

## SYSTEMS PHILOSOPHY<sup>1</sup>

Mansoor Vakili

**ABSTRACT:** Systems thinking is a holistic thinking which indicates that our planet is a self-organizing living system with inherent ability to sustain life, also, human being is interconnected and inseparable part of this living system. The main question is how human being which is the byproduct of an amazing creative process- from a single cell to current human- has seemingly lost this inherent ability and practices unsustainable activities?

The answer could be in Linear thinking and self-consciousness process:

In the early stages of human development human beings started to use their hands and vocal system to increase their ability to cooperate with each other. They used sign language for short-range communication and vocal projections for long-range communication. They mimicked the sounds that other animals made to attract harmless animals and distract dangerous ones. Combining sign language and vocal projections eventually created a subjective virtual world of information; an abstract concept, separated from real objects. The separation of subject from the object started us down the road to abstract thinking and the linear perception and thinking of self-consciousness. Thus, we have elusively experience ourselves as independent, separated from the living network. We therefore attempt to protect our separated self from the rest of the universe. [Linear thinking](#) ends up being self-defensive, self-protecting, self-assertive, dominating and sensitive to liability management violent events and negative news.

When we analyze human body as a living system we notice that subconsciously our brain is in full synchrony and corporation with our body network in performing any simple action. But consciously through linear logic our brain illusively separate itself from body network and exercises self-assertive, and dominant relationship with the network to satisfy its short-term desires and entertainments- could be addiction to sugar, coffee, drug, information or other-. Then we apply the same attitude in our relationship with earth, other species, and even among human network. which results in a dominate and competitive attitude toward the other

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members of the web of life.

The paradigm shift begins by recognizing that our brain is a living system capable of self-organizing according to the feedback loops provided by observing our thoughts and actions with the memes and values of the living system. Through this process our brain begins to acknowledge that the idea of a separated and independent self is only an illusion. It realizes that our self-existence, long term health and functionality require a sustainable relationship of cooperation and partnership with the body network and indeed with web of the life.

Digital age is characterized by exponential rate of change, uncertainty and trending away from predictability and stability toward the emergence of a new system. The emerging paradigm shift requires a holistic approach intrinsic to spiritual tradition, as well as to nonlinear theories such as quantum mechanics, systems theory, networking theory, chaos theory and fractal geometry. It will unify science and spirituality, right and left brain, masculine and feminine, and provide universal memes and values applicable to any relationship or process at any scale.

**KEYWORDS:** Living systems; Living universe; Nonlinear systems; Linear systems; Linear thinking; Systems thinking; Linear relationships; Systemic relationships; Network hubs; Living planet; Sustainability; Digital era; Emergence; Paradigm shift

The main goal of systems philosophy is to argue that we are residing in a self-organizing living system (our planet and the universe) with an inherent capability to sustain life. Living systems are cognitive systems with an inherent tendency to structure themselves in nonlinear network patterns capable of performing highly complex functions with minimum effort. There is a deeper simplicity within the living world. Observations suggest that humans have developed two different perceptions, thinking (logic), and relationships. Linear thinking which started with human self-awareness process is analytical, deterministic, judgmental, reductionist, masculine and materialistic, while nonlinear thinking (systems or networking thinking) is intuitional, observant, nonjudgmental, holistic, feminine and spiritual.

Human beings are an interconnected and inseparable part of this non-linear living system, but when we participate with linear relationships -which is rooted in our linear perception, and thinking- in a nonlinear living world our practice becomes unsustainable. First, we practice this unsustainable linear relationship in our body network, then we practice it in human network and any other networks - like our planet network- that we are engaged with. The nonlinear nature of the digital era is an indication of the emergence of the planets ongoing process of self-awareness and self-organization. For humanity to synchronize with this process we must simply look to systems theory, network theory, and mystic tradition (which provide the essential and universal behavioral patterns-relationships- of living systems) as guidelines for

harmonic and creative relationship with our living planet and living universe. To further understand this, we will explore the following topics:

- Linear and non-linear systems: what kind of systems are called living systems?
- Do nonlinear theories support the notion of our planet and universe as a living system?
- What are the components of the living universe and how can it make such complexity through simple actions?
- The process of Human self-consciousness and development of linear, analytical, thinking and linear perception.
- Is the Digital age a transformation era?
- Systemic observation of the process of a paradigm shift and the human body as a living systems metaphor
- Our brain is a self-organizing living system
- How can the Internet as a self-sustainable network provide guidelines for the process of sustainability in the human network?

