe in the vertical dimension of time, in the Eternal Now. As this diagram illustrates, this art and science of reason is Integral Relational Logic (IRL), which provides the Cosmic Context, Gnostic Foundation, and system of coordinates for the Unified Relationships Theory (URT), as 'All knowledge'.

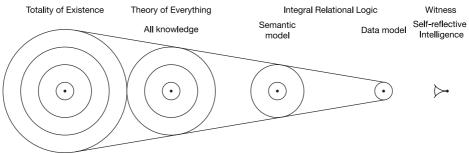
I also call this transcultural and transdisciplinary body of knowledge *Panosophy*, as 'universal wisdom', not studied in academia, which is fragmented into a multitude of specialist disciplines, often incomprehensible to each other. For the OED defines *panosophy*, with a slightly different spelling, as 'universal or cyclopædic knowledge; a scheme or cyclopædic work embracing the whole body of human knowledge'. To give myself an identity within academe, I thus call myself a *Panosopher*, an occupation that has evolved directly from the job of information systems architect in business, which uses data and semantic modelling methods to develop integrated business systems.



To explain, this diagram depicts the foundations of all knowledge in metaphysical terms, where Consciousness, as Ultimate Reality, unifies the incompatible contextual concepts of God and the Universe. So, to end the long-running war between religion and science – as I set out to do as a seven-year-old, beginning to think for myself – it is most appropriate to name Ultimate Reality by the Sanskrit word *Satchitānanda* 'Bliss of

Absolute Truth and Cosmic Consciousness'.

The following third diagram illustrates the way that these top three levels of knowledge map the Totality of Existence, with each level being contained within the one to its left. The fourth level of understanding is *Gnosis*, the inner knowing of the Divine, from which we are never separate, despite what religion, science, and business tell us to believe.



To explain, I view this entire structure by standing outside myself, with Self-reflective Intelligence, with what is called the *Witness* in some spiritual circles, rather like astronauts on the Moon, viewing the global populace on Earth as an undivided whole. In other words, if we are to understand the root cause of conflict and suffering, we need to let go of narrow and shallow ego-, ethno-, anthropo-, and geocentric views of what it means to be human, and take a *Holoramic* 'Whole-seeing' perspective, cognate with *panoramic*.

The key point about these abstract modelling methods is that they are applicable in all cultures, disciplines, and industries. If these generalities did not exist, the Internet could neither exist nor expand at hyperexponential rates of acceleration. Indeed, it was these powerful abstractions that led me to think that we humans could one day live in love, peace, and harmony with each other, which is potentially quite practical.

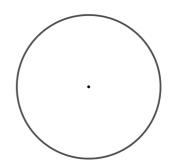
For, after taking early retirement from IBM's Nordic Software Development Laboratory in 1997, I occasionally worked as an IT consultant for an American company building advanced software systems for investment banks at Stockholm World Trade Center. There I worked with two information systems architects, unknowingly using Integral Relational Logic to model the business and software aspects of the product. Most significantly, I discovered that the financial algorithms embedded in these systems, such as risk used with hedge funds, only had meaning in the context of the data and class models that provided the ontological and epistemological framework for the information systems related to financial instruments. So, I could see that technologists have all the skills and tools we need to cocreate the Sharing Economy, if this is meant to happen. If we could put first things first, rather than putting the cart before the horse, then there is still a possibility that sanity could prevail.



However, to awaken to what is happening to us all as a species, we also need to recognize that the Cosmic Psyche does not only contain all the concepts that humans have developed during tens of thousands of years of human learning. The Akashic Records or Æther also consists of all mathematical objects before they are expressed externally, like this circle  $\bigcirc$ .

We can see this most clearly from Euclid's *Elements*, where he gave this definition: "A circle is a plane figure contained by one line such that all the straight lines falling upon it from one point among those lying within the figure are equal to one another." This was the fifteenth definition of basic mathematical objects that he gave in Book I, the first two being "A point is that which has no part," and "A line is breadthless length." The sixteenth definition was "And the point is called the centre of the circle."

