

Intelligently Adapting to Our Rapidly Changing World

Paul Hague

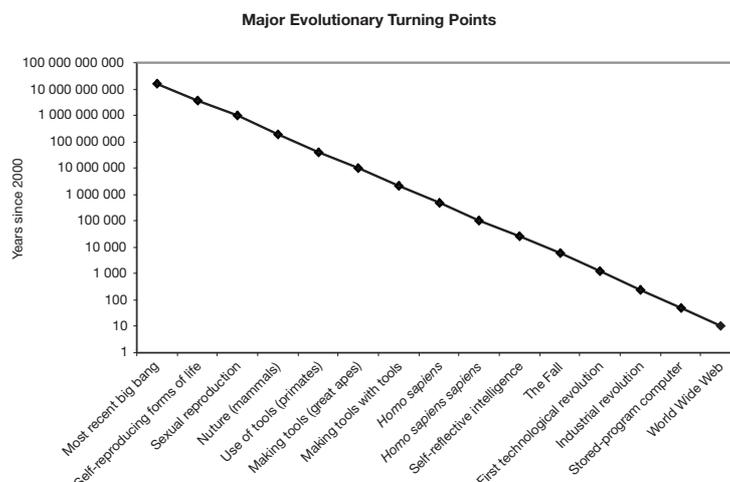
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The pace of change in society is accelerating faster and faster, yet there is no acceptable scientific explanation for what is causing scientists and technologists, aided and abetted by computer technology, to drive the pace of scientific discovery and technological development at exponential rates of change.

We can see this most clearly from David Attenborough's *Life on Earth* broadcast by the BBC in 1979. In the first episode of this enthralling television series, Attenborough graphically illustrated the exponential rate of evolutionary change. 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 single-cell 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 five mass extinctions of land and marine forms of life so far in the life of the Earth.

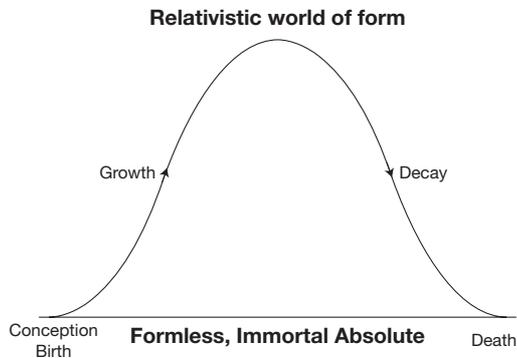
This catastrophe enabled the primates to appear on Boxing Day, to be followed by the hominids four days later. Then on New Year's Eve, the first exemplars of the *Homo* genus appeared around teatime. The whole of human evolution has thus taken place during the evening of the last day of the year, with *Homo sapiens* being born about 23:59:30. As we rapidly approach midnight on 31st December, we can see that the whole of mental evolution has taken place during the last three or four seconds, with the computer age beginning a fraction of a second before midnight.



To express this entire evolutionary process in rigorous scientific terms, we can use the Feigenbaum constant of 4.669 in the nonlinear mathematics of systems dynamics to map the major evolutionary turning points since the most recent bang, as the above diagram illustrates. This is a model of evolution

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that Nick Hoggard, a software developer living in southern Sweden, presented at a seminar in 2000, organized within the framework of the Scientific and Medical Network in the UK. I present the fractal-like mathematics involved in a book I wrote in 2016 titled *Through Evolution's Accumulation Point: Towards Its Glorious Culmination*. It shows how evolution's Accumulation Point relates to the technological singularity in time that some are anticipating, Terence McKenna's timewave zero, and the end of the Mayan calendar at the winter solstice in 2012.



This mathematical model explains why the world is degenerating into chaos at the present moment, with a few oases of semi-self-similar order amidst the chaos, as the mathematics illustrates. For instance, revolutionary evolutionaries are seeking to bring a sense of universal order to the chaos while spiritual seekers recapitulate what Joseph Campbell called the Cosmogonic Cycle, consciously returning to the Nonmanifest before the death of our species, as this diagram illustrates.

We humans are thus the products of some fourteen billion years of evolution since the most recent big bang. As we are subject to the fundamental law of the Universe, as individuals, as a civilization, and as a species, we are not in absolute control of our destiny. Without all these aeons of development, none of us would be where we are today, either as individuals or a species. So if we do not yet understand what is happening to humanity at the present time, that is what is meant to happen. There is no one to blame for our ignorance. Everything happens when it is meant to happen.

However, we are the most adaptable and the least instinctive of all the animals. Using the metaphor of a computer, very few of our thoughts and actions are hard-wired. The innate instincts and automatic reflexes of babies to suck, grasp, cry, and respond to stimuli mostly disappear within the first few months of life. Our learning—corresponding to software and data in computers—mostly determines the way that we view the world and ourselves, and hence our behaviour.

Yet, of all the species, we are the most vulnerable when we are born, utterly dependent for nourishment and support from our parents, and they from the society in which they live. So when we go to school as children, we learn what our parents and teachers want us to learn, being thoroughly conditioned by the families and cultures we live in by the time we reach adolescence, with some rebelling as teenagers.

This is a mechanical process that has been going on from generation to generation for thousands of years. Our conception of the universe, which provides the overall context for all our lives, is essentially unchanged from that of the Babylonians, who sought patterns in the skies, enabling them to make predictions of eclipses.

Yet following the invention of the stored-program computer at the universities of Manchester and Cambridge in England in the late 1940s, this traditional way of learning about the world we live in is no longer appropriate. For the computer is a machine quite unlike any other that the *Homo* genus has invented during the past two thousand millennia. Unlike the flint axe, wheel, printing press, telescope, steam engine, and telephone, for instance, which extend our rather limited physical abilities, *the computer is a tool of thought, able to extend the human mind, even in some cases replacing it*. Physics, as the science of mass, space, and time, not of the mind, is thus quite unable to explain what we have invented.

Yet, science and business have not changed in order to resolve the many psychological and economic challenges being presented to us by the invention of this ubiquitous, universal machine. We can see this most clearly from two prognostications that leading scientists have made in recent years. First, in

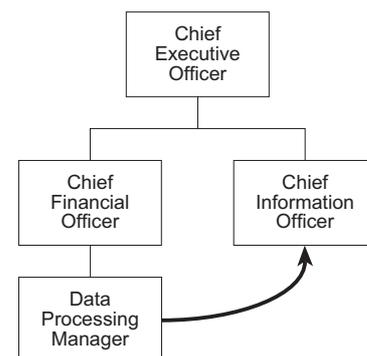
2004, Martin Rees, the Astronomer Royal and former President of the Royal Society, wrote in *Our Final Century: Will the Human Race Survive the Twenty-first Century?*, “A superintelligent machine could be the last invention that humans need ever make.” Secondly, Stephen Hawking told the BBC on 2nd December 2014, “The development of full artificial intelligence could spell the end of the human race.”

Therein lies the central issue of our times. The invention of the stored-program computer and its hypothetical development into quantum computers presents humanity with some fundamental existential questions about what it truly means to be a human being. To intelligently adapt to the accelerating pace of change that scientists and technologists are introducing, we need to awaken from our sleepwalking, sleepdriving, and sleepdriving habits, becoming free of our mechanistic scientific, economic, and religious conditioning, answering the big questions of human existence such as “Who are we?”, “Where have we come from?”, and “Where are we going?”