#### I. LINEAR AND NON-LINEAR SYSTEMS: WHAT KIND OF SYSTEMS ARE LIVING SYSTEMS?

According to systems theory living systems are structured in nonlinear network patterns. Nonlinear systems (networks) perform far away from equilibrium at the chaotic zone while linear systems (networks) perform at equilibrium with local stability. Consequently, linear systems or equations, become predictable and modular in such a way that they can be broken into pieces. Each piece can be analyzed separately and solved, and all the separate answers can be recombined (latterly added back together) to give the correct answer to the original problem. In linear systems, the whole is exactly equal to the some of the parts, and causes are proportional to effects.

Nonlinear systems perform at the chaotic zone to become self-organizing emerging systems with fractal dimensions in such a way that the behavioural patterns of the elements and the whole system are in synchronization. All members of nonlinear networks implement their assets in cooperation and partnership to achieve the long-term goals of the whole network, creating a whole that is greater than the sum of the parts. The nonlinear process creates a cognitive system with a higher level of functionality, information content, efficiency, and creativity. Nonlinear systems are emerging systems with a high level of interdependency, inter-connectivity and unpredictability that operate at the chaotic zone where there is no proportionality between cause and effect.

In alignment with the basis of these two different models, human minds have developed linear and nonlinear perception and eventually linear thinking (or logic) and nonlinear thinking (systems thinking or network thinking). To define the essential characteristic of these perceptions and their corresponding logic we need to examine their mathematical forms further. As explained in Chapter 6, “the mathematics of complexity” of “The Web Of life” by Fritjof Capra, the shift from linear mathematics to nonlinear (or systems dynamic) mathematics is a shift from object to relationship, from substance to pattern, and from quantity to quality. In addition, since we are dealing with a dynamic system it is a shift from rigidity to flexibility (most notable in the topological equivalent of the shapes compared to Euclidian equivalent). Furthermore because of the universality and multidisciplinary of self-organizing process and its fractal nature, it is a shift from complexity to simplicity which has been explained in following paragraph,

“In the world of linear equations, we thought we knew that systems described by simple equations behaved in simple ways, while those described by complicated equations behaved in complicated ways. In the nonlinear world-which includes most of the real world, as we begin to discover-simple deterministic equations may produce an unsuspected richness and variety of behavior” (Fritjof Capra, page 123, *The Web Of Life*).

We have discovered that the behavior of chaotic systems is not merely random but shows a deeper level of pattern structured order guided by its own strange attraction. Therefore, the above universal characteristics of nonlinear systems which we summarized as creativity, efficiency, qualitative, simplistic, flexible and cognitive, can function as the strange attractors of the nonlinear digital era. The paradigm shift should be consistent with the characteristics of behaviors of living systems.

## 2. DO NONLINEAR THEORIES SUPPORT THE NOTION OF OUR PLANET AND UNIVERSE AS A LIVING SYSTEM?

Our observations indicate that all-natural phenomena, including vegetation, clouds, coast lines, galaxies, etc., have fractal shapes. The fractal is the geometry of chaos, which is the zone where the self-organizing process of living systems takes place. Furthermore, the universe is essentially made of dancing energy and information that both behave nonlinearly (according to quantum mechanics and the Internet as an informational network), which is consistent with the behavioral pattern of living systems.