So, this diagram of a circle is not a circle in a pure mathematical sense, for the circle has mass when printed on paper or displayed on a computer screen. Rather, it is an *expression* of the *mental image* of a circle, which we draw to communicate that which we see within us with our inner eyes. Furthermore, n-dimensional objects do not have a corresponding physical existence when n > 3, but are quite amenable to study with suitable mathematical techniques, as the pre-eminent geometer H. S. M. Coxeter pointed out in *Regular Polytopes* in 1963.



In addition, mathematicians have developed number systems that are far larger than the number of yoctoseconds since the most recent big bang (~4.36×10<sup>41</sup>). For instance, in the third century BCE, in an article titled *Psammitēs* 'The Sand Reckoner', Archimedes devised a number system to demonstrate that the supposedly infinite number of grains of sand in the physical universe is finite. This number is

 $10^{8\cdot10^{16}}$ 

which is 1 followed by 80 quadrillion zeros, in contrast to just 80 zeros, needed to count the number of atoms in the physical universe (~1080), as astrophysicists estimate today.

So, it makes no sense to try to interpret mathematical objects and structures from the limiting perspective of the superficial, material domain of existence. As there are no conceptual limits within the Cosmic Psyche, we can understand how mathematicians are able to extend even the largest finite numbers into the infinity of infinities, leading to Transfinity, in union with the Divine.

By viewing mathematical objects as Akashic Records, we can thus address some of the critical issues that Eugene Wigner raised in 1959 in 'The Unreasonable Effectiveness of Mathematics in the Natural Sciences'. For instance, he said, "The principal emphasis is on the invention of concepts. Mathematics would soon run out of interesting theorems if these had to be formulated in terms of the concepts which already appear in the axioms." So, as "The physicist is interested in discovering the laws of inanimate nature", how can physics tell us anything about how mathematicians create new concepts that do not appear in the axioms?

Similarly, when studying the Category of the Ultimate, Whitehead said, "Creativity' is the principle of novelty," leading to 'the production of novel togetherness', which he called 'concrescence', a 'growing together of parts originally separate'. So, even when viewing 'reality' as a process in one dimension, new concepts can arise in a holistic manner, like waves and ripples on the surface of what Bohm called the 'holomovement', as an undivided flowing movement in the Æther. But Whitehead went on to say that Wholeness is a worldview that cannot be established rationally. Rather, "The sole appeal is to intuition."

From the contextual foundation of Wholeness, embracing the Cosmic Psyche, we can rationally explain creativity and novelty. In particular, by using the Cosmic Identity as the primal axiom for mathematics, we can view this universal specialist discipline as the generative art and science of patterns and relationships emerging directly from the Source. By thus turning mechanistic deductive reasoning, in the horizontal dimension of time, into a vibrant, creative way of thinking, in the vertical dimension, we can rebuild the entire edifice of mathematics on the fundamental law of the Universe, and hence the Truth.

In this way, we can address the central issue of Wigner's paper, in which he also said, "The enormous usefulness of mathematics in the natural sciences is something bordering on the mysterious and ... there is



no rational explanation for it." Well, we can explain this mystery when we realize that the creative power of Life flows from the Origin of the Universe through the mathematical structures lying in the Cosmic Psyche to form structures in the world around us, which can be mapped mathematically.

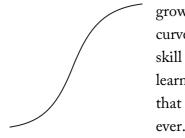
For instance, Burkard Polster explains in a video on his Mathologer YouTube channel how the number of spirals in each interweaving set generated in the sunflowers in our gardens follow the Fibonacci sequence, the archetypical generative

sequence in mathematics, seen widely in the outer expressions of Nature.

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By recognizing that mathematical structures within the Akashic Field generate the world we live in, we can use suitable mathematical techniques to explain why the rate of change in society is accelerating exponentially. Indeed, as evolution is an accumulative process, we can use the generative qualities of mathematics to develop a mathematical model of all 13.8 billion years of evolution since the most recent big bang.

To begin, the exponential curve on the right illustrates how rates of accumulative growth can accelerate faster and faster, apparently for ever, to infinity. However, we cannot apply the exponential function directly to evolutionary processes. In actuality, all

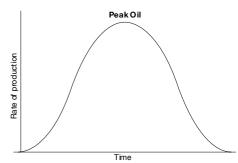


growth processes unfold under constraint, depicted in the S-shape of the growth curve on the left. This is most familiar as the learning curve. When learning a new skill or subject, it can sometimes take quite a long time at the beginning before learning accelerates after the coordination point. We then say, rather confusingly, that such an endeavour has a 'steep learning curve'. But learning cannot continue for ever. Eventually it approaches a peak at its saturation point. It is unlikely that

Olympic sprinters will ever run 100 metres in under eight seconds.