For myself, I began to think about the root causes of change in society in the late 1970s when developing an innovative marketing programme for Decision Support Systems for IBM in London, before powerful tools like Jupyter were readily available. Peter G. W. Keen and Michael S. Scott Morton introduced this interactive way of developing information systems in 1978 with their book *Decision Support Systems: An Organizational Perspective*, marking a major watershed in the evolution of the data-processing industry.

Before this time, systems analysts and computer programmers, reporting to the chief financial officer (CFO) through the data-processing manager (DPM), were the primary developers of information systems in business. However, they were unable to meet the demand for such systems from other departments, who wanted to directly access the databases in these systems so that they could do their own personal computing. A quite new approach to the management of data at the birth of the Information Society was needed, leading to the establishment of Chief Information Officers (CIO), also reporting to CEOs, as this diagram illustrates.



At the time, we could see that the information systems industry was evolving like the car industry. In the early years of the twentieth century, many cars were chauffeur driven, before individuals learned to drive themselves. Similarly, at first, computer systems were ‘chauffeur-driven’ by experts before the skills and techniques needed spread throughout businesses and into the population, as a whole.

But where were all these changes leading? When giving presentations at customer executive seminars at IBM’s European Education Centre in Belgium, I was asked what these momentous changes might mean for skills profiles and employment in the years to come, with the hypothetical prospect of machines with artificial general intelligence taking over the workplace, making many humans redundant.

For myself, I was also concerned about the quality of life in the workplace. For while automated computer systems could potentially free people from the drudgery of repetitive work, enabling them to be creative and have more satisfying lives, I could see that people were becoming increasingly trapped as cogs in the economic machine, graphically depicted in the popular movie *The Matrix*, a powerful allegory of our times.

This was not how I wanted to live my life, unable to take responsibility for the changes in the workplace that I was helping to bring about as an information systems architect. So wishing to be more

creative, in the winter of 1980, I turned to Business Systems Planning (BSP), IBM's first attempt to develop a comprehensive modelling method of the information systems in business, consisting of a process model and an entity model of the data structures being processed, which I call active and passive data, respectively. The relationship between them was depicted in a process-entity matrix.

The key feature of BSP, like its successor modelling methods, is that it models the dynamics of business without considering whether humans or machines perform the tasks and processes being modelled. This distinction is made later at the implementation stage of information systems development.

This modelling method works quite well with what Keen and Scott Morton called structured tasks, which can be fully automated. But it is difficult to apply it to the semi-structured tasks of Decision Support Systems, where professionals and managers interact with the computer. And it does not seem possible to model unstructured tasks, which Keen and Scott Morton said cannot be automated because they require intelligence and intuition.

Regarding semi-structured tasks, in the late 1970s, IBM's principal management information tool was based on A Programming Language (APL), which contains systems functions to dynamically change passive data into active and vice versa. It is not good programming practice to write programs in this way. But the facilities are available in APL if software developers choose to use them.

This ability of functions in stored-program computers to dynamically create new functions, execute them, and then delete them led me to realize that this is the key to answering Alan Turing's famous question "Can machines think?", asked in an article in *Mind* in 1950. I thus rephrased this question to, "Could a machine program itself without a human telling it how to do so?" If not, why not?

While pondering this question on Sunday, 27th April 1980, as I was strolling across Wimbledon Common to the pub for lunch, something happened to me that cannot be explained in terms of the prevailing scientific worldview. It can only be understood in terms of the mystical worldview, recognizing Ineffable, Formless Consciousness as Ultimate Reality, called *Satchitānanda* in Sanskrit, meaning 'Bliss of Absolute Truth and Consciousness'.

So I can explain what happened to me in terms of the Akashic paradigm being developed by the systems philosopher Ervin Laszlo, not in terms of the existing laws of physics, using *Akasha* to refer to the Universal Quantum Field. Vivekananda said in *Raja Yoga*: "Everything that has form, everything that is the result of combination, is evolved out of this *Akasha*. ... Just as *Akasha* is the infinite, omnipresent material of this universe, so is this *Prana* the infinite, omnipresent manifesting power of this universe." *Prana* is the creative power of Life, emerging from the Æther or Divine, Cosmic, Immortal Ground of Being, like a bubbling fountain.

At the time, I told my friends that it felt that a dam wall had burst in my psyche, releasing an abundance of creative energy that had been held back by being brought up and educated in a dysfunctional society at war with itself. I subsequently likened this life-changing event to a tsunami, destroying everything that we humans had ever discovered about ourselves and the world we live in, enabling me to start afresh at the very beginning, using Self-reflective Intelligence to develop a coherent, self-inclusive map of the Universe as a Whole.

However, it is better to say that a big bang erupted at the black hole in the utmost depth of the Cosmic Psyche, enabling the Logos—the immanent and rational conception of divine intelligence governing the Cosmos—to create a comprehensive conceptual model of the psychodynamics of humanity from conception to death, naturally explaining my own ontogeny and everyone else's.

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As I can see now, what happened to me on 27th April 1980 was the beginning of an apocalyptic death and rebirth process, not unlike what Neo went through in *The Matrix*. For *apocalypse* derives from Greek *apokalupsis*, from *apokaluptein* ‘to uncover’ or ‘to reveal’, from the prefix *apo* ‘from, away’ and *kaluptra* ‘veil’. So *apocalypse* literally means ‘draw the veil away from’, indicating the disclosure of the innermost secrets of the Universe, hidden from the mass of humanity over the millennia.

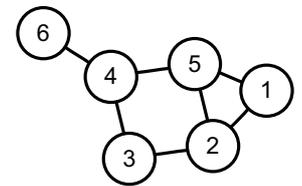


The first secret that was revealed to me was a radically new concept of causality. Isaac Newton had shown in the *Mathematical Principles of Natural Philosophy* in 1687 that for a body to accelerate a force must be applied to it. Society is not a body in motion. Nevertheless, is there some characteristic of society that is changing faster and faster? If so, what is it and could there be a force that is causing change in society to accelerate exponentially?

While pondering these questions, in a life-changing eureka moment, I had the idea that active and passive data are causal, like kinetic and potential energy in mechanics, from Latin *dare* ‘to give; cause’. In humans, active and passive data are our skills and knowledge, respectively. As Gilbert Ryle pointed out in *The Concept of Mind* in 1949, human knowledge can be considered both as the facts we know and the skills we know how to perform; we ‘know that’ and we ‘know how’.

There are thus nonphysical, mental energies at work in the Universe as well as the four forces recognized by physicists: electromagnetic, gravitational, and strong and weak nucleic forces. However, in itself, this idea did not explain what it is that is accelerating. Neither did it enable me to develop an integral theory of causality, unifying the psychospiritual and physical energies at work in the Cosmos.

Accordingly, in October 1980, I wrote to the physicist David Bohm at Birkbeck College in London, whose book *Wholeness and the Implicate Order* had just been published. At our first meeting the next month, Bohm explained that the concept that unifies all types of energy in the Universe is *structure*, consisting of meaningful *relationships* between *forms*, which can be depicted in a mathematical graph, like this, which Leonhard Euler had introduced into mathematics in 1736.



The abstract notion of structural energy based on relationships, called fields in physics, enabled me to define evolution in all its forms in this way: *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.*

So what is accelerating in society today, as for billions of years before, is the complexity of structure. Structures, empowered by Life, contain the synergistic energy within them to beget ever more complexity in a process that the scientific mystic Pierre Teilhard de Chardin called ‘complexity-consciousness’: the greater the complexity, the greater the consciousness. Eventually, as he foresaw in *The Human Phenomenon*, written in the late 1930s, all the diverse strands of evolution will converge in a megasynthesis of everything, which he called evolution’s Omega Point, when Alpha and Omega become unified in Wholeness, which Teilhard called Christ, synonymous with Impersonal Buddhahood.