There is a long tradition of using pinnacles of science and its corresponding technology as a metaphor for the universe. In ancient Greece, geometry, surveying

equipment and musical instruments were the science and technological wonders of the age, and Greeks regarded the cosmos as a manifestation of geometric relationships and musical harmony. In the mechanistic science of the seventeenth century, clockwork was some of the most complex technology, and Newton described a deterministic clockwork universe, with time as an infinitely precise parameter that gauged all cosmic change. In the nineteenth century, with advancements in thermodynamics and entropy, and development of the steam engine, Clausius, Von Helmholtz, Boltzmann, and Maxwell described the universe as a gigantic entropy-generating heat engine, sliding inexorably to a cosmic heat death. The last decades have been dominated by the development of computer science and information technology, resulting in the proposition of the metaphor of the universe as a gigantic computer by Seth Lloyd, Gregg Braden, among others.

Now, the combination of nonlinear theories and advancements in bio-mimicry and digital technologies have provided a new metaphor of the universe as a living system. Even though Gaia theory has been accepted among some scientists since the 1970's, until now, recent advances in non-linear theories like quantum mechanics, networking theory and system theory have not been applied to our understanding of the Earth as a living system.

On the other hand, spiritual thinkers are paying less attention to Gaia theory and the emerging living universe metaphor, which is consistent with most spiritual traditions. If we can consider the wisdom traditions and mystical experiences as an inseparable part of human knowledge, then they are indicating that the universe is a living system too. Even monotheistic traditions believe that humanity is made as an image of the divine, therefore if we are a living system then the divine is a living system too.

### 3. WHAT ARE THE COMPONENTS OF THE LIVING UNIVERSE AND HOW CAN IT MAKE SUCH COMPLEXITY THROUGH SIMPLE ACTIONS?

Observations of the planet indicate that the universe can create amazing complex systems through simple actions and is made of dancing energy (as explained in the quotation below). The question is what type of information pattern is imbedded in the dancing energy that gives it cognitive and creative functions?

“This shift in paradigm thinking in science concerns a shift from thinking in terms of structure to thinking in terms of process. In the old paradigm, it was thought that there were fundamental structures, and then there were forces and mechanisms through which these interacted, which gave rise to process. In this old paradigm, it was the structure that determined the processes. In the new

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paradigm, we think that process is primary, that every structure we observe is a manifestation of an underlying process. This process thinking came into physics with Einstein's relativity theory. The recognition that mass is a form of energy eliminated the concept of a material substance from science, and with it also that of a fundamental structure. Subatomic particles are not made of any material stuff; they are patterns of energy. Energy, however, is associated with activity, with processes, and this implies that the nature of subatomic particles is intrinsically dynamic. When we observe them, we never see any substance, nor any fundamental structure. What we observe are dynamic patterns continually changing into one another – a continuous dance of energy.” (Fritjof Capra, page 330, *The Tao of Physics*.)

The dancing energy has a pattern of information that is everywhere. Each creature on Earth is composed of information; information sits at the center of our cells and rattles around in our brains. Every particle in the universe, every electron, every atom, every star, and each one of the countless galaxies in the heavens is packed full of information.

When dancing energy experiences local partial stability, it performs as particles. Due to the inherent information pattern that particles carry they can engage with other particles in a nonlinear manner to create self-organizing nonlinear networks. This type of organization provides them with fractal dimensions and the potential to sync with other members of the network to create a whole that has functionality and information content greater than the sum of its components. Every nonlinear network also has the same inherent tendency to engage with other networks to create larger nonlinear networks with highly advanced functionality and information content.

We observe this fractal hierarchy of networking processes which provides a universal cognitive process with unlimited creativity and efficiency from subatomic particles, molecules, proteins, cells, human organs and our body network, to the human, planet, solar, and galaxy networks. When we travel upward in this cognitive hierarchy we observe higher functionality at each tier and information content capable of guiding its sub-networks to achieve its cognitive goal. The higher knowledge that each network is creating acts as guidance for the network members. When we consider the earth as a living network it has greater knowledge and higher goals than those of its sub-networks, (like the human network) and it tries to communicate and guide the human network.

