Inspiration Flow Theory of Knowledge (D)

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Abstract— **This paper is based on the notion that the elemental modules of knowledge (ΔK) are exchanged or transferred by virtual exchanges of verb functions (*VF*'s) between noun objects or knowledge centric objects (*KCO*s). In order to be practical and concurrently meaningful, we explore the concepts in this theory whereby the protocol for the knowledge path of smaller *kco*'s is in the physical domain and the larger knowledge centric object (*KCO*) is transported by imagery, similarities, parallelisms, and inspirations. One or subsequent socio-psychological pathways (memory flash-back, trigger-images, look, glance, gesture, etc.) confirm the knowledge exchange is imminent and then an "image" of a large body of knowledge (*KCO*) gets subconsciously formed by the receptor whereby bulk of the content is exchanged between the donor(s) and recipient(s) or vice versa. This image of the *KCO* is transferred, processed, reinforced and refined. For example, love at first sight is another name for this mystic process. As another example, two scientists can communicate an enormous amount of information significant and beneficial to each other, in a short time by pre-assigned symbols, notations, equations, and even looks, signs or a gesture. The resulting image is a constructive combination of the perceived image (as a seed or nucleus) and the supplementary image(s) from the receptor's own knowledge banks. We hasten to add that cruelty and violence can also be transferred thus. For example, a tiny insignificant nation can induce hate and aggression against other nations by distorting images fed to a much larger more powerful nation. Such examples are much too prevalent in history.**

Knowledge space becomes staggeringly more complex than the physical space. The order of complexity becomes at least fourfold because every noun-object (*n*), verb-function (*v*) and their combination (*) are unique, further-more all three depend on the *X, Y, Z, t,* coordinates in socially and culture. Hence, it becomes necessary to limit the size of *kunatum* to "sensible" size and to be practical. Initially, it can be limited to most useful noun objects and verb functions. Two examples follow. In its practical format, a *kunatum* of knowledge can be stated as (food (*n*), eat (*v*), restaurant (*x, y, z*), date and time (*t*)). At the other extreme, a cosmic *kunatum* can be stated as (space-ship A (*n*), explore (*v*), coordinates-Planet B (*x, y, z*), cosmic calendar date and time (*t*)). The need to be practical and limit the programming

complexity, it becomes a necessity to deal with *kunatized* knowledge within the realm of computation. Even so, the content of the knowledge so gathered (i.e., the food eaten in the restaurant or the data collected by the space ship) is not communicated. The flow of the entirety of knowledge needs a larger number of smaller *kunata* (*kco*'s) to be complete within the global-*kunata* of knowledge (or *KCO*)

I. INTRODUCTION

Four papers are proposed in this Journal. Part A deals with the simplest theory to quantify knowledge as we measure the current, fluid-flow, heat, magnetic fields, etc.; Part B deals with flow of knowledge as we would quantify current and voltage signals in transmission media and filters with their own characteristics in electrical communication theory; Part C deals with the flow of knowledge based on the *kunatum* theory where the individual quantum of knowledge can interact with the medium it is traversing, and finally Part D deals with the inspirational basis for the transfer of knowledge without any media but between transmitters and receptors with matching characteristics. Part D discusses that knowledge does not need a medium at all, and it can traverse infinitely large distances and cross most frontiers of time.

Life and physical objects are inseparably intertwined. Living and working with physical objects are necessarily entangled. Art of living and scientific skills are inevitably interwoven. The space and time-coordinates of this triadic essentials of existence (life itself, physical objects, and (*x, y, z, t*) coordinates) set the stage for the drama of all lives that unfold at any place and at any time.

From a slightly different perspective, minds and neural cells are biologically linked to living. Thought processes and actions are activated to enact. The physical sciences of noun objects (mass and dimensions), their actions (force and displacement) and the psychological motivation (incentive and impetus) to gratify human needs all coordinated. Life, society and reality are thus entwined.

From a more remote perspective, to establish the bondage and make reality of physical space, activity of mind, and continuum of physical and

time-coordinates the fabric of universal knowledge becomes essential. Universal knowledge makes the imagination free from social and psychological constraints permitting thoughts to traverse mental space, physical space and time. Human creativity and inspirations result from this constructive and cohesive cushion of knowledge.

In this current Internet age where information travels in the physical media at lightning speeds, the need for the mind to travel at super neural speeds is becoming more and more mandatory. Perhaps inspirations based on constructive and creative knowledge have the potential to travel faster than light and overtake thoughts before the senses can process them.

Life becomes easier with a set of well define knowledge tools. Knowledge exists in all textures, sizes and forms from the deepest seas and dizzy heights. Human senses can only offer a tiny glance of a much more intricate reality. The sophisticated universe of knowledge can still be sensed (or felt) with perception and imagery. Programming and mathematical tools resolve such perceptions and images to realistic algebraic processes to be conceived by the mind and implemented on computers. To deal with reality and use in the knowledge era, the structure of knowledge needs careful adjustment, alignment and association, especially if it is to be deployed in computational environment. The rigor of computer programming becomes essential.

The recent changes the in the Internet age, catalyzed by high-speed gating functions of electron clusters in the silicon chips and by equally high-speed paths of photons in the optical fibers causes unprecedented synergy between knowledge centric objects of all sizes and shapes. Smaller kco's (like humans, animals, marine life, etc.) dominate their own particular social spaces and much larger KCOs (like sun, moon, stars, etc.) dictate their own cosmic spaces. The human thought, now elated to new levels of intellectual activity and scientific exploration reigns supreme to unravel and decode the complexities of nature. Human mental processes still execute a variety of almost mystical arrays of neural programs to mould concepts, knowledge and wisdom with learning, behavior and adaptation.

Thought processes are generally associated with neural space and computational processes are associated with gating functions in silicon chips. These intermediate linkages bridge reality and physical spaces with the human psyche dealing with objects, their actions, interactions and their effects. Human beings have learned to cross these spaces readily by mind control. These mental processes are hard, if not impossible to program in the software of social machines. However, the connectivity of the mind with the machine can be established by controlling the noun-objects, their verb function, their convolutions and timings. These four entities make up the computational space as the mind would alter them in the psychological space to accomplish any social function or process. The social machine would alter the status of the noun-objects and their entropies accordingly. Thus, the machine could in a limited sense track, follow and duplicate the mental and psychological processes of a human mind.

II. REPRESENTATION OF THE GENERAL FORMAT OF SOCIAL INTERACTIONS

A. The Human Social Perspective

Social interactions are essential for the existence of any object in society. Social objects interact with others in an stylized format most of the time and the syntactic rules are well defined, even though they are highly variable from culture to culture, society to society and even household to household. Semantic rules are likewise variable these rules but extend and affirm the context of the local interactions. In an overall attempt to image social interactions to social machine emulation, any basic module of the interactive process can be written as:

$$NO_1 \leftarrow * \ VF* \rightarrow NO_2,$$

when an noun object NO_1 (i.e., Who?) interacts with a noun object NO_2 (Whom?) and NO_1 attempts a verb function VF (an action What?) upon NO_2 in the appropriate syntactic and semantic context $\leftarrow$ * with respect to itself and in the appropriate syntactic and semantic context *$\rightarrow$ with respect to the other object NO_2 (Whom?). NO_2 can be the same as NO_1 it as self-function like eat, drink, etc.