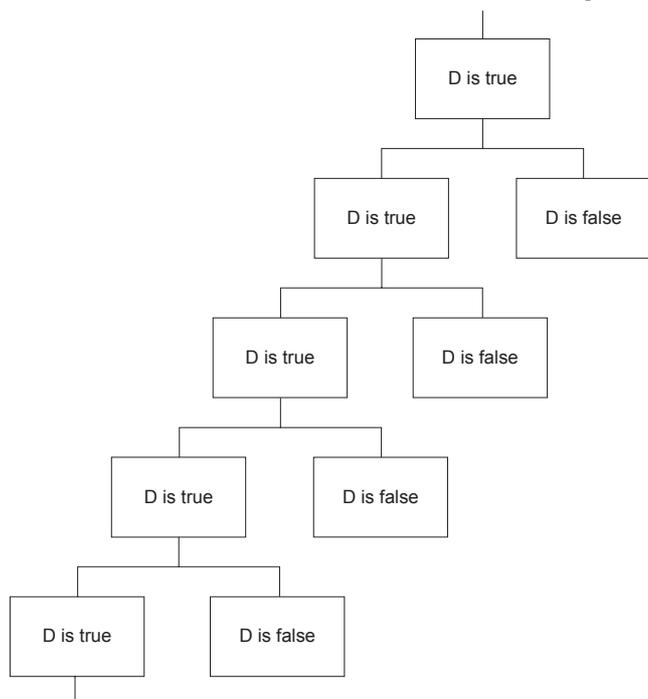
In *Holism and Evolution* in 1925, Jan Christiaan Smuts, a former prime minister of South Africa, called this entire evolutionary process *holism*, from Greek *ὅλος* ‘whole, with a Proto-Indo-European (PIE) base *sol- ‘whole’, also root of *safe* and *catholic* ‘relating to the Whole’. In summary, “The whole-making, holistic tendency, or Holism, operating in and through particular wholes, is seen in all stages of existence,

and is by no means confined to the biological domain to which science has hitherto restricted it. ... Wholeness is the most characteristic expression of the nature of the universe in its forward movement in time. It marks the line of evolutionary progress. And Holism is the inner driving force behind that progress.”

This integral theory of causality thus shows that all beings in the holographic Universe are interconnected in Wholeness, resolving the incompatibilities between relativity and quantum theories, which have the properties of continuity, causality, and locality, and noncontinuity, noncausality, and nonlocality, respectively.



A second hidden secret of the Universe was revealed to me around midsummer 1980. On 20th May that year, the day after resigning from my marketing job with IBM, I wrote at the top of a blank sheet of paper to represent my mind as a *tabula rasa* ‘clean slate’, ‘Paul’s Folly: A New Model of the Universe’. I began with the concept of set, the most fundamental of all mathematical concepts, used to collect similar data patterns into groups according to the attributes that distinguish them. As I was later to discover, this equalitarian approach to concept formation is essentially the same as that which Bohm used to bring order to quantum physics: by “*giving attention to similar differences and different similarities*”, a notion of order that the artist Charles Biederman had given him.



After playing around with sets and truth tables in the propositional calculus for a few weeks, I wrote this statement, proposition *D*, for the Principle of Duality, also inspired by the principle of duality in Boolean algebra and projective geometry: *A complete conceptual model of the Universe consists entirely of dual sets.*

I then drew this diagram, which blew my mind. For I realized at once that I had been given the key that would unlock all the innermost secrets of the Universe: what it is, how it is designed, and what it truly means to be a human being in contrast to machines, like computers. For the circumstances when *D* is false is opposite to those when it is true, proving it to be true in all possible situations. I had been given an irrefutable, universal truth, which led

me to the Absolute Truth in October 1983.

For one day that month, I forget which, I realized that I could form the concept of the Absolute by using the Principle of Duality and Bohm’s method for bringing order to quantum physics. Until then, I had just been mapping structures in the relativistic world of form. But if a map of the Universe is to be complete, it must also include its opposite: the Formless Absolute, which I call the Datum, from Latin *datum* ‘something given’, the fundamental concept of the data-processing industry.

The concept of the Absolute is very simple. Viewing it as a single being, in itself, it differs from all other beings in the Universe because, unlike them, it is has no borders or boundaries; it is a seamless continuum. This is obvious from the word *define*, which comes from the Latin *dēfinīre* ‘to limit’ or ‘to end’.

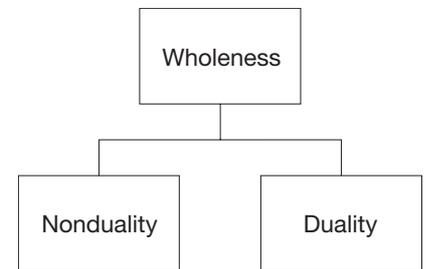
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The Absolute is thus indefinable and unanalysable, giving it the qualities of both transcendence and immanence with respect to any other being.

This was the first step in establishing God as a scientific concept, formed in exactly the same way as all other concepts. However, this was just a cognitive understanding. Although I was frequently having mystical experiences of oneness with the Cosmos, it was to take another twenty years before God became an experiential concept in the mountains of Norway and the forests of Sweden. For in the early years of this century, the sense of myself as a separate being disappeared completely, in what Zen Buddhists call *satori* or *kensho* moments, which I experienced as a form of catharsis.

Having established the Absolute Truth or Nondual Wholeness as a scientific concept in my own experience, the Principle of Duality, applicable only in the relativistic world of form, became the Principle of Unity, the fundamental law of the Universe, underlying all other laws. This irrefutable, universal truth can be expressed in just seven words: *Wholeness is the union of all opposites*. In other words, in Reality, opposites are never separate from each other, whether they be complementary or contradictory and paradoxical.

But Wholeness is not just Unity in itself. It also embraces the aggregate of all beings, as the Totality of Existence. This relationship can be most simply depicted in this diagram, not unlike Hegelian logic. If Nonduality and duality are the thesis and antithesis, respectively, then Wholeness is the synthesis. In Buddhism, this is described as the union of *Nirvāna* ‘extinction’ and *samsāra* ‘journeying’, as the tensions between opposites simply dissolve in the Bliss of Consciousness.



So, as the ever-present basic law of the Universe, the Principle of Unity is not a new idea. Heraclitus of Ephesus called this universal truth the ‘Hidden Harmony’, hidden because he was well aware that his contemporaries did not understand that opposites are never separate. Aristotle, in particular, disliked the Hidden Harmony, writing in *Metaphysics*, “It is impossible for the same attribute at once to belong and not to belong to the same thing and in the same relation ... as some imagine Heraclitus says.” This statement is known today as the Law of Contradiction, the implicit axiom for deductive logic and mathematical proof, sending Western thought into the evolutionary cul-de-sac it finds itself in today.

This widespread rejection of the most fundamental law of the Universe is essentially a psychospiritual problem. For we tend to base our sense of identity, and hence security, on our bodies, minds, and souls, creating divisions where none exist in Reality, not knowing that our True Nature, Authentic Self, and Genuine Identity is Wholeness, from Latin *idem* ‘same’. No one can return Home to Wholeness because nobody has ever left Home.