The nonlinear pattern of organization is the main source of the systems creativity and makes it capable of organizing itself in nonlinear network patterns without any central command, a web without spider. Or the spider could be the inherent patron of information that dancing energy carries with it (for more information on this universal

pattern see the *mathematical application*).

#### 4. THE PROCESS OF HUMAN SELF-CONSCIOUSNESS AND THE DEVELOPMENT OF LINEAR, ANALYTICAL, THINKING AND LINEAR PERCEPTION:

The partial stability and equilibrium of our immediate surroundings and the orderly natural cycles on the human scale have helped human beings to gradually develop a linear model of the world based on order and stability and eventually a linear logic (or thinking) which has been the dominant way of thinking, especially in the last two centuries. In the early stages of human development, human beings started to use their hands and vocal system to increase their ability to cooperate with each other. They used sign language for short-range communication and vocal projections for long-range communication. They mimicked the sounds that other animals made to attract harmless animals and distract dangerous ones. Combining sign language and vocal projections eventually created a subjective virtual world of information; an abstract concept, separated from real objects. The separation of subject from the object started us down the road to abstract thinking and the linear perception and thinking of self-consciousness. Thus, we have elusively experience ourselves as independent, separated from the living network. We therefore attempt to protect our separated self from the rest of the universe. Linear thinking is self-defensive, self-protecting, self-assertive, dominating and biased to liability management resulting in violence and negativity.

Linear systems are reductionist and deterministic systems which provide predictability and certainty, when we analyze an event we reduce it to a few dominant causes (the inherit tendency towards power law distribution always provides a few dominant causes in any event) and neglect most insignificant factors. Focusing on major factors of an event along with the proportionality of cause and effect in linear systems provides certainty and makes linear thinking a judgmental logic. When we are judging a person, or an event, the self-assertive and quantitative nature of linear thinking does not allow us to be observant and aware of those behaviors in our actions or value systems as long as they are quantitatively insignificant. Therefore, linear thinking does not give us a chance to cognitively enhance and purify our acts and values. In contrast, systems thinking is based on the behaviors of living systems that perform at the chaotic zone (where there is no proportionality of cause and effect), which makes systems thinking observant and nonjudgmental.

Linearity is an approximation to a nonlinear reality; order equips linear logic with predictability, determinism, certainty and a sense of control over outside events. Certainty provides a deterministic tool to make judgments that lead us to abstract

belief systems. Since our linear logic is based on the proportionality of cause and effect, the chaos and uncertainty in the nonlinear world highlights the non-proportionality of cause and effect and inconsistency of our linear judgment system, including our values and beliefs and having a sense of control over events. Therefore, linear logic has a negative attitude toward chaos and change while systems thinking embraces the chaos as a stage of creativity and emergence of a higher fractal order and self-organizing process. Also, certainty brings expectation and planning, when our plans don't manifest, and our expectations are not met, we become obsessed with closing doors and negativity rather than paying attention to the open doors and opportunities that this so called "failure event" provide us. Linear thinking with its defensive mechanisms codes our judgment system with fear, guilt, blame, anger, negativity, violence, hopelessness, and liability management, lowering the quality of information processing in chaotic events and challenges. This indicates the limitations and insufficiency of linear logic and signifies the necessity of a nonlinear logic and systems thinking to explain the nonlinear world.

It is very important to recognize that linear logic, reduction science and its corresponding technologies are incredibly useful tools that enabled us to achieve our current understanding of nonlinear science, the concept of the living universe, nonlinear logic, and even our realizations of its own limitations and liabilities. We use it successfully in all our routine activities, including communicating this article with its readers. The main purpose of this article is to unify linear and nonlinear thinking to achieve the ultimate potentials of our creative mind.