Pierre François Verhulst was the first to find a mathematical formula for the growth curve, when studying the potential for population growth in the newly formed Kingdom of Belgium in 1844. He called it the *logistic function*, which is ubiquitous in the world we live in. For instance, D'Arcy Wentworth Thompson, a pioneering mathematical biologist, made much use of this function in the second edition of *On Growth and Form* in 1942. In an extensive chapter on the rate of growth in biological processes, he pointed out that this one curve recurs in endless shapes and circumstances, for mathematics generalizes and "is fond of giving the same name to different things".

As another example, in 1956, M. King Hubbert, Chief Consultant (General Geology) for Shell, used the logistic function in a 56-page paper on what is today called 'peak oil', extending it into a 150-page report on 'Energy Resources' in 1962. He was particularly concerned with the finite limits of fossil fuels, such as oil, gas, and coal, on which industrial society has long depended. Hubbert showed that these are limited by the area under the curve,

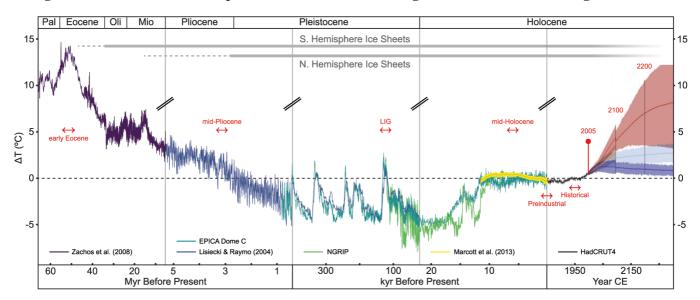


which illustrates the rate of growth of the logistic function. So, we see here another example of the Cosmogonic Cycle on page 7, which governs the entire dynamics of the Totality of Existence.

Furthermore, positive feedback loops are other examples of accumulative processes, and so could be

mapped with the logistic function. For instance, Guy McPherson listed dozens of self-reinforcing feedback loops in a paper he wrote in 2016, with more having been discovered since then. Most significantly, the ice sheets in both the Arctic and Antarctic are melting with increasing rapidity from both beneath, with 'heat bombs', and above, through the release of methane gas, for instance, a very powerful greenhouse gas. As peer-reviewed papers indicate, we are rapidly heading for a 'Blue-Ocean Event' in the Arctic, which will abruptly destroy the habitat that humans and other vertebrates need to survive.

As a summary of current trends, Guy sometimes reminds the subscribers to his YouTube channel that six scholars published a paper in the prestigious *Proceedings of the National Academy of Sciences* (PNAS) in 2018, which indicates that temperatures in the near future could rapidly rise to the levels of those that existed during the Pliocene and Eocene epochs, before the recent ice age, illustrated with this diagram:

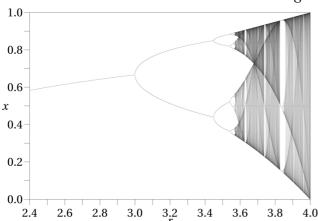


To illustrate how the logistic function applies to the evolution of the species, Niles Eldredge and Stephen Jay Gould presented a paper at the annual meeting of the Paleontological Society and the Geological Society of America in 1971, titled 'Punctuated Equilibria: An Alternative to Phyletic Gradualism'. At the time, the general consensus among palaeontologists and biologists was that evolution progresses gradually. But this does not explain why there are large gaps in the fossil record. There are long periods of virtual standstill (equilibrium), punctuated by episodes of very fast development of new forms of life. In actuality, evolution progresses in fits and starts, for as Eldredge put it in his book *Time Frames*, "once a species evolves, it will not undergo great change as it continues its existence."