Carl Gustav Jung understood this as well as any depth psychologist in the twentieth century. He based his healing process of individuation ‘undivided being’ on those teachings where the Hidden Harmony is embraced, such as Taoism, spiritual alchemy, and Nicholas of Cusa’s *coincidentia contradictoria*, encouraging his clients to draw mandalas to denote their progress back Home to Wholeness. I particularly enjoy this *Harmony Mandala*, drawn by Vikki Reed of Arizona in 2005, integrating symbols from nine different cultures from East and West.

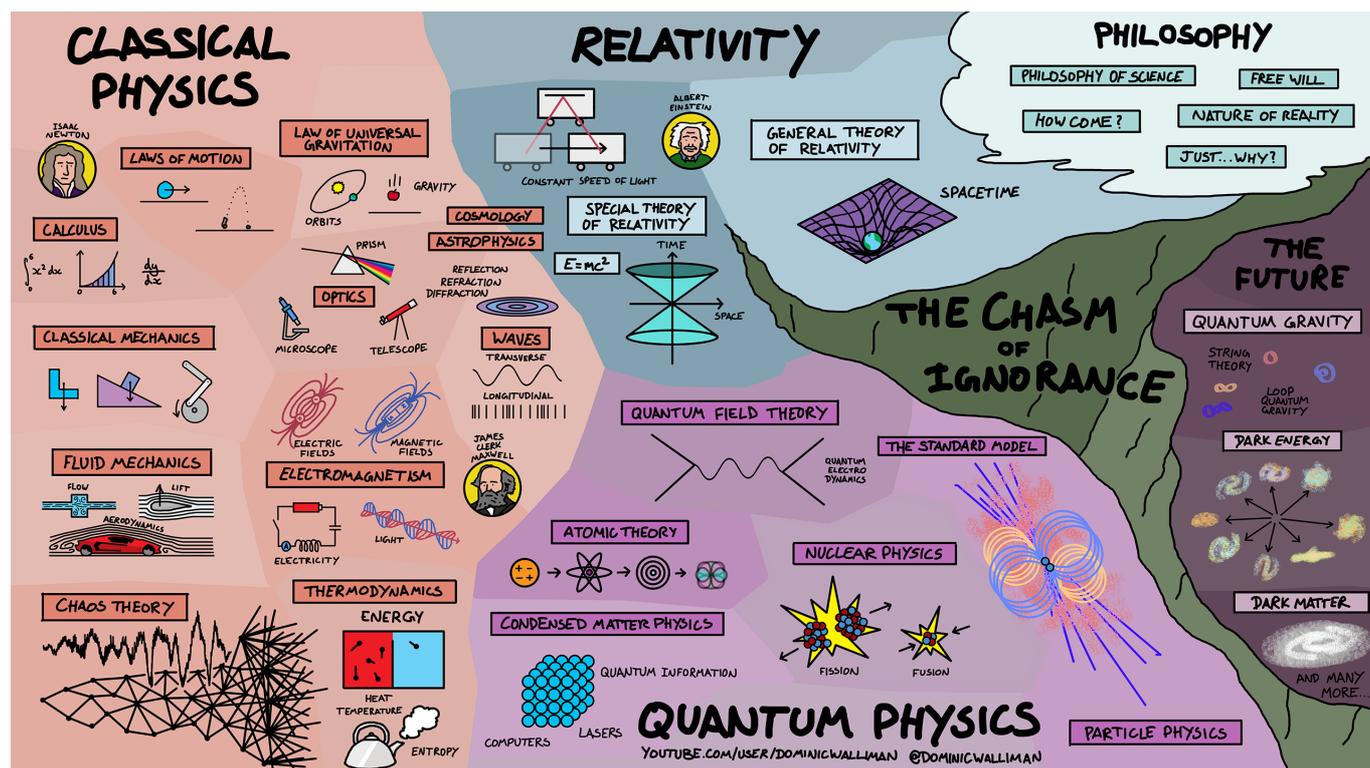
So is it possible for communities to collectively make the radical change from conflict-ridden, either-or thinking to a peaceful and cooperative both-and approach to life?

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Well, I've recently discovered through a friend of mine in Stockholm that Tim Freke, a spiritual philosopher in England, is making a major contribution in this direction. In *The Mystery Experience: A Revolutionary Approach to Spiritual Awakening*, Tim points out that we live in a profoundly paradoxical world, so mechanistic, linear logic cannot help us to live in harmony with the basic law of the Universe. He has therefore coined the term *paralogical thinking* to denote our explorations of the utmost depths of existence, not obvious when we live superficial lives. As he says, "We see the paradoxity of something when we understand it from two opposite perspectives at once." Tim aptly uses the simple word *WOW* to denote such an awakened state of being, for there is nothing more wonderful in human existence. Not surprising, this is something "everyone is searching for", as he says.



Now while mystics, spiritual seekers, and depth psychologists are generally aware that opposites are never separate, sometimes expressing their insights in the most beautiful poetry, scientists and technologists, still holding on to a materialistic, mechanistic worldview, inappropriate for our times, rarely understand the profound mysteries of existence. As a consequence, there are multitudes of unanswered questions in science that can only be answered by paralogical thinking. To answer them, it is necessary to engage in self-inquiry to dive into the chasm of ignorance that Dominic Walliman presented in this map of physics in a YouTube video on 27th November 2016.



This is not just a matter of developing a worldview that can explain such phenomena as dark matter and dark energy. Far more importantly, we need to look inside ourselves to understand the root causes of conflict and suffering so that we can live in love, peace, and harmony for as long as there are humans dwelling on our beautiful planet Earth.

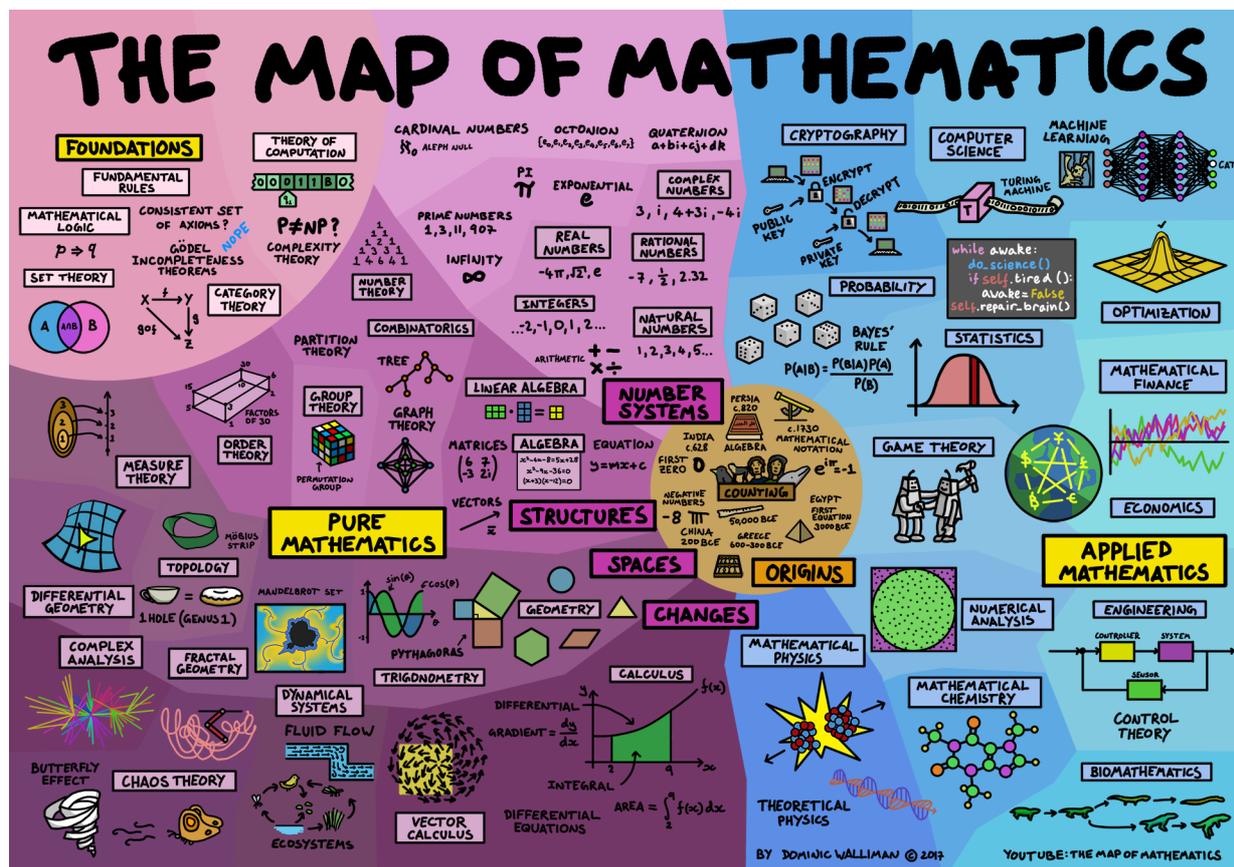
Albert Einstein addressed this crucial issue in an address at the fifth Nobel anniversary dinner in New York on 10th December 1945, when he said, "The war is won, but the peace is not. The great powers, united in fighting, are now divided over the peace settlements." Then in an article titled 'The Real Problem Is in the Hearts of Men', published in the *New York Times Magazine* on 23rd June 1946, he