The perceptual shift from linear to nonlinear is a move from self-assertive to integrative, from rational to intuitive, from reductionist to holistic and from separation to connectedness. It also shifts our values, from consumption to conservation, from competition to cooperation, from quantity to quality, from domination to partnership, from rigidity to flexibility and from liability to asset management. It also shifts our state of mind, from negativity, blame, anger, revenge, violence and hopelessness to positivity, forgiveness, tolerance, peace and hope. As we shift from linear to nonlinear thinking we gain a greater ability to intuit as well as to process information analytically. Systems thinking provides a hopeful, creative, peaceful, ecologically harmonic framework to deal with a nonlinear, chaotic, digitally integrated world.

The human brain perceives and process linear and nonlinear information primarily in two different regions. As scientist Jill Bolte Taylore explains in her book *My Stroke of Insight*, our right-brain and left-brain hemispheres process information quite differently (Dividing the brain into the right and left sides is over simplification and is not a systemic approach, but the construct simplifies our discussion). The right side of our

brain primarily perceives and processes information in a nonlinear manner creating a model or perception of the world that is connected to the living web of life, while the left side primarily perceives and processes information in a more analytical, linear way, creating a model or perception that separates us from it. The right brain is observant, nonjudgmental, holistic, feminine and spiritual, while the left brain is analytical, deterministic, judgmental, reductionist, masculine and materialistic.

##### 5. IS THE DIGITAL AGE A TRANSFORMATION ERA?

Throughout the history of the universe the rate of change, or the time from one stage of complexity to the next shortens after each progression on an astronomical, planetary and biological scale. On the human scale, the recent integration of two fundamental components of the universe, information and energy, has created the digital era, which is now exponentially accelerating the pace of change. As a result, scientific understandings and technological advancements are progressing at an astounding rate. It used to take centuries for a paradigm shift, but in the digital era it can happen in years and in the near future it will happen much faster than what we have been witnessing in the last 20 years. Every two days, we now create as much information as we created between the dawn of civilization and 2003 (according to Google CEO Eric Schmidt). Recent applications of artificial intelligence are creating cognitive programs and devices that will accelerate this process.

Since we process all our social activities through the nonlinear web of the Internet, we are witnessing an exponential acceleration of the pace of change in society, culture, economy, theoretical science, technology and ultimately, the rules of the way life functions. Most activities of the human network (economy, environmental, political etc.) are becoming inseparable, interconnected, and interdependent with increased unpredictability, uncertainty and chaos which indicate the nonlinearity of the digital era, and potentiality the emergence of a self-organizing process.

To have a clear understanding of the nature of the current paradigm shift we could examine linear and nonlinear systems in its mathematical form to define their most essential characteristics.

##### 6. SYSTEMIC OBSERVATION OF THE PROCESS OF A PARADIGM SHIFT AND THE HUMAN BODY AS A LIVING SYSTEMS METAPHOR

When we analyze the human body as a living system which manifests itself in nonlinear network patterns we notice that it follows the uneven power law distribution: our brain which weights and occupies only five percent of our body network consumes twenty percent of our energy intake and has total control and domination over the

body network. We notice that subconsciously our brain is in full synchronicity and corporation with our body network when performing any simple action. But consciously through linear logic our brain illusively separates itself from the body network and exercises self-assertive, and dominant relationships with the network to satisfy its short-term desires and entertainments (could be addiction to sugar, coffee, drug, information or other.) Our brain can be so shortsighted that it is not humble enough to realize that its own long-term sustainability is connected to the well being of the body's entire network.

Then we apply the same attitude in our relationship with earth, other species, and even among the human network which results in a dominate and competitive attitude toward the other members of the web of life.

Our body network is a self-organizing, self-regulating, and self-healing sustainable living system, but due to the domination of linear thinking it becomes unsustainable (self-assertive addictions and tendency to focus on negativity and expectations which creates stress). Therefore, the rote of unsustainable practices of human beings is a relationship problem, and starts with behaving linearly in our nonlinear self-organizing body network first, and then we practice the same pattern of unsustainable relationships within the higher scale of living networks like the human network and our planet network. Therefore, the first step of the paradigm shift starts within our body network followed by practicing nonlinear relationships in any network that we are engaged with.