Although it is possible to use the logistic function to map the varying rates of change in biogenesis, as C. H. Waddington and Erich Jantsch, for instance, have done, to mathematically model our entire evolutionary story, it is more effective to use the discrete form of the logistic function: the *logistic map*, which is generated by a nonlinear difference equation with fractal-like properties, not unlike that which generates the Mandelbrot set. Robert May used the logistic map in the 1970s to study the hypothetical population of fish in a pond, later becoming Chief Scientific Adviser to the UK Government and president of the Royal Society. But he had some rather strange results. He found that the number of fish in the pond oscillated, eventually becoming chaotic, at what is called the 'accumulation point' in nonlinear systems dynamics, illustrated in the following diagram.

Then, in the same decade, Mitchell J. Feigenbaum showed that each period of bifurcating systems in a logistic map tends to diminish by and to a factor  $\delta$ , which is about 4.6692, known as the Feigenbaum



bifurcation velocity constant. This is a mathematical constant like  $\pi$ , the ratio of the circumference of a circle to its diameter; e, the exponential constant; and  $\phi$ , the golden ratio. For these are applicable in all possible universes, quite independent of physical units defined by humans. As this mathematical constant is not only found in the logistic map, Feigenbaum called this property of nonlinear systems 'universality theory'.

I learned how to apply the logistic map to all 13.8 billion years of evolution in the spring of 2000 at a con-

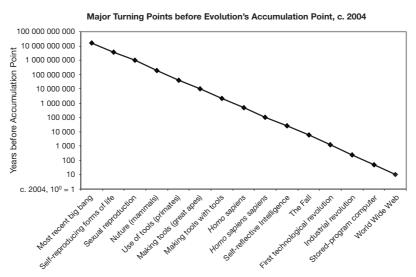
tinental gathering in Sweden of the Scientific and Medical Network (SMN), based in the UK. There, Nick Hoggard, a software developer, showed the thirty delegates the mathematical technique that could be used to map the exponential rate of evolutionary change, which I had been seeking for the previous twenty years, since reading David Attenborough's *Life on Earth*.

Nick was inspired to develop his mathematical model of evolutionary development by a talk that he had heard Carl Johan Calleman give based on the Mayan calendar. As this is uniquely exponential, it can be used to map some of the major turning points in evolutionary history. However, diminishing evolutionary periods in this calendar are vigesimal, based on 20, rather than the 10 of our decimal system. But such a rate of change is too crude to include the so-called origin of life on Earth as a major turning point.

Nick realized that such a momentous event in evolutionary history could be included by considering the reciprocal of  $\sqrt{20}$ , rather than 20, as the evolutionary diminishing factor, which is 4.472, reasonably close to 4.669, the Feigenbaum bifurcation velocity constant. At the heart of this explanation is the sum of an infinite series of diminishing terms with a finite limit, which appears to be a paradoxical situation that much perplexed Zeno of Elea. For instance, if we begin with 1 and reduce each successive term by a half, we have

$$1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \dots = 2$$

With such a refinement of the Mayan model of evolutionary change, also popular with leading evolutionaries in the noughties, Nick showed that the whole of evolution since the most recent big bang in the horizontal dimension of time could be mapped with nonlinear systems dynamics, culminating in its Accumulation Point, when evolutionary bifurcations degenerated into chaos at a finite point in time, around 2004, as this semilogarithmic chart illustrates:



As a dripping tap is another example of a nonlinear system, Nick used this as a metaphor for evolution as a whole. As a tap is gradually turned on under laboratory conditions, the distances between the drops diminish geometrically, until the tap is fully turned on at its accumulation point. Similarly, the evolutionary tap is now fully turned on, with no further turning points to be discerned.

The most important insight arising from this evolutionary model is that climate change is not anthropogenic, despite the Intergovernmental Panel on Climate Change (IPCC), for instance, saying that it is. Billions of years of accumulative evolution are becoming manifest at ever-increasing rates of acceleration within the eight billion humans on Earth, especially within scientists and technologists, like myself.

This also means that Panosophy, which brings universal order to the psychosocial chaos the world is in today, is not anthropocentric. As the second diagram on page 10 illustrates, this megasynthesis of all knowledge has come into existence because I have learnt to stand outside myself and look at the world we live in from a Holoramic perspective. This explains why no specialist has yet understood what it means to be a Panosopher, even teachers of Nonduality, whose principal purpose is to help their followers to empty their minds of concepts, in pursuit of Inner Peace. In contrast, evolution can only become fully aware of itself when our cognitive development is guided by the Cosmic Identity, which denotes that A, as the Absolute, is the union of A and not-A, representing the relativistic world of form.