However, in reality there are hierarchies of Objects (ranging from global, cosmic objects to quantized, *kunatized* submicroscopic objects) and Verb function (ranging from global, cosmic functions to quantized, *kunatized* submicroscopic functions) and a series of stylized syntactic and semantic rules. Such representations for NO_1, NO_2 and VF are shown in Fig. 1. The rule are symbolized as $\leftarrow$ * and as *$\rightarrow$ for NO_1 upon itself and upon NO_2 respectively.

The linkages up and down the NO and VF hierarchies are depicted as the curvilinear lines between the various levels of hierarchies. This linkage occurs in the minds/backgrounds of the objects to make the social interaction coherent and purposeful.

B. The Social Machine and Knowledge Machine Perspectives

Social machines or knowledge machines depend heavily on social processor units (*SPU*s) or on knowledge processor units (*KPU*s). These new breed of machines are much like typical computers that depend on CPUs for processing. Typical machine instruction for traditional CPUs is written as

Typical Social Interaction Based Machine Code is written as
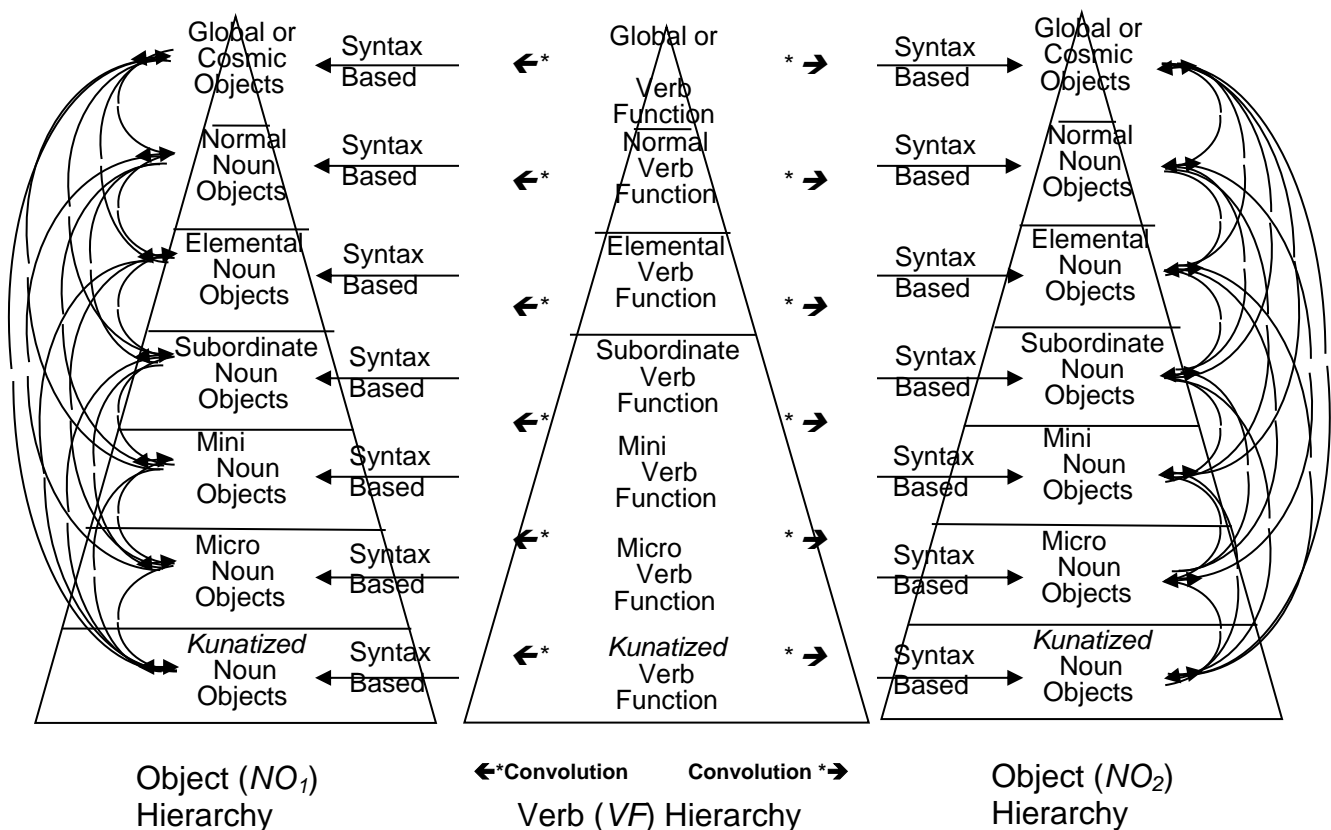
$$NO_1 \ \leftarrow * \ VF* \ \rightarrow \ NO_2$$

Fig. 1 Classification of the *NO* and *VF* Hierarchies for the interaction between two social objects *(NO$_1$)* and *(NO$_2$)*. The action id *VF* and the convolution is *, with ←* as the effect on *(NO$_1$)* and *→ on *(NO$_2$)*.

> Operation code (opc)   Operand (opr)   or Operand

Subject to syntactic and semantic laws for governing *opc(s)* and

In the social and knowledge machines, the *SPU*s and *KPU*s both track modules of social interaction and knowledge instructions for processing of objects in a similar fashion. Whereas social interactions are generic between human beings, the social modules can emulate elements of social interaction an almost human fashion. The generic representation shown in Fig. 1, is further enhanced to indicate the positioning of Noun Objects *(NO)*, Verb Functions *(VFs)*, Convolutions *(*)*, and then the processing of syntactic and semantic laws that are necessary to govern knowledge based *opc*s or *sopc*s and the corresponding operands or *sopr*(s) and shown in Fig. 2.

This type processing can occur at any of levels of the *NO* or *VF* hierarchies. For instance, if two super *NOs* (e.g., two galaxies) can give rise to a new offshoot solar system that has unique characteristics or a two microbe micro *NO* pair that can generate a new breed of bacteria, etc. It is also feasible to program the machine that functions of the noun objects from lower hierarchies can be incorporated in the processing routines, macros or microcode. An entirely new generation or species of *NOs* can thus be generated. Examples in nature are abundant as the species have evolved. Inspirational objects and functions are more appropriate in the psychological and mental space even though they may have a mapping in the real space.