## 7. OUR BRAIN IS A SELF-ORGANIZING LIVING SYSTEM

Our brain, like any living system, is a self-organizing cognitive open system based on feedback, which seeks to optimize its hidden potential. As we become passionate and judgmentally observant of our thoughts, feelings, and actions, using the values of the living system we create positive feedback (functioning as a strange attractor) that helps its self-organizing process to achieve its universal potentials and harmonizes our brain within (right-nonlinear and left-linear) and with the whole-body network. The latest research in neuropsychology indicates that when we set our deepest aspirations to be in harmony with the true nature of the living universe, our brain will respond positively and start manifesting it in reality. This phenomenon is consistent with the vow concept in wisdom traditions.

## 8. HOW CAN THE INTERNET AS A SELF-SUSTAINABLE NETWORK PROVIDE GUIDELINES FOR THE PROCESS OF SUSTAINABILITY IN THE HUMAN NETWORK?

The living system of the universe structures itself as a hierarchy of cognitive networking processes: from subatomic particles to molecules, proteins, cells, human organs, the human body network, the human network, planets, solar systems, and galaxies. All of these networks provide a universally cognitive process capable of creating self-sustainable complexity through fundamentally simple processes, with unlimited creativity and efficiency.

Consider the human body as a metaphor for any complex living system: the body is a self-sustaining system that when acting subconsciously creates complex functions with almost no effort, when the brain implements non-linear relationships based on cooperation and partnership within the system. However, because of the illusive separation of the mind from the body network, when the conscious human brain takes control of the system and acts in linear manner it creates an unsustainable relationship based on self-assertiveness and domination toward the body network. Self-similarly the earth as a living system has the same capability (and any level of the network in the universe, from subatomic particles to galaxies). Only when humanity as a hub in the earth network attempts to take control and dominate the earth network by participating with linear thinking and relationships does the system become unsustainable.

One of the most significant creations of the human linear mind is computing technology and the vast non-linear network of the Internet. The Internet is a working model of a massive sustainable network and observation of its behaviors are revealing the essential and universal behavioral patterns of networks and living systems. Recent research about the Internet indicates that, through power law distribution, the creation of hubs has a significant impact on the robustness and self-sustainability of nonlinear networks through the very important roles they play.

The hubs in all sustainable living networks implement a nonlinear relationship within the system. However, when some hubs are implementing linear behaviors toward other members of the living networks the system becomes unsustainable. In the earth network, humans' use of linear perception is the main cause of the unsustainability we are now experiencing.

When we analyze the human body as a living system we notice that it follows an uneven power law distribution: our brain, as the hub of the body network which weights and occupies only five percent of our body network, consumes twenty percent of the body's intake. Through this elusive separation our brain implements the linear

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relationship of total control and domination over the body network. Similarly, in the self-sustaining Earth network, even though the human sub-network is a small percentage of the overall species, it consumes a larger percentage of resources and eliminates other forms of life. The human network, acting as a hub, implements an unsustainable, self-assertive and dominant linear relationship toward the Earth's network rather than exercising a nonlinear systemic relationship based on cooperation and partnership.

It is surprising that the living planet would invest most of its resources to create such an unsustainable and inefficient human network. Possibly there are deeper cognitive reasons behind the creation of such a network. Consider that human self-awareness is part of a higher cognitive process of the larger networks' self-awareness (our planet and our solar system). The cognitive earth's living network wants to manifest its hidden potentials and understand how and what it is and how it behaves; through the self-consciousness of human beings who are a part of that network, it has achieved self-awareness, and a vast, complex understanding of its system and the underlying mechanics that created and govern it. Furthermore, it has manifested its physical and metaphysical hidden potentials in the forms of art, science, technologies, emotions, and mystical experiences.

The cognitive earth living system is emerging into a new order. Evidence of this can be found anywhere increased chaos and unpredictability are observed, from record breaking temperatures and unprecedented storm cycles to social and political systems being restructured by unprecedented forces of change. Since we process our social and other activities through the Internet (a non-linear network) our activities are becoming highly connected, interdependent and inseparable, therefore becoming non-linearly emergent.