As my companion Ella is the only other human being I know who understands this universal, irrefutable truth, it is not clear how to proceed from here. Each of us is following our own unique path in life, in association with other 'like-minded' individuals. So, unless entire communities suddenly begin to live in harmony with the Hidden Harmony, which Aristotle denied with his Law of Contradiction, it is not possible to apply the remedy to our chaotic, distressed world, free of attachment to the divisive force of money.

The central challenge here is this attitude, which has a long history: 'If you're not with us, you're against us.' Conflict-ridden, either-or thinkers generally regard those with a both-and, bipartisan approach to managing humanity's practical affairs as enemies. David Bohm, my principal scientific mentor, raised a similar concern in the opening paragraphs of *Wholeness and the Implicate Order*:

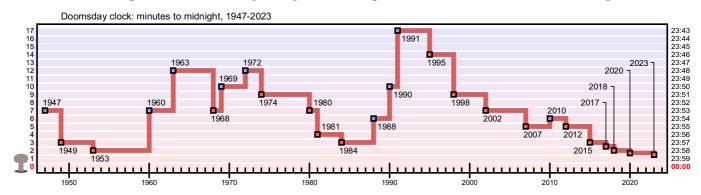
Fragmentation is now very widespread, not only throughout society, but also in each individual; and this is leading to a kind of general confusion of the mind, which creates an endless series of problems and interferes with our clarity of perception so seriously as to prevent us from being able to solve most of them. Thus art, science, technology, and human work in general, are divided up into specialities, each considered to be separate in essence from the others.

Nevertheless, faced with the near-term extinction of our species, in 2017, Matthew Fox suggested a collective solution to the existential crises that humanity faces today in the Foreword to Andrew Harvey and Carolyn Baker's *Savage Grace: Living Resiliently in the Dark Night of the Globe*. He wrote, "Ours is a time not only for scientists and inventors but also mystics and contemplatives to join hands so that our action flows from being and from a deep place of return to the Source."

Such an alliance is what I have been attempting to set up forty years, since meeting my Norwegian wife Berit at *The Other Economic Summit* (TOES) in London. But the time has not yet been right for this initiative to become manifest, not the least because I first needed to complete my spiritual journey, living in Wholeness, free of the sense of a separate self, as much as possible. It has been a tumultuous journey, begun as a seven-year-old in 1949, when I set out to discover why I had been born in a world that is at war with itself, necessary to heal the collective trauma that humanity has been suffering from for millennia.

Since then, the Wikipedia diagram on the next page provides a metaphor for how close to catastrophe humanity has been during my lifetime. Then, on 28th January 2025, the Science and Security Board (SASB) of the *Bulletin of Nuclear Scientists* nudged the Doomsday Clock forward by just one second to 89 seconds

to midnight, corresponding to midnight in Attenborough's evolutionary model, which is always Now. The members of the Board set the clock closer to midnight, because they did not see sufficient positive progress on the global challenges we face including nuclear risk, climate change, biological threats, and advances in disruptive technologies, such as AI. Nevertheless, the Board's special guest Juan Manuel Santos, Chair of The Elders, was optimistic that changes in government policies could move the clock back again.



The year before Einstein co-founded the *Bulletin of Nuclear Scientists*, he wrote an article titled 'The Real Problem Is in the Hearts of Men' for the *New York Times Magazine*, which encapsulated the principle that you cannot solve a problem with the mindset that created it. He began with these words: "Many persons have inquired concerning a recent message of mine that 'a new type of thinking is essential if mankind is to survive and move to higher levels'." Einstein then went on to write, "Past thinking and methods did not prevent world wars. Future thinking *must* prevent wars."



As Integral Relational Logic is the system of thought that leads to Inner Peace and potentially World Peace, it is the art and science of reason that Einstein called for just before I started school. However, as Integral Relational Logic starts afresh at the very beginning, through an apocalyptic awakening, nobody yet understands its immense power and potential. So, on the same day that the Doomsday Clock came a little closer to midnight, I asked DeepSeek, then making the headlines, 'What is Integral Relational Logic?' Within a couple of seconds, this is the reply I received on my iPad:

Integral Relational Logic (IRL) is a conceptual framework that integrates various forms of logic and reasoning to address complex, multi-dimensional problems. It is often used in fields such as philosophy, systems theory, and artificial intelligence to provide a holistic approach to understanding relationships, interactions, and dependencies within a system.