C.   Difference between Social-Interaction Based Processing and Knowledge Based Processing

These machine processes of these two machines are very similar. The machine language instructions can be written down as

Typical Module of Human Interaction (VF_{1-2}) between two Objects (KNO_1 and KNO_2 or SNO_1 and Sis written as: KNO_1 or SNO_1 ← * VF_{1-2} * → KNO_2 or SNO_2

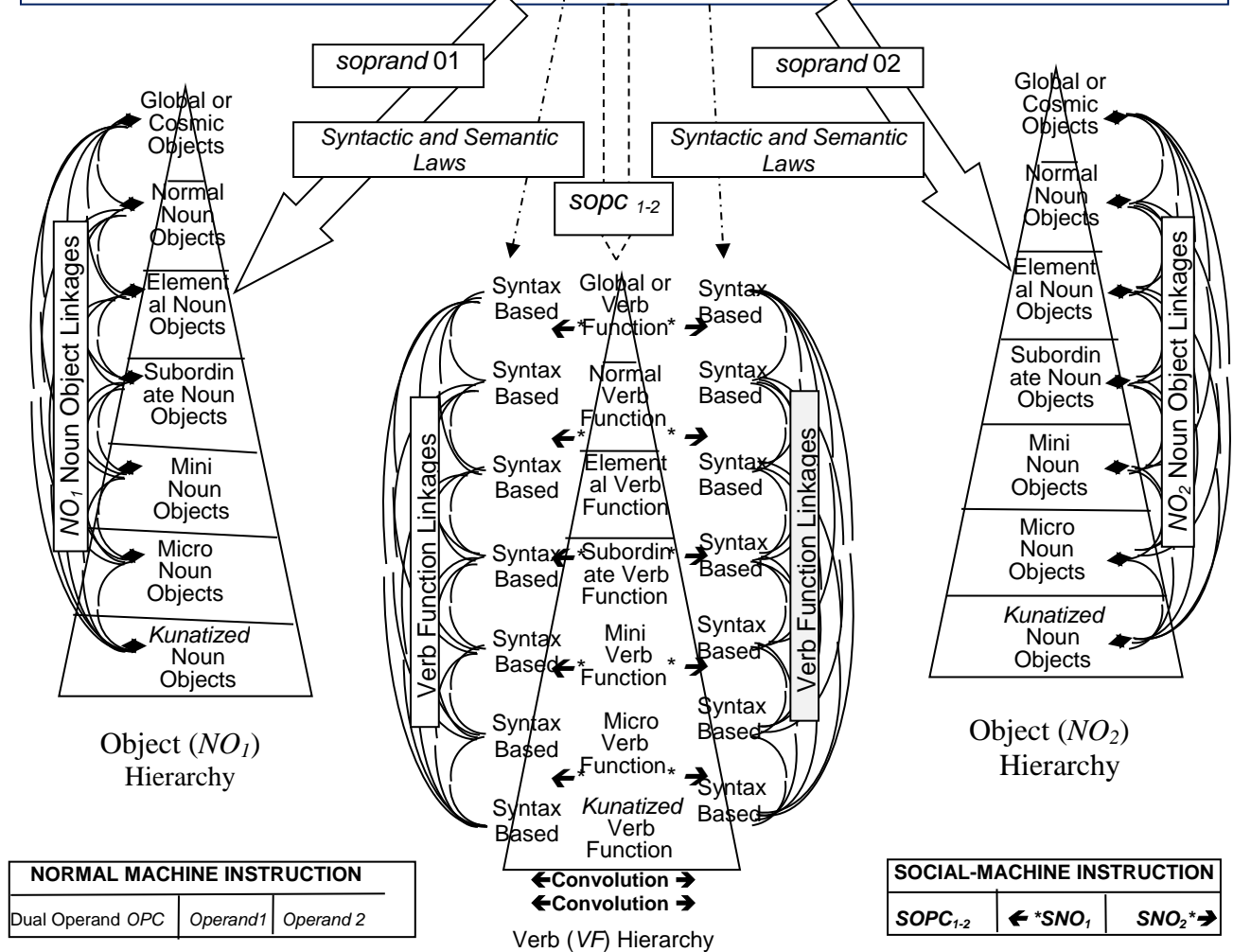*Fig. 2 Corresponding machine code for the social machine is written as {$SOPC_{1-2}$ ← *SNO_1 SNO_2* →}, where* **SOPC** *is social based knowledge operation code and* ← *SNO_1 and SNO_2* → *are the two operands . As in every compiler the syntactic and semantic tests are necessary for compiling social machines programs. For the higher-level language and application programs these checks are performed by compilers. For the machine language programs, these checks must be performed by the programmers. Most programmers for other types of machines follow the verification automatically during the design of the software.*

SNO_1 ← * SVF* → SNO_2

for the typical social interaction based machine and the code for the knowledge based machine is written as

KNO_1 ← * KVF* → KNO_2

The knowledge bases for *SNOs* are for typically for human beings and *KNOs* are for any general knowledge centric object. Correspondingly, the bases of *SVF*s and *KVF*s are also different.

The knowledge bases (*KB*s) of noun objects are created by knowledge management systems as easily as databases for data are created by database management systems. Entries in *KB*s of *NOs* serve as operands (*KOPERANDS* or *koperands*) for the *KPU*s. In the same vein, Verb

Function *KB*s created to hold the verb functions *VF*s serve as operation codes (*KOPCs* or *kopcs*) for the *KPU*s. The syntactic and semantic laws are supplied by the lookup tables stored alongside of the noun and verb *KB*s. These knowledge bases serve as supporting information for social, medical and educational systems.

Table I presents the systems breakdown of the various type of processor units of knowledge (*k*), social (S), medical (M), educational (E) machines that processes two *XNO's*, XNO_1 and XNO_2. The accumulators (or registers) of the traditional computers should be updated as objects registers with attribute caches for each object. The typical RR, RX, RS, SS, etc. [1], instruction sets also need to accommodate object processing and the accompanying attribute modifications.

In Table II the correspondence between the human thought processes and the social machine operation codes (*gopc's* through *qopc's*) for the various level (global through the *kunantized*) of the noun object and verb function hierarchies are tabulated. The relationship between the human actions involving active and passive, intelligent and non-intelligent objects with the operation codes of machines is firmly established by designing a methodology that is common for a general class of knowledge and social machines. Numerous series of such machines are the evolving knowledge (*K*), social (*S*), medical (*M*), educational (*E*), electronic government (*EG*) machines during the next few generation.

D. Knotrol Memories for Knowledge Based Machines

During the development of traditional main frame computers, IBM had deployed the use of main frame generic hardware environment for scientific or business machines by simply inserting the appropriate control memory chips for micro-programmable machines. This approach is also used in the automobile industry where the automobile engine blocks are made compatible with the body frame of numerous models of vehicles. In the same vein, it will be cost wise effective to build generic hardware environments for numerous series of social, medical, educational library and other knowledge based machines. The control (*kontrol*) memory ROMs [2] can be designed to be interchangeable. The design of the processor unit should execute various forms of firmware subroutines the interpret operation codes according to the application. It may be possible to build RISC knowledge machines for such knowledge based computer systems.