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wrote: “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.’” He then went on to write, “Past thinking and methods did not prevent world wars. Future thinking *must* prevent wars.” To paraphrase, we can only intelligently adapt to our rapidly changing world by recognizing that you cannot solve a problem with the mindset that created it.

I call the paralogical system of thought that enables me to use Self-reflective Intelligence to map the psychodynamics of society, including myself, Integral Relational Logic (IRL), the union of two sciences of the mind, reason, and consciousness: holographic mathematical logic and depth psychology. The former has evolved from the abstract modelling methods that underlie the Internet, particularly Ted Codd’s relational model of data of 1970 and object-oriented modelling methods, which have evolved from the Simula programming language, developed at the Norwegian Computer Centre in the mid 1960s.

Integral Relational Logic is the commonsensical art and science of thought and consciousness that we all use everyday, mostly unknowingly, to form concepts and organize our ideas in tables and semantic networks or mathematical graphs. As such, it lies beneath the foundations of mathematics, depicted in the top left-hand corner of this map of mathematics that Dominic Walliman presented on YouTube on 1st February 2017.

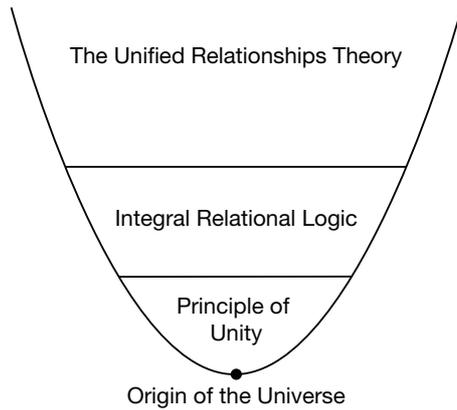


In turn, Integral Relational Logic provides the Cosmic Context, Gnostic Foundation, and coordinating framework for the Unified Relationships Theory (URT), also called Panosophy, the complete synthesis of science, philosophy, and religion, of all sciences and humanities. Panosophy is the transcultural, transdisciplinary discipline that heals the fragmented, split mind in Wholeness.

As such, it exists in the psyche, not externally as a set of propositions and equations, expressed in language, which come as a secondary process. For, as Bohm pointed out, *theory* derives from the Greek *theoria*, which has the same root as *theatre*, in a word meaning ‘to view’ or ‘to make a spectacle’. As he said,

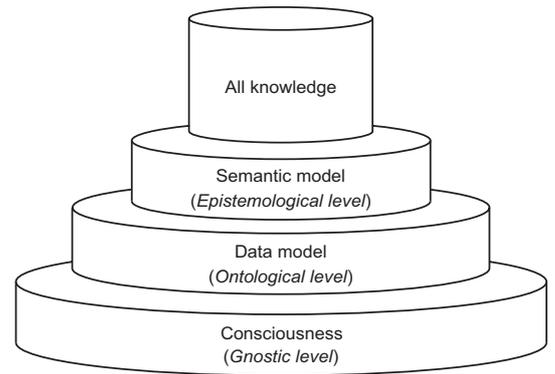
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“thus it might be said that a theory is primarily a form of insight, i.e. a way of looking at the world, and not a form of knowledge of how the world is.”



This culminating cosmology of cosmologies has not evolved directly from any previous cosmologies, as this diagram illustrates, establishing Integral Relational Logic, as mystical psychology, as the primary science on which all other disciplines of learning are based. Rather, it has emerged through the Divine power of Life directly from the Origin of the Universe, like you, me, and everything else in the relativistic world of form.

This next diagram provides another way of depicting the structure of all knowledge, using metaphysical concepts to illustrate how the Internet is built. The Internet contains ‘all knowledge’ in symbolic or signate form, based on a set of transcultural, transdisciplinary modelling methods of the utmost generality and abstraction, which are holographic and fractal-like, possessing the property of self-similarity. If this were not the case, the Internet could neither exist nor expand at hyper-exponential rates of acceleration.



First, we develop knowledge about knowledge, which corresponds to the semantic models that information systems architects develop and epistemology ‘study of knowledge’. For *epistemology* derives from Greek *epistēmē* ‘knowledge’. This is similar to the systems catalogue in relational database management systems, which contains information about information.

Beneath this semantic metamodel is a model of the meaningless data patterns of existence, as beings, prior to interpretation by an intelligent being. This ontological model shows that the underlying structure of the Universe is an infinitely dimensional network of hierarchical relationships, which emerge from Consciousness. And at the mezzanine level, between the Gnostic and ontological levels, lies the Hidden Harmony, which applies as much to the Absolute as to the relativistic world of form.



But how do I communicate this solution to the ultimate problem of human learning, which has long been sought over the centuries and millennia, to a sceptical public that is mostly unprepared to receive and accept it? In a sense, this a nonsense question, for I am Wholeness, like everyone else, transcending the categories, including those of communicator and receiver. So to communicate Wholeness, all we need to do is silently look into each other's eyes, knowing that our life's work is done, bursting into laughter in mutual recognition.

However, few have yet engaged in what Stanislav Grof calls holotropic thought, meaning both turning towards the Whole and transforming the Whole, from Greek *trepo* ‘to turn’, also the root of *entropy* ‘in transformation’. This is a critical situation, for as Stan has said in a YouTube video titled ‘The Root Cause of the Global Crisis’, such a holotropic psychology is essential for the survival of the human species.

As we enter the dual and dualistic world of form from Nondual Wholeness, the first step to take is the recognition that opposites are never separate in Reality. This is easy to say but very difficult to put into practice in society, as it exists today, for it requires the practitioner to become a full-blown mystic,

experientially free of the sense of a separate self, with no borders anywhere. This is the only viable starting point for communications between people, which even in small communities we are far from realizing.