Key aspects of Integral Relational Logic include:

- 1. **Holistic Perspective**: IRL emphasizes the importance of considering the whole system rather than just its individual parts. It seeks to understand how different elements interact and influence one another.
- 2. **Relational Thinking:** This approach focuses on the relationships between entities, recognizing that the nature and quality of these relationships can significantly impact the overall system.
- 3. **Integrative Approach**: IRL combines different types of logic, such as deductive, inductive, and abductive reasoning, to provide a more comprehensive understanding of complex issues.
- 4. **Contextual Sensitivity**: IRL takes into account the context in which relationships and interactions occur, acknowledging that context can greatly influence outcomes.
- 5. **Dynamic and Adaptive**: The framework is designed to be flexible and adaptable, capable of evolving as new information and perspectives are introduced.

Applications of Integral Relational Logic can be found in various domains, including:

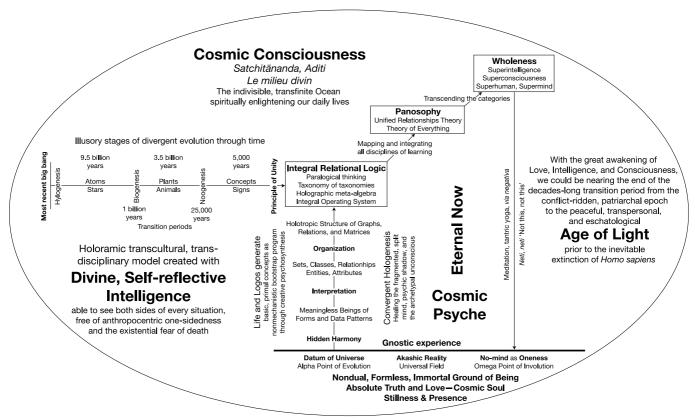
- Artificial Intelligence: Developing more sophisticated AI systems that can understand and reason about complex relationships and contexts.
- Systems Theory: Analyzing and designing systems that are robust, adaptive, and capable of handling complexity.
- Philosophy: Providing a framework for understanding the nature of relationships, causality, and interdependence in philosophical inquiries.

Overall, Integral Relational Logic aims to provide a more nuanced and comprehensive approach to reasoning and problem-solving, particularly in situations where traditional linear logic may fall short.

Although this definition gives some of the qualities of Integral Relational Logic, as I experience it within me, it does not tell us that this universal, commonsensical system of thought can be used to consummate the final revolution in science, just as Johannes Kepler and Isaac Newton completed the first in the 1600s. Neither does DeepSeek tell us where IRL originates or that it resides in the Cosmic Psyche, because its input database does not contain this information. It therefore doesn't 'know' how IRL helps practitioners to reveal Inner Peace in union with the Divine.

So, it is a mystery how mechanistic processes are able to generate this answer to my question. It seems that the algorithms in DeepSeek are clever enough to generate the properties of what this universal system of thought should be and how it could be applied, without understanding what it is. So, this response shows the emptiness of words that are not based on experience of the utmost profundity, no matter whether machines or humans express them.

This is a ubiquitous problem. Because of our fragmented minds and split souls, separate from Love and Truth, as the Divine Essence we all share, most lack the experience that reveals our True Nature, what it truly means to be a human being. So, I don't know if this schema of the Grand Design of the Universe could help others prepare for the imminent extinction of our species. I present it because I feel that by understanding our evolutionary story a little better, this could help mitigate the panic that is likely to ensue when water no longer flows from our taps and shops run out of food.



Most significantly, if we are to collaborate in the Intelligent Age, which was the theme of the World Economic Forum's annual meeting in Davos this month, we need to be free of attachment to money, sharing our skills and resources for the benefit of us all. Until this miracle happens, I'll continue to work in solitude, tidying up the semantic, linguistic, and mathematical loose ends, as expressions of Wholeness, to the best of my ability. For, while I much enjoy living in the Eternal Now in the Bliss of Stillness – like the awakened kindred spirits who have accompanied me on my life's journey – it is also great fun to explore the multitude of beautiful patterns in the illusory world of form.