In this emergence period when we consider the human network as a major hub that has the most impact in the planet network, it signifies the importance of a systemic shift to the non-linear participation of human beings on the individual level and the whole human network. Even though linear thinking has been the dominant way of thinking for centuries, there is an inherent tendency both on the individual level and the human network level to self-organize and act holistically, which are non-linear behaviors. In our body network our brain is a self-organizing living system; when we start observing our thoughts and actions with systemic values it creates a feedback system and acts as a strange attractor to self-organize our brain holistically. Similarly, the human network is a self-organizing living system too.

Within the intellectual sub-network of the human network, there are systems and network thinkers who are hubs that their cooperative participation is essential to this

emerging process. These individuals can implement nonlinear relationships within their network to enact change in the earth network and enable it to evolve to the next level of understanding, self-sustainability and robustness. These people have the knowledge to simplify and clarify how we could perform as creative, efficient and sustainable members of the living universe as long as we shift our linear relationships and corresponding values to systemic relationships, using cooperative networking relationships and participation among the hubs in systems and network theorists who have the most knowledge, connections and potential influence.

Recently there has been an increase in spiritual movements that are intuitively recognizing the emergence of a new consciousness. For the most part these movements consist of individuals and organizational hubs that are in tune with the concept of our planet as a living system but may not be aware of the current achievements of systems and networking theories and their significance to this emergence. Both these new spiritual movements and systems thinkers are hubs with overlapping beliefs; if they were to connect to each other their combined networks could wield significant influence. Most network members that are not hubs (called weak connections) perform as cognitive bridges to connect one network to other networks, I consider myself one of the weak connections who wish to bridge the science and spirituality networks, but I need the help of hubs from both disciplines to make a significant impact in this critical emergence period.

## IN CONCLUSION

The Universe is a self-organizing, self-sustaining, and cognitive living system which structures itself as a hierarchy of cognitive networking processes. These network processes are fundamentally simple, with unlimited functionality and content of information, capable of communicating and guiding their sub-networks. This concept was part of ancient wisdoms which discovered the patterns of communication through their observations, but due to the domination of linear thinking and perception has been totally neglected in the modern world.

The cognitive earth's living network has achieved self-awareness, which is started with human being self-awareness. Using our self-awareness, we have developed linear perception and thinking (or logic) that created the elusive separation of human beings from the living universe. By implementing linear values -relationships- and reductionist science we have sought to discover the laws of the universe in order to dominate the nature. However, in this quest for knowledge our linear perception has resulted in unsustainable practices. Fortunately, in the digital age the same linear logic and reduction science has led us to discover the nonlinear theories (such as systems and

network theory) which have enabled us to discover the universal nonlinear laws, and relationships that govern the living universe and now allow us to rejoin the living earth in harmony and cooperation in sustainable way.

This process starts with establishing nonlinear relationships within the human body network and specifically in our brain as a hub and then expands to larger human networks such as intellectual, social and economic networks. Furthermore, since linear thinking and reduction science could not explain the nonlinear nature of metaphysical and mystic experiences and knowledge they would instead deny and ignore the most powerful metaphysical potentials of living Universe and spiritual experiences of the human network. Systems thinking by proving that universe is alive allows us to rejoin with the mystical traditions of the ancient world with the same beliefs and eventually led to the cooperation not the domination of the left and right brain, masculine and feminine, physical and metaphysical part of our brain and our harmonic existence within the system of the universe. The Simplicity, flexibility, and quality are the main characteristic of living systems which are observable in our bod network and is supported by nonlinear mathematics.

According to Tao Ching:

“I have just three things to teach:

Simplicity, Patience, Compassion.

These three are your greatest treasures.

Simple in action and thoughts,

You return to the sources of being.

Patient with both friends and enemies,

You accord with the way things are.

Compassionate toward yourself,

You reconcile all beings in the world”.