Nevertheless, perhaps we could solve this tricky communications problem by understanding how the prevailing culture views what is today called the Theory of Everything, which is what the Unified Relationships Theory is, as a generalization of Einstein's unified field theory. Specifically, Wikipedia has three principal articles on the subject, looking at it from a scientific, philosophical, and spiritual perspective, beginning with these words:

- A **theory of everything (ToE), final theory, ultimate theory, or master theory** is a hypothetical single, all-encompassing, coherent theoretical framework of physics that fully explains and links together all physical aspects of the Universe. Finding a ToE is one of the major unsolved problems in physics.
- In philosophy, a **theory of everything** or **ToE** is an ultimate, all-encompassing explanation or description of nature or reality. Adopting the term from physics, where the search for a theory of everything is ongoing, philosophers have discussed the viability of the concept and analyzed its properties and implications.
- *A Theory of Everything: An Integral Vision for Business, Politics, Science, and Spirituality* is a book by Ken Wilber detailing his approach to building a conceptual model of the World that encompasses both its physical and spiritual dimensions. He posits a unified ground-of-everything he calls Spirit.

Taking the last of these three first, Ken calls the coordinating framework for his integral philosophy AQAL, short for "all quadrants, all levels", which is short for "all quadrants, all levels, all lines, all states, all types", the basis of what he calls a Superhuman OS, for operating system. AQAL is a two-dimensional example of the multidimensional Cross of Duality in Integral Relational Logic and therefore not all encompassing. Like AQAL, IRL is an Integral Operating System (IOS) in Ken's terms, able to manage all such systems, including itself, more like IBM's Virtual Machine (VM), which can run many different operating systems, including itself, than Microsoft's Windows or Apple's MacOS, which are akin to AQAL.

However, he is rather sceptical whether the genuine theory of everything is actually possible. In *A Theory of Everything*, he writes:

This book is a brief overview of a Theory of Everything. All such attempts, of course, are marked by the many ways in which they fail. The many ways in which they fall short, make unwarranted generalizations, drive specialists insane, and generally fail to achieve their stated aim of holistic embrace. It's not just that the task is beyond any one human mind; it's that the task is inherently undoable: knowledge expands faster than ways to categorize it. The holistic quest is an ever-receding dream, a horizon that constantly retreats as we approach it, a pot of gold at the end of the rainbow that we will never reach.

Ken then goes on to ask, "So why even attempt the impossible?" To which he replies, "Because, I believe, a little bit of wholeness is better than none at all, and an integral vision offers considerably more wholeness than the slice-and-dice alternatives." He seems to be saying here that Wholeness is like an asymptote in mathematics, which can be approached but never reached in finite time. If so, he is confusing the *infinite* and *transfinite*, which is ever-present, transcending the categories.

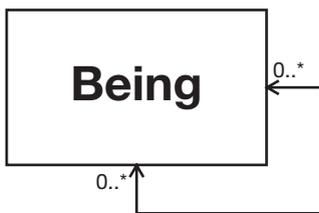
Regarding a philosophical theory of everything, Lorenz B. Puntel seems to have made the most progress here, working since the late 1970s, when I also began my studies, on what he calls structural-systematic philosophy (SSP). He has written two books on his method in the last ten years, titled *Structure and Being: A Theoretical Framework for a Systematic Philosophy* and *Being and God: A Systematic Approach in Confrontation with Martin Heidegger, Emmanuel Levinas, and Jean-Luc Marion*, neither of which is available in any Swedish university library.

Alan White, the Mark Hopkins Professor of Philosophy at Williams College in Williamstown in Massachusetts, has translated these books from German, extending and summarizing them in *Toward a Philosophical Theory of Everything (TAPTOE)*. Although I have not had a chance to study these books in

any detail, he makes a couple of important philosophical points in his book. A philosophical theory of everything is one in which the subject matter is the *unrestricted* universe of discourse. The theory of everything cannot therefore be developed within limiting science, as it is understood today, for “contemporary physics has as its subject matter a *restricted* universe of discourse.”

So, although the SSP is the universal science, it does not claim to be a *final* theory. As Alan White says, the SSP modestly aims to be the best currently available systematic philosophy, hence the best currently available philosophical theory of everything, acknowledging that it may someday be supplanted by a superior theory, indicating how that supplanting would be accomplished. In contrast, the Unified Relationships Theory *is* the final theory, for it takes conceptual abstractions to the utmost level of generality, even more general than abstract and universal algebra.

However, Alan White emphasizes “that although this philosophical theory of everything is *holistic* in the sense of being comprehensive, it is not *imperialistic* in that it in no way aims to replace any of the non-philosophical sciences.” Therein lies the central problem in communicating the all-encompassing Unified Relationships Theory, which can be considered structural-systematic philosophy, applying reason to heal the cultural and collective split between science and spirituality, mathematics and mysticism, and East and West. So transdisciplinary Panosophy does not sit beside any specialist discipline of learning, for it embraces them all, something that non-generalists find very hard to accept.



I use this diagram to illustrate this dilemma, a generalization of the most abstract class model of business systems, in the notation of the Unified Modeling Language. It shows that all beings in the Universe are related to all other beings in zero to many different ways, some of which can be classified and some of which defy categorization and must remain a mystery. When I presented this diagram for the first time at a conference in Germany in 2005, the delegates looked at it in disbelief, not able to take in the incredible simplicity underlying the Universe.

To explain, **Being** is the superclass of all other beings in the Universe, the concept that lies at the core of Aristotle's *Metaphysics*. So **Being** includes everybody's individual beliefs, opinions, and theories as subclasses, for instance. But when I say this, people think I'm trying to make myself special, not understanding that, as a Panosopher, I am a generalist, like information systems architects in business, not a specialist. This is one of the principal reasons why I am still a social outsider, belonging to the Cosmos, as Wholeness, not a constricted coterie or tribe.

So what role does mathematics play in the development of the scientific theory of everything? Well, as Stephen Hawking tells us in *A Brief History of Time*, in his view the one possible unified theory is just a set of rules and equations, and “we have, as yet, had little success in predicting human behaviour from mathematical equations!” He then goes on to ask, “What is it that breathes fire into the equations and makes a universe for them to describe?”

This is a very good question, which we can answer when we find the simple, elegant question that can explain everything, which Stephen Hawking set out to discover as an undergraduate, as his biopic *The Theory of Everything* tells us. We can assume that he has not yet found this equation, for if he had, it would be headline news, reverberating around the world.