III. INSPIRATIONAL ASPECTS IN THE FLOW OF KNOWLEDGE

We propose an inspirational theory of knowledge or its derivative to explain and monitor the flow of knowledge in almost all media and in no media at all. In its early format, it is to be stated that when two or more knowledge centric objects (*KCO*s) are in proximity and a socio-psychological path is sensed (aroused, ignited, or communicated, etc.) between any two or more *KCO*s, then the necessary Global Verb Functions (*GVF*s) cluster by prior association (expectation, longing, desire, or inspirations, etc.). A new more beautiful, efficient, useful, wanted or beloved, *KCO* and/or *GVF* "gets formed" as a super *KCO* or *GVF* in the mental (real, perceived, derived, perceptual, and/or psychological, etc.), spaces of two or more *KCO*s. The super *KCO* may involve the original *KCO*s or by analogy two or more similar mental (real, perceived, derived, perceptual, and/or psychological, etc.) *KCO*s. The super *GVF* may involve the original *GVF*s or by analogy two or more similar actions (real, perceived, derived, perceptual, and/or psychological, etc.) *KCVF*s.

In reality, noun objects items on which life depends and verb functions become their movements and moves. In a very graphic sense, the process occurs when people (*KCO*s) juggle "things" or smaller objects (*kco*s), the "actions" (*GVF*s) and/or their "arrangements" to improvise their activities. The process of "gets formed" can be conscious, subconscious, voluntary, involuntary, inspired but it does require a duration of time lasting as a flash (like love at first sight) or drawn out and tedious (like the case of Maxwell's generalization of his four Equations of electromagnetism).

Such transfers of "knowledge" occurs between mother and child as the child perceives the parent-child bondage as a new *KCO*; in this case the "knowledge" is the "love" that is transferred and the *GVF*s can be the acts of nourishing, caressing, cuddling, etc. Less frequent are the deeds of genuine inspiration of a scientific principle from one scientist to another, when the receptor scientist interprets a generic concept of the donor scientist to a more general, more inclusive, more useful, more creative concept involving the original or similar *KCO*s and/or *GVF*s.
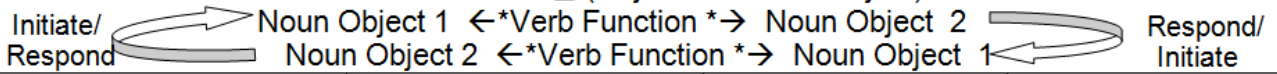
For example, the raw observations of Ampere, Gauss, Faraday etc., were available to Maxwell, he built the more inclusive, more Global, more elegant and more universal form in his Maxwell's equations. This chain continues through Einstein's Special Theory to his General Theory of Relativity. A flash of genius, a twinkle in the eye, a symbiotic gesture or just a glance might form a lifelong bondage of love or association between human beings.

When knowledge is recast as clustered triggering of neurons in the brain, then such incidents of triggered cell centers occur in the brain when a child learns to add (like 2 and 2 on its fingers) and then goes on learn addition (like 3 and 3 using the fingers) in the same fashion. The *KCO*s are neighboring neuron clusters, the *GVF* is adding, the minor *KCO*'s or *kco*'s are the fingers, and the inclusive *GVF* is addition any two or more numbers. Numerous other examples also exist.

In its early format, this theory states that knowledge may be "transferred" or it can flow from one object to another by inspiration. Specifically, it states that when two or more knowledge centric objects (*KCO*s) are in proximity and a socio-psychological path is sensed (aroused, provoked, communicated, or even imagined) between any two or more *KCO*s, then the necessary Global Verb Functions (*GVF*s) cluster by prior association (expectation, longing, desire, or inspiration, or even imagination) follow from insight or (computer-based, algorithmic) visualization(s).

Table I. General Form of Any Interactive Process Between Two Noun Objects XNO_1 and XNO_2 ($X = K, S, M,$ or $E,$ etc.)

Interaction = $\sum$ (Object - Action – Object)

Initiate/Respond → Noun Object 1 ←*Verb Function *→ Noun Object 2 — Respond/Initiate
Noun Object 2 ←*Verb Function *→ Noun Object 1

Noun Objects (WHO? WHOM?)	Verb Functions (WHAT ACTION?)	Convolution (HOW?)* with appropriate Semantic and Syntactic Laws	Knowledge Machine Function Formal Representation
Global; GNO's = $\sum NNO$'s+$\sum ENO$'s+$\sum sno$'s +$\sum mno$'s+$\sum\mu no$'s+$\sum qno$'s	Global; GVF's $\sum NVF$'s+$\sum EVF$'s+$\sum sVF$'s +$\sum mVF$'s+$\sum\mu VF$'s+$\sum qVF$s	←*GVF*→ = Convolution with Forward and Reverse Convolutions	GNO_1←*GVF_{12}* → GNO_2
Normal; NNO's = =$\sum ENO$'s+$\sum sno$'s+$\sum mno$'s +$\sum\mu no$'s+$\sum qno$'s	Normal; NVF's = $\sum EVF$'s+$\sum sVF$'s+$\sum mVF$'s +$\sum\mu VF$'s+$\sum qVF$'s	←*NVF*→ = Forward and Reverse Convolutions	NNO_1←* NVF_{12}* → NNO_2
Elemental; ENO's= $\sum sno$'s+$\sum mno$'s +$\sum\mu no$'s+$\sum qno$'s	Elemental; EVF's =$\sum sVF$'s+$\sum mVF$'s +$\sum\mu VF$'s+$\sum qVF$'s	←*EVF*→ = Forward and Reverse Convolutions	ENO_1←* EVF_{12}* → ENO_2
Subordinate; sno's= $\sum mno$'s+$\sum\mu no$'s+$\sum qno$'s	Subordinate; sVF's =$\sum mVF$'s+$\sum\mu VF$'s+$\sum qVF$'s	←*sVF*→ = Forward and Reverse Convolutions	sno_1←* sVF_{12}* → sno_2
Mini; mno's= $\sum\mu no$'s+$\sum qno$'s	Mini; mVF's = $\sum\mu VF$'s+$\sum qVF$'s	←*mVF*→ = Forward and Reverse Convolutions	mno_1←* mVF_{12}* → mno_2
Micro; μno's= $\sum qno$'s	Micro; μVF's μVF's = $\sum qVF$'s	←*μVF*→ = Forward and Reverse Convolutions	μno_1←* μVF_{12}* → μno_2
Kunatized; qno's	Kunatized; qVF's	←*qVF*→ Forward and Reverse Convolutions	qno_1←* qVF_{12}* → qno_2

Note: *NO* (or *no*) refers to noun objects (WHO? and WHOM?) and *VF* (or *vf*) refers to verb functions (WHAT?) action occurs between the objects. The convolution operator (*) facilitates the representation of how (HOW?) the action was performed. For example, the "take" action can be rob, steal, receive, collect, accept, grab, snatch, etc. Each variation could have a different impact on the two noun objects.

