THOUGHTS AND IDEA-LEADERSHIP IN AI

SCIENCE, TECHNOLOGY AND BUSINESS

Prof. (Dr.) Ashok Kumar Mukhopadhyay, MD

A Student of Consciousness
Member, Advisory Board of Galileo Commission, Scientific and Medical Network, UK

Alumnus, AIIMS, New Delhi (1979-2023)
Formerly Prof. & Head, Dept. of Laboratory Medicine, All India Institute of Medical Sciences, New Delhi (2006-2018)
Formerly Professor of Pathology & Academic Head (2018-2023), North DMC Medical College and HRH, Delhi

Website: http://www.akmukhopadhyayconsciousness.com

AUTHOR'S CREDENTIALS: CONSIDERS HIMSELF A STUDENT OF CONSCIOUSNESS AND AS SO, CREATED A WORLDVIEW……

- The Brain is not the Source, or the User of Consciousness. It is Consciousness which uses Brains for its own Manifestations. The Brain (i) has evolved as the "Home" and Workplace for the Cognitive Operators, (ii) acts as a Holographic Sensor of different Information States, and (iii) is a Biological device for the expression of Behavior

- The Universe didn't come into existence through any Big Bang. Information Split in quietude created Space, Time, and Energy (Dark Energy) to shape the Universe by an operation still unknown to us. The conversion of Dark energy into visible energy is a feat of "Life"

- Nature does not end at Classical and Quantum Nests. There are Pre-quantum, and Pre-prequantum nests of Nature prior to have the final access to the nest of Consciousness. Each nest has its own Exit and Entrance, the Currency for specific Operational Mechanics creating a Dynamic Pentaune Model of Nature-Consciousness

- It is possible to Objectify Systems Psyche with the respective and interactive Cognitive operations of Non-observable Influential, such as Mind, Self, Life and Consciousness working for the quality systems management of Information. This model of Systems Psyche is in conformity with the Pentaune Model of Nature Consciousness for understanding and exploring Depth Psychology and Deep Ecology

- Material Science Ends and Begins at Zero-point Energy (ZPE). Across this ZPE exists a pathway from the "Will" to Signal. Systems Physics, Systems Psychology, Systems Biology and Systems Cosmology meet and interact at ZPE.

The Author began his Academic Journey on Consciousness and Related Science in 1985, Coining the Term and the Concept of Supracortical Consciousness, The point of Transition to the Post-Materialistic Science, Spirit & Humanity

AUTHOR'S PUBLICATIONS ON AI PRIOR TO THIS PRESENTATION

1. **Romance to Exemplary Wedding. Conscious Humanity loves Humanized AI (2023)**
https://juniperpublishers.com/pbsij/pdf/PBSIJ.MS.ID.556059.pdf

2. **The Mystery of Memory. No Life, No Memory (2023).**
https://www.remedypublications.com/world-journal-of-psychiatry-and-mental-health-research-articles.php?vol=6&&iss=1

3. **Future of AI. The Cell shows the way (2023)**
https://austinpublishinggroup.com/clinical-pathology/fulltext/ajcp-v10-id1079.pdf

4. **Intelligence in perspectives of the Systems Psyche: Natural, Human and Artificial (2018)**
https://juniperpublishers.com/pbsij/pdf/PBSIJ.MS.ID.555754.pdf

5. **Artificial Intelligence, Human Intelligence and Intelligence of Nature: Difficult Questions in their Ambitious Fusion (2017)**
https://scientiaricerca.com/srcons/pdf/SRCONS-01-00035.pdf

ASHESH RATHOR

HISTORY OF PRESENT DAY AI

Leonardo da Vinci seeing through the flesh of human body did the painting of human skeleton. da Vinci, who made Mona Lisa's emotion blossom, was also the first to imagine and sketch the picture of an emotionless robot

In 1955 **John McCarthy**, a Prof. of mathematics at Dartmouth, coined the Term Artificial Intelligence (AI)

In 1956, he organized a Seminal Conference on the Subject. The year 1956 happened to be the Birth year of AIIMS, Delhi

Yann-LcCum (Meta's Chief AI Scientist), is recognized as the Godfather of AI. **Geoffrey Hinton**, who helped create Neural Network, is also known to many as Godfather of AI

The presenting Author, an Alumnus of AIIMS, Delhi, unequivocally and categorically stated in 2023 that there is no Intelligence in any of the Devices of AI at its present State

SURPRISES FROM HISTORY:
PRESENCE OF AI IN ANCIENT INDIAN TEXTS:
AI ROBOTS EVENTUALLY DISABLED BY 'THE DIVINE' INTELLIGENCE IN HUMAN FORM

I. BARBARIC: The Warrior Robot with AI

Eventually **disabled by Lord Krishna**

(Ref: Mahabharata)

II. KUMBHAKARNA: The Robo- War Machine

Eventually **disabled by Lord Rama**

(Ref: Ramayana)

III. SAMBARASURA: Used Three AI Devices to defeat Adityas

Eventually **disabled by Adityas**

(Ref: Yoga Vasistha)

Reference: https://www.linkedin.com/pulse/origins-ai-through-ancient-indian-texts-hans-malik

MILESTONES OF PROGRESS IN THE PRESENT AI TECHNOLOGY

I. AI as a Robot (Robotic Process Automation)

....

II. Artificial General Intelligence, AGI: Robots open to its Cloud Resources of data & data training by means of appropriate sensors, performing pattern-recognition and probabilistic-matching of images, designs and patterns (and might be translating into multiple languages). Machine's performance improves over time. (Author adds: Machine Learning, a marketing term, is here proposed to be replaced by Data Training. The term cognitive in this context is better replaced with ability to recognize images, patterns, designs etc. and unconsciously involved in their probabilistic matching. Two characteristics of AI generated text are (i) sentence length (ii) low level of randomness in choice of words).

IIA. Q* (pronounced as q-star) AI, that can solve already solved mathematics

....

III. AI for Planning

   with a given Goal

   with an undetermined Goal (e.g., solving an unsolved mathematics)

....

IV. AI with 'Flesh'

   AI with Feelings (Humanizing the Humanoid)

....

V. Conscious AI

AGI is a "system that outperforms humans at most economically valuable work,"

WHY DOES AI IN ITS PRESENT STATE HAVE NO INTELLIGENCE?

- Intelligence can sense loss of 'symmetry' and/or `uncertainty', and/or dark energy in the environment and genuinely tries to overcome those. At critical point of instability, Intelligence of the systems offers a decision over a number of options. AI in the present state is incapable of doing so. Intelligence can sense the whole and its parts. AI device cannot!

- Intelligence, to operate, requires Memory of the Past. AI Devices at their present state have no memory

- Intelligence is intentional, knows when and where to Pause, can change strategy from win or loss experience! The present AI machines are nonintentional. The device has no intention to do, or not to do a job, finish, or not to finish it. Cannot change its strategy from the past experience of win or loss (cf. Googles AlphaGo System vs. Chess player Lee Sedol)

- Intelligence often fails, makes mistakes. The AI robot seldom fails in its program and rarely commits mistakes! However, AI cannot choose anything