So what is this equation, which Einstein also sought at the core of his unified field theory, as the BBC told us in a 2005 drama documentary titled ‘Einstein's Unfinished Symphony’. Well, as the fundamental law of our paradoxical Universe states *Wholeness is the union of all opposites*, can we express the Principle of Unity in the language of mathematics? Indeed, we can. Here it is, which I call the Cosmic Equation, the

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Philosophers' Stone, Holy Grail, and Apotheosis of human learning, hidden in the utmost depths of the Cosmic Psyche:

$$W = A = A \cup \sim A$$

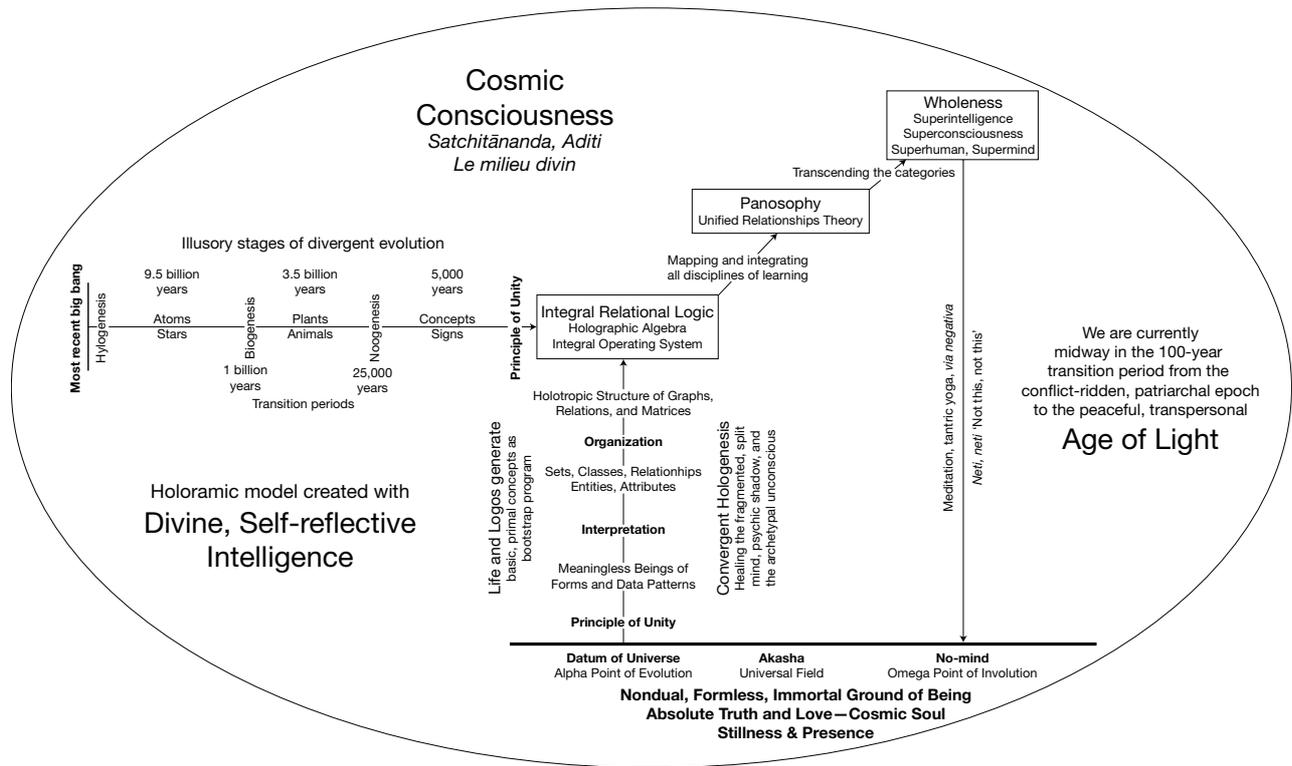
Stephen ends *A Brief History of Time* with this paragraph:

However, if we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question of why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason—for then we would know the mind of God.

Well, over the years, mystics have intuitively written many beautiful and eloquent expressions of the 'mind of God', which Gottfried Wilhelm Leibniz called the *philosophia perennis*, the esoteric teachings underlying all the religions. Similarly, Isaac Newton, Leibniz's rival claimant as the first to discover the infinitesimal calculus, long searched for *prisca sapientia*, the pristine wisdom known to the ancients, as it was called during the Humanistic Renaissance.

As none of us is ever separate from the Divine, many millions of people are awakening to this fundamental principle of human existence around the world today, each in their own unique manner. So it should be possible for spiritual seekers, at least, to understand the following diagram which outlines the Grand Design of the Universe, depicting the relationships between its major components, as we humans experience them, showing that evolution is currently transforming the horizontal dimension of time into the vertical in the Eternal Now, where we can be free of the existential fear of death in all its forms.

The Grand Design of the Universe Revealed by Conscious Evolution



To see how our lives together could evolve in the years to come, I prefer to use Teilhard's four-stage model of evolution, explored in some detail in my 2016 book *The Four Spheres: Healing the Split between Mysticism and Science*, rather than the nonlinear mathematics of chaos theory, illustrated in the diagram on the first page. The table on the next page outlines these four evolutionary stages and the transition stages between them, using science's best estimates of their beginning, end, and hence duration.

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Evolutionary stages, years ago						Transition stages, years ago		
Teilhard	Type	Realm	Start	End	Duration	Start	End	Duration
Prelife	Physical	Hylosphere	14,000,000,000	4,500,000,000	9,500,000,000	4,500,000,000	3,500,000,000	1,000,000,000
Life	Biological	Biosphere	3,500,000,000	25,000	3,500,000,000			
Thought	Mental	Noosphere	5,000	55	5,000	25,000	5,000	20,000
Superlife	Spiritual	Numinosphere	-45	-295	250	55	-45	100

Gathering as much evidence as I can from the insights of people in the world around me, I have seen for the past ten years or so that that we have just passed the middle of a 100-year transition period between what we can call the mental-egoic age (the self-centred me-epoch, focused on conflict and competition) and the age of universal spirituality (the socially centred us-epoch, focused on peace and cooperation). We can say that this radical transformation of consciousness began with the counter-cultural movements of the 1960s, symbolized by ‘flower power’, leading us out of the Dark Ages into the eschatological Age of Light. However, with a resurgence of divisive nationalism in the world today, threatening to blow us all up, it is more difficult to be optimistic about even our children’s prospects.

A number of visionaries have published their insights on the outlook for humanity. For instance, the futurist John Petersen, founder of the Arlington Institute in 1989, described what could happen in the immediate future in an interview in the *What Is Enlightenment?* magazine in July-September 2007, with the title ‘The End of the World As We Know It?’:

As far back as 1986, I figured out that there was a whole string of potential events that were converging and could result in major disruption within twenty-five years. Around the same time, I discovered the work of Chet Snow and Helen Wambach who together wrote a book, *Mass Dreams of the Future*, based on their work doing remote viewing exercises [clairvoyance under hypnosis]. They asked twenty-five hundred people to envision the United States in the year 2030. About eighty-five percent of them reported the same thing: It’s a place with no government, divided politically into four quadrants, and everyone is living in small communities, some of which are defensive and full of guns and others where people cooperate and work together.

In a similar manner, Guy McPherson said in a YouTube interview with Andrew Harvey, who wrote the foreword to *Extinction Dialogs: How to Live with Death in Mind*, co-authored with Carolyn Baker, “I’m a conservation biologist. I knew a long time ago that humans would go extinct. I didn’t know that I would be part of the last; that I would be here at the end of the show.” Andrew responded to Guy’s wry words in this way:

There is a huge gift in this apocalyptic situation to us all, and that is that it makes absolutely clear the impermanence and precariousness of everything and bitch-slaps the human ego finally, and destroys all illusions, and that can lead to paralysis, despair, inertia, horror. Or it can lead to a fundamental commitment to uncover inner Divine Consciousness and act from that with peace and joy and compassion, giving up the fruits of action, come what may. And that form of action is actually liberation. So there is a way in which the situation is the perfect cauldron for the liberation of the human race from its fantasies. We will be born in our death.

In the book, Carolyn, a Jungian psychotherapist, wrote these words, “I realized that the tentacles of empire reach so far into my own psyche and have entangled themselves so deeply that I am profoundly limited in the extent to which I can walk away, yet at the same time, I believe that we all must make every attempt to do just that.” Yes, indeed. For as J. Krishnamurti once wisely said, “It is no measure of health to be well-adjusted to a profoundly sick society.”