Table II General Form of Any Interactive Process Between Two Noun Objects NO_1 and NO_2

Interaction = Σ (Object - Action - Object)

Noun Object 1 $\leftarrow$*Verb Function *$\rightarrow$ Noun Object 2
Noun Object 2 $\leftarrow$*Verb Function *$\rightarrow$ Noun Object 1

React / Act   **Act / React**

| Noun Objects (Who)	Verb Functions (What Action)	Convolution (How) *	Knowledge Machine Function Formal Representation
Global; $GNO's$ = $\Sigma NNO's + \Sigma ENO's + \Sigma sno's + \Sigma mno's + \Sigma \mu no's + \Sigma qno's$	Global; $GVF's$ = $\Sigma NVF's + \Sigma EVF's + \Sigma svf's + \Sigma mvf's + \Sigma \mu vf's + \Sigma qvf's$	$\leftarrow$*GVF*$\rightarrow$ = Convolution with Appropriate (Lookup) Semantic and Syntactic Laws	$GNO_1 \leftarrow$* GVF_{12}* $\rightarrow GNO_2$
Normal; $NNO's$ = $= \Sigma ENO's + \Sigma sno's + \Sigma mno's + \Sigma \mu no's + \Sigma qno's$	Normal; $NVF's$ = $= \Sigma EVF's + \Sigma svf's + \Sigma mvf's + \Sigma \mu vf's + \Sigma qvf's$	$\leftarrow$*NVF*$\rightarrow$ = Convolution with Appropriate (Lookup) Semantic and Syntactic Laws	$NNO_1 \leftarrow$* NVF_{12}* $\rightarrow NNO_2$
Elemental; $ENO's$ = $\Sigma sno's + \Sigma mno's + \Sigma \mu no's + \Sigma qno's$	Elemental; $EVF's$ = $\Sigma svf's + \Sigma mvf's + \Sigma \mu vf's + \Sigma qvf's$	$\leftarrow$*EVF*$\rightarrow$ = Convolution with Appropriate (Lookup) Semantic and Syntactic Laws	$ENO_1 \leftarrow$* EVF_{12}* $\rightarrow ENO_2$
Subordinate; $sno's$ = $\Sigma mno's + \Sigma \mu no's + \Sigma qno's$	Subordinate; $svf's$ = $\Sigma mvf's + \Sigma \mu vf's + \Sigma qvf's$	$\leftarrow$*svf*$\rightarrow$ = Convolution with Appropriate (Lookup) Semantic and Syntactic Laws	$sno_1 \leftarrow$* svf_{12}* $\rightarrow sno_2$
Mini; $mno's$ = $\Sigma \mu no's + \Sigma qno's$	Mini; $mvf's$ = $\Sigma \mu vf's + \Sigma qvf's$	$\leftarrow$*mvf*$\rightarrow$ = Convolution with Appropriate (Lookup) Semantic and Syntactic Laws	$mno_1 \leftarrow$* mvf_{12}* $\rightarrow mno_2$
Micro; $\mu no's$ $\mu no's = \Sigma qno's$	Micro; $\mu vf's$ $\mu vf's = \Sigma qvf's$	$\leftarrow$*μvf*$\rightarrow$ = Convolution with Appropriate (Lookup) Semantic and Syntactic Laws	$\mu no_1 \leftarrow$* μvf_{12}* $\rightarrow \mu no_2$
Kunatized; $qno's$	Kunatized; $qvf's$	$\leftarrow$*qvf*$\rightarrow$ = Convolution with Appropriate (Lookup) Semantic and Syntactic Laws	$qno_1 \leftarrow$* qvf_{12}* $\rightarrow qno_2$
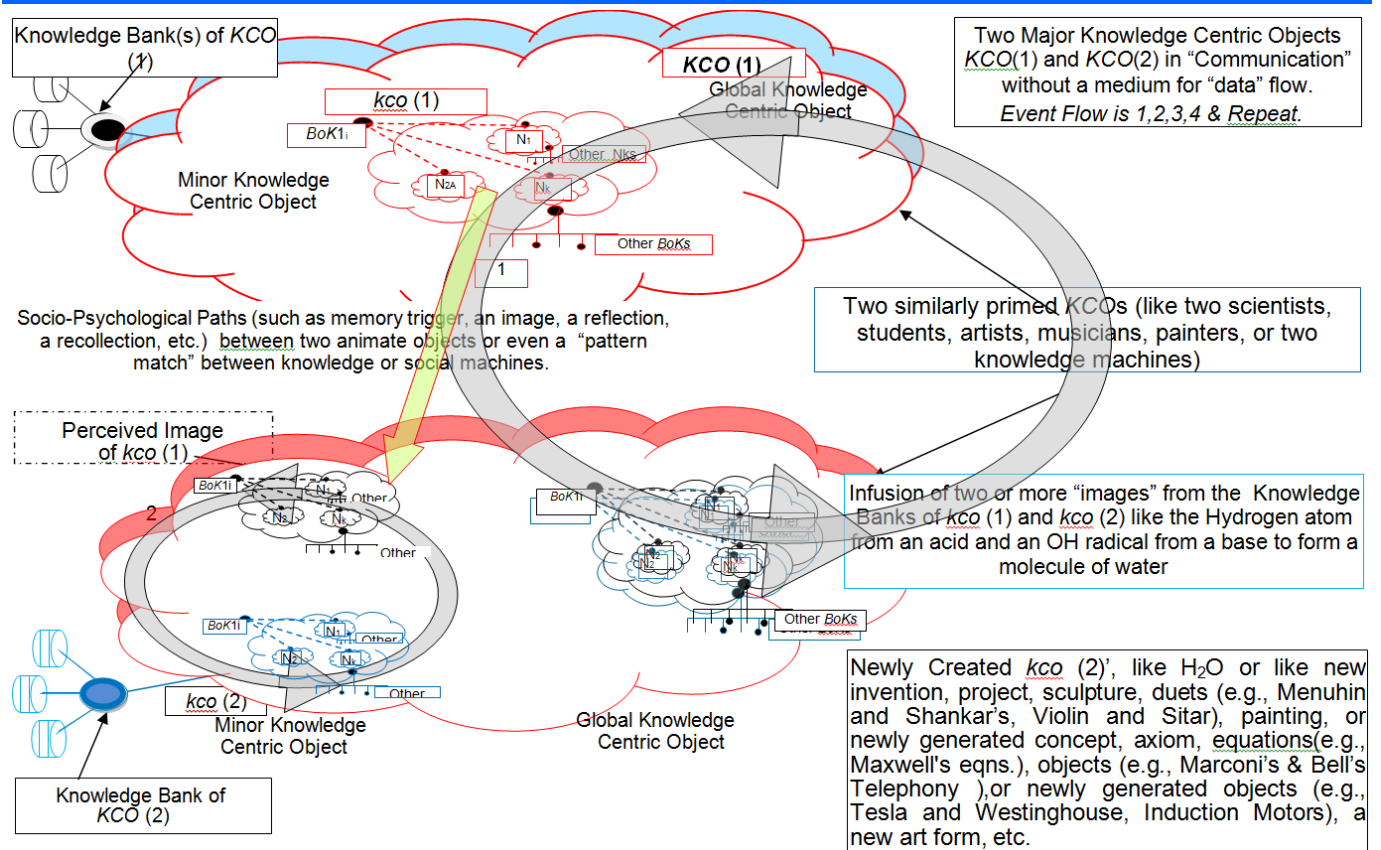
Fig. 3. Depiction of an inspirational transfer of knowledge. Incomplete "images" or "tokens" based on two objects communicate via a socio psychological path or any two machines transferring such "images" via protocol during signaling, and data paths and generate new "image" of an object derived from one or more "images" from the knowledge bases of the two primary knowledge centric objects, i.e., KCO (1) and KCO (2).

A larger, (more beautiful, efficient, useful, wanted or beloved, etc.), *KCO* and/or *GVF* "gets formed" as a super *KCO* or *GVF* in the mental (real, perceived, derived, perceptual, and/or psychological, etc.), spaces of two or more *KCO*s. The super *KCO* may involve the original *KCO*s or by analogy two or more similar mental (real, perceived, derived, perceptual, and/or psychological, etc.) *KCO*s. The super *GVF* may involve the original *GVF*s or by analogy two or more similar actions (real, perceived, derived, perceptual, and/or psychological, etc.) *KCVF*s.

When knowledge is recast as clustered triggering of neurons in the brain, then such incidents of triggered cell centers occur in the brain when a child learns to add (like 2 and 2 on its fingers) and then goes on learn addition (like 3 and 3 using the fingers) in the same fashion. The *KCO*s are neighboring neuron clusters, the *GVF* is adding, the minor *KCO*'s or *kco*'s are the fingers, and the inclusive *GVF* is addition any two or more numbers. Numerous other examples also exist.

In its early format, this theory states that knowledge may be "transferred" or it can flow from one object to another by inspiration. Specifically, it states that when two or more knowledge centric objects (*KCO*s) are in proximity and a socio-psychological path is sensed (aroused, provoked,

communicated, or even imagined) between any two or more *KCO*s, then the necessary Global Verb Functions (*GVF*s) cluster by prior association (expectation, longing, desire, or inspiration, or even imagination) follow from insight or (computer-based, algorithmic) visualization(s). A larger, (more beautiful, efficient, useful, wanted or beloved, etc.), *KCO* and/or *GVF* "gets formed" as a super *KCO* or *GVF* in the mental (real, perceived, derived, perceptual, and/or psychological, etc.), spaces of two or more *KCO*s. The super *KCO* may involve the original *KCO*s or by analogy two or more similar mental (real, perceived, derived, perceptual, and/or psychological, etc.) *KCO*s. The super *GVF* may involve the original *GVF*s or by analogy two or more similar actions (real, perceived, derived, perceptual, and/or psychological, etc.) *KCVF*s.

IV. POSITIVE INSPIRATIONS (PORTRAIT OF PROGRESS)

In reality, these super noun objects and super verb functions can be animate or inanimate, virtual or abstract, impressionistic or realistic. One of the chief requirements is that the receptor object be intelligent to enhance or modify the "impression/inspiration" communicated by the donor object. History has documented the role of prophets (Buddha, Moses and Christ) and saints (Schweitzer, Gandhi, King) in inspiring their

disciples and followers with super objects (like personalities of saints, portraits of virtue, images of shrines, etc.) and super functions (like love, respect, etc.). Enormous good and virtue has followed.

In its simplest form, transfusion of imageries is any normal human dialogue where the opinion or knowledge of one human being is being modified by communicating with the other. For instance, when human beings exchange gestures of love, the imagery of what they expect from one another get formed and either enhanced or rejected leading to many possibilities that can arise from one or more series of interactions. In a rare but real form, it can be the rich legacy of musical compositions that resulted between two great musicians [3] Yehudi Menuhin and Ravi Shankar. Further, the association with Zubin Mehta also affirms a triadic form of inspirational music which appears more melodious and richer than the music of any one of the two/three great musicians.

In a different format, the association between Thomas Alva Edison, (1847-1931, the inventor of telegraph), Alexander Graham Bell (1847-1922, the inventor of telephone) and Frederic Allan Gower (a businessman), resulted in the formation of the Edison Gower-Bell Telephone Company of Europe, Ltd. in the early 1880s, to serve most of Europe [4]. The invention of Thomas Edison's Carbon microphone (1877-78) did find a distinctive role in Alexander Graham Bell's telephones [5]. This gadget became a promising component in the older telephone systems.

Inspirational pathways of knowledge both positive and negative do not need real-time pathways or continuity in the time domain. In fact, this "inspirational knowledge" can appear as true, genuine and beneficent inspirations or as false, deceptive and harmful deceit. In a negative sense, an "inspiration" occurs when two Mafia member meet to collude. Over space it can transfer between Europe and United States, spread over time, it can transfer between generations.

Knowledge centric objects or KCOs are items on which life depends and verb functions become their movements and moves. In a very graphic sense, the process occurs when people (KCOs) juggle "things" or smaller objects (kcos), the "actions" (GVFs) and/or their "arrangements" to improvise their activities. The process of "gets formed" can be conscious, subconscious, voluntary, involuntary, inspired but it does require a duration of time lasting as a flash (like love at first sight) or drawn out and tedious (like the case of Maxwell's generalization of his four Equations of electromagnetism).

Such transfers of "knowledge" occurs between mother and child as the child perceives the parent-child bondage as a new KCO; in this case the "knowledge" is the "love, concern, responsibility",

that is transferred and the GVFs can be the acts of nourishing, caressing, cuddling, etc. Less frequent are the deeds of genuine inspiration of a scientific principle from one scientist to another, when the receptor scientist interprets a generic concept of the donor scientist to a more general, more inclusive, more useful, more creative concept involving the original or similar KCOs and/or GVFs. For example, the raw observations of Ampere, Gauss, Galvani, Faraday etc., were available to Maxwell and he went on to builtd the more inclusive, more generic, more elegant and more universal form in his Maxwell's equations. This chain continues through Einstein's Special Theory to his General Theory of Relativity. A flash of genius, a twinkle in the eye, a symbiotic gesture or just a glance might form a lifelong bondage of love or association between human beings.

When knowledge is recast as clustered triggering of neurons in the brain, then such incidents of triggered cell centers occur in the brain when a child learns to add (like 2 and 2 on its fingers) and then goes on learn addition (like 3 and 3 using the fingers) in the same fashion. The KCOs are neighboring neuron clusters, the GVF[1] is adding, the minor KCOs or kco's are the fingers, and the inclusive GVF is addition any two or more numbers. Numerous other examples also exist.

Fig. 3 depicts a situation when a donor KCO (1) communicates an impression of a fragmented kco (1) to the receptor KCO (2). The KCOs can be two or more knowledge machines that convey the "image-knowledge structures" of the "kcos" via data links or high-speed Internet ATM pathways. If the two machines are both intelligent, then they can generate numerous "children kcos'' (twin objects, triadic objects, etc.) that are more valuable to the society where the two original KCOs exist. The situation is akin to two parents in unison can produce a baby from the genes drawn from both or of an engaged couple who plan a life of bliss or conversely for one exploitive partner to sweet talk and deceive the other into marriage.

Such examples have prevailed in nature and civilizations for eons but become applicable in the information domain between humans and/or machines. The protocol and interfaces to receive and process the significant content of the kco's, their structure, and GVFs need to be explored and standardized such that any couple KCOs can gainfully interact. For example, if a hacker tries to fool a machine to provide access to secure data, a certain amount of educated deception is being practiced and it can be reversed by a super-machine and such machine can "intellectually trap"

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[1] KCOs and kco's denote major and minor *knowledge centric objects*, GVF and gVF's denote the major and minor *verb functions* respectively. The structure of the objects and their functionalities are carried by the (noun object-verb function) pair(ings).

the hacker and communicate the hacker information to the security centers around the WWW profile hubs. Such advanced security measures are enforced by intelligence agencies of many nations.

A sense of good and evil is evident. However, the roles are reversed for the corrupt and the dishonest. The role of human intellect becomes supreme to become decisive based on the local and environmental conditions. The art of programming very insidious role of being superhuman will be perhaps, the final test for Artificially (Superhuman) Intelligent programming experts.

V. NEGATIVE DESPERATION (PORTRAITS OF DECEPTION)

As much as truth, virtue and grace are implanted in an honest society by the noble and elite, the seeds of descent, hate and aggression can be planted in a corrupt society by Mafia and thugs. Society thus swings as a massive pendulum under these opposing forces. The endless cyclic rhythms of lives, societies, nations follows the waves of deceit, aggression and ignorance moving counter to truth, virtue and wisdom and vice versa in both microscopic and macroscopic scales. Harmony and accord suffer brutally at the whim and fancy of ignorant missiles-and-machine-gun wielding army generals. The enactment of this behavior has been documented in the history of British colonial rule around the world. The destructive nature of violence is inherently faster than the resurrection of harmony and accord within the society. Ignorance and brutality are as much akin as knowledge and consent from a global perspective.

Harassments and negative acts of desperation can be equally ingenious but ill-founded and deceitful. They can be atrocious and disastrous bringing death and dismay to large segments of populous. History has documented numerous incidents of such collusion of evil intent with grave trails behind them. For example, the French and British instigated the Inquisition[2] and torture starting

in 12th century France and spread to Spain and Northern Italy. The Portuguese and British[3] slave traders brought and brutally exploited the native African tribesmen and women for over 300 years starting mid to late 1400's.

As another example, when Bush started an offensive in Iraq with the assumption of misdirected evidence that Saddam Hussein was hoarding weapons of mass destruction, Blair joined in as a poodle following a dog. Both the two countries brought in massive suffering on people who had nothing to do weapons of mass destruction! As recently as the middle of 2014, offensives are regularly launched despite world opinion and UN disapproval[4].

Numerous examples of such cruelty smear the history of human race with trails of cruelty of willful and questionable conduct of political leaders. Truth, honesty and wisdom are blindfolded when deceit reigns supreme. Collusion of evil wills is an antithesis of an inspiration seeking rewards the humankind by goodwill and noble intent. Natural intelligence needs to play its vital role above and beyond machines primed with artificial intelligence which can turn sour.

A. PROTOCOL TRANSFER AND CONTENT REINFORCEMENT

In collaborative reinforcement of inspiration, the physical media (like sight, gesture, nod, look, etc.) establishes the protocol (like how) the transference can be done via inferences, impressions, reading, and memory linkages, etc. But thereafter the transport stops and interpretation starts to activate the intelligence (natural, artificial and PR methodologies to scan for the deeper content and purpose of the initial protocol) of the receptor. Reinforcement of content and purpose of the possible "impressions" may be invoked via other physical or perceptual links. Scriptures are believed to have this type of spiritual continuity and numerous master-disciple (e.g., Siddhartha and his monks, Jesus and John, the Baptist, Gandhi and Nehru, etc.) relationships claim such "inspirational" communication.

B. PROCESSING OF IMPRESSIONS AND INSPIRATIONS

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[2] "At root the word Inquisition signifies as little of evil as the primitive "inquire," or the adjective inquisitive but as words, like persons, lose their characters by bad associations, so "Inquisition" has become infamous and hideous as the name of an executive department of the Roman Catholic Church." Further the description reads "The Inquisitions function was principally assembled to repress all heretics of rights, depriving them of their estate and assets which became subject to the ownership of the Catholic treasury, with each relentlessly sought to destroy anyone who spoke, or even thought differently to the Catholic Church. This system for close to over six centuries became the legal framework throughout most of Europe that orchestrated one of the most confound religious orders in the course of mankind." [http://www.bibliotecapleyades.net/vatican/esp_vatican29.htm]

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[3] For well over 300 years, European countries forced Africans onto slave ships and transported them across the Atlantic Ocean. The first European nation to engage in the Transatlantic Slave Trade was Portugal in the mid to late 1400's. Captain John Hawkins made the first known English slaving voyage to Africa, in 1562, in the reign of Elizabeth 1. Hawkins made three such journeys over a period of six years. He captured over 1200 Africans and sold them as goods in the Spanish colonies in the Americas. [http://abolition.e2bn.org/slavery_45.html]

[4] Please see http://news.msn.com/world/israel-widens-air-attack-gaza-death-toll-tops-125-1. Please read the complete news article.

The cognition of impressions and their successive processing are two critical steps in inspirations exchanged or communicated. The "image", ΔK_1 brings signals of the knowledge centric objects KCOs, their GVFs, and the structure and constitution that relate such modules of information. The inspiration processing is shown in Fig. 4. As a first step, the impressions thus received as A conveys the background of the increment of knowledge or (ΔK_1) from KCO (1) to KCO (2) in box and perceived as B. The initial processing removes any noise or background signals from the perceived image.

The image, token or impression initially received by KCO (2) is blended by image processing algorithms in AI and a new image is thus deduced by blending (Box 3). The refined admixing of the numerous smaller kco's (shown as N_{12}, N_{12}, N_{13}. and N_{21}, N_{22}, N_{23}. etc, Box 4), the numerous GVF's (shown as V_{12}, V_{12}, V_{13}. and V_{21}, V_{22}, V_{23}. etc Box 5), and their respective structures (Box 6) in the knowledge processing box in Fig. 4. Only newly derived or deduced kco's (F) that show promise of being valid and practical are moved to the next KB of "Inspired" ΔK's (G) for further evaluation and analysis.

The validity processing (Box 8) is verified by analysis or by heuristic comparisons. The analysis is done examining the subject-matter (e.g., chemistry, physics, engineering, etc.) analysis of N's, V's, and their structural relations in the inspirationally derived kco's. The heuristic analysis is done by searching if the N's, V's, and their structural relations in the inspirationally derived

kco's match those in the existing KBs on the Internet websites or local KBs. Optimization and final refinement of the "inspired" image in the KB is repeated numerous times until a satisfactory "image" or object is derived or deduced by the series of steps shown in the Fig. .

VI. CONCLUSIONs

Inspirational mode of knowledge-transfer needs the transmutation of concepts dealing with physical objects and their attributes to analogous concepts dealing with mental images and metaphysical objects and their associations. Images once formed in the minds of humans or the core of the computer memories are objects in their own right. Such objects can both be enhanced and processed by computer-based image processing algorithms. This processing uncovers any underlying patterns of human thought in a social setting to yield greater economic or social value in the present context. The robustness of the original concepts holds the key to the travel in time and without any media for transport. Within the mind or the machine the concepts are treated as images subject to image-processing algorithms and objects subject to object processing macros and routines.

It is our contention that every object has some function associated with it. An object is non-object if it does not do anything and conversely an action is a non-action if no object can do it. Both (noun) objects and (verb) functions fall out of the knowledge domain if they cannot be connected to some existing (verb) function (VF) or (noun) object (NO) respectively.

NOTE: Sequence **A to H** indicates the modification of the "images", and the sequence **1 to 8** indicates the processes involved in the enhancement.
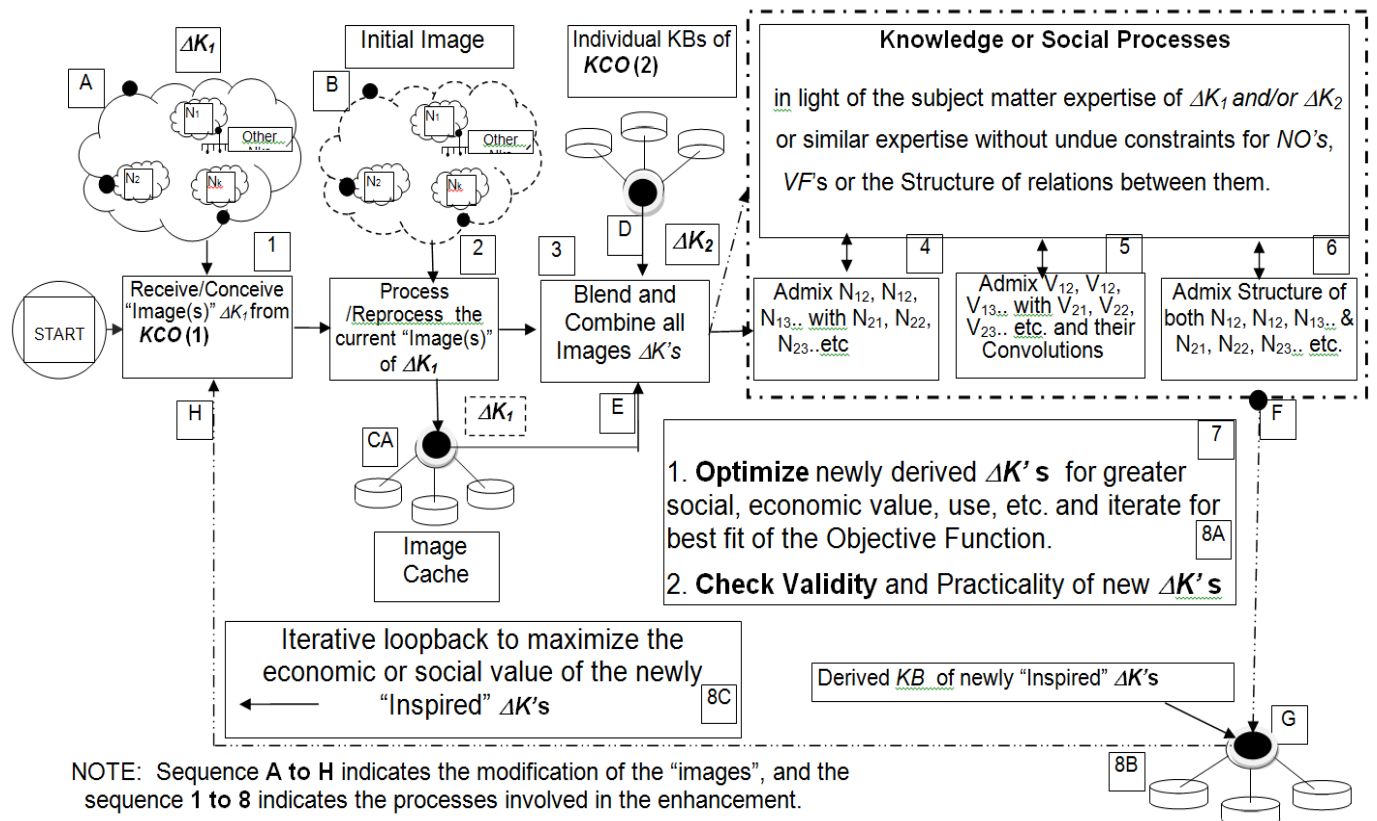
Fig. 4 A computer schematic for deriving and deducing inspirations between human beings via virtual socio-psychological pathways or between knowledge machines via Internet data links based on systematic and computational algorithms. The superiority of human function lies in the knowledge processing box with dashed lines), where the neural paths in the brain can yield optimal results without any known algorithmic process.

In appropriate conjunction (convolution or *) the pair (*no*VF* or *VF*no*) contributes to an element of knowledge ($\Delta k \propto f_1$ *(no*VF)* or $\Delta k' \propto f_1'$ *(VF$_1$' *no)*) that serves some purpose or gratifies some element of need ($\Delta n \propto f_2$ *(Δk)* or $\Delta n' \propto f_2'$ *(Δk)*) of an individual, species, society, culture, or some social object.

The knowledge space is now greatly augmented by Internet connectivity and it fills all suspicious gaps by either tangible path(s) or by mathematical formulation (s). This paper offers means of establishing continuity between most physical object(s) and their functionality(ies) by establishing an hierarchy of knowledge centric object than be reduced to the *kunata* thus entrapping the microscopic objects and their microscopic functionality(ies). The approach is also feasible at a macroscopic level where macro-objects perform macro functions. The possibility of micro objects doing macro functions leads to statistical probability distribution of their occurrence. The sciences have not sufficiently evolved to solve all aspects of macro knowledge centric objects (like the universe, the human body, etc) problems at the same time and solve the microscopic objects (like the photons, the genetic cells, etc) problems at one and the same time, except by statistical methods in quantum physics. Further, sciences can provide some insight into the equations for main macro functions (like the Big Bang, the genetic evolution, etc.) but they cannot resolve the infinitesimal micro functions (like electron-photon interactions, the cellular biological processes, etc.) both at one and the same time. Human comprehension starts to fizzle out at both extremes of noun objects (i.e., for super-cosmic objects and for micro-monocular particles). Human comprehension also fizzles out at

both extremes of verb functions (i.e., for chaotic collision of super nova and for collision of electrons in super colliders). In a sense, knowledge though complete in its own right is incomprehensible at such extreme boundaries the knowledge processing calls adequate care and due diligence in implementing them on computers.

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