At the heart of our malaise is a pandemic of egoic, either-or thinking, caused by a cognitive and experiential split between humanity and Divinity, leading to delusion and schizophrenia ‘split mind’. Fragmented, either-or thinkers may consider anything they disagree with the enemy, including both-and paralogical thinking, which leads to Wholeness. Even paralogical thinkers have this problem, when un-

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resolved psychological memories in the un- and subconscious pop up in daily dialogue. We can thus see why Barack Obama's attempt to conduct bipartisan politics, for the benefit of all, was viciously attacked.

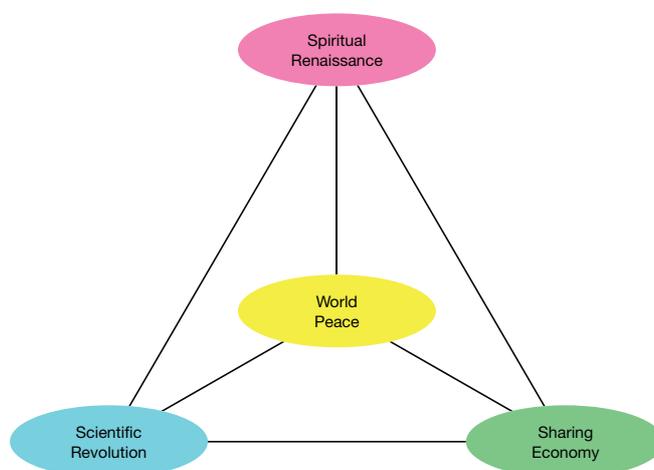
On a more positive note, in *A New Earth: Awakening to Your Life's Purpose*, Eckhart Tolle wrote, "We are a species that has lost its way," concluding this inspirational book with these words: "A new species is arising on the planet. It is arising now, and you are it!" But despite this book selling several million copies after Oprah Winfrey promoted it on her talk show in 2008, how many people are yet aware that they, themselves, are pioneering a radically new species?

It is vitally important here to distinguish *Homo noeticus*, the cognitive species that has dominated Earth for the 5,000 years of the patriarchal epoch, and *Homo sapiens* and *Homo divinus*, a spiritual species emerging today among Gnostics, consciously knowing the Divine in direct experience, as Richard Maurice Bucke foresaw in *Cosmic Consciousness* in 1901. So the death of Western civilization does not necessarily mean the death of the biological species *Homo sapiens*. There is still a chance that *Homo divinus* could become recognized during the 2020s, as our war-mongering, dysfunctional institutions, not intelligently adapting to our rapidly changing environment, disintegrate.

So it doesn't really help to be optimistic or pessimistic about humanity's prospects in hope or despair, for such attitudes are like living in a fool's paradise or hell. Rather, if we are to intelligently adapt to our rapidly changing world, we need to face reality with open eyes, solidly grounded in Reality.

For myself, with Guy McPherson, Professor Emeritus of Natural Resources, going around the world saying that *Homo sapiens* could become extinct by 2030, all I can do each day is enjoy myself as much as possible, writing pieces like this one, passionately pursuing a life of excellence, the inspiring slogan of Guy's website 'Nature Bats Last.'

To this end, I am seeking to end my long sojourn as an outsider, attracting people to join the Alliance for Mystical Pragmatics, for which I wrote a 28-page brochure last May, with the motto 'Harmonizing evolutionary convergence'. As the booklet indicates, the object is to integrate four major global movements in the world today into a coherent whole: Spiritual Renaissance, Scientific Revolution, Sharing Economy, and World Peace, their relationships being illustrated by this flattened tetrahedron.



As this article indicates, a major purpose is to complete the final revolution in science, fulfilling William James, Eugen Bleuler, and Carl Gustav Jung's dream, not only of establishing psychology as a coherent science, but also as the primary science, on which all humanities and sciences are built. This will happen when evolution becomes fully conscious of itself, which Barbara Marx Hubbard has called the 'Second Great Event' in the history of the universe, the first being the most recent big bang, which supposedly brought it into existence.

 This is the logo for the Alliance, denoting the fundamental law of the Universe that opposites are never separate, at the heart of paralogical thinking. This is the key to World Peace, creating social structures living in harmony with the Hidden Harmony, and answering a multiplicity of scientific questions that cannot be answered by linear, mechanistic systems of thought, such as used in algorithmic computers, out of touch with Reality.

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So trusting that the Universe is not playing a very cruel game with humanity, the Alliance is bound to take off one day, like a rocket reaching the escape velocity needed to be free of the pull of Earth's gravity. Such a sensational event could release an abundance of synergistic healing energy, the like of which has never been seen in the entire history of humanity, or, indeed, the Universe. In a great torrent of awakening energy, we would then rise far above our machines, recognizing that they, like our minds, are useful servants but dreadful masters.

All it needs for this miracle to happen is for a spark to ignite somewhere, enabling us to fulfil Teilhard's prophecy at the end of time: "The way out for the world, the gates of the future, the entry into the superhuman, will not open ahead to some privileged few, or to a single people, elect among all peoples. They will yield only to the thrust of all together in the direction where all can rejoin and complete one another in a spiritual renewal of the Earth."

We shall then be able to see that none of us is ever separate from God, Nature, or any other being as fully individuated beings, counteracting individualism and self-centeredness, currently becoming popular in some quarters as the patriarchal epoch disintegrates. Such a principle of interconnectedness lies not only at the heart of Ervin Laszlo's *What is Reality?: The New Map of Cosmos, Consciousness, and Existence*, it is also central to Huayan Buddhism, expressed in the monumental *Avatamsaka Sūtra* 'Flower Ornament Scripture', which well illustrates the mystical worldview that could guide our harmonizing, convergent activities.

A central notion in the *Avatamsaka Sūtra* is Indra's Net of pearls or jewels, each of which mirrors the brilliant light emanating from all the other jewels. As individuated beings, we are these jewels, both as distinct individuals and as the entire net, which ultimately dissolves in seamless Consciousness through an involutionary process. Indra's Net can thus be used as a metaphor for the holographic, fractal-like worldview emerging today.



Alan Watts likened Indra's Net to a dewy spider's web, saying, "Imagine a multidimensional spider's web in the early morning covered with dewdrops. And every dewdrop contains the reflection of all the other dewdrops. And, in each reflected dewdrop, the reflections of all the other dewdrops in that reflection. And so *ad infinitum*. That is the Buddhist conception of the universe in an image."

However, at the time of writing, it is not clear to me how the Alliance could take off, with so many preoccupied with their own projects in a multiplicity of groups, not yet able to see how they all relate to each other as a coherent whole. I am very well aware that many are overwhelmed by the breadth and depth of the Unified Relationships Theory, not easily able to relate to me as just an ordinary human being, albeit a specialist in Panosophy.

So how are the seven and a half billion people on Earth to make the necessary changes in their cognitive and Gnostic understanding to ensure our survival for as long as possible as a species? Well, while we are all unique beings, with our own particular propensities, there are two universal qualities that we all share, whether we are aware of this or not, represented by the Principle of Unity.

First, we all share the same Contextual Foundation for our learning, as the Absolute Whole. Secondly, we all use Integral Relational Logic to learn about ourselves and the world we live in, albeit mostly unknowingly. So all I am doing in my voluminous writings is expressing the perennial wisdom known to the ancients in the rational language of mathematics, computer science, and information systems architects in business. Let us then see what miracles might emerge in the illusory weeks, months, and years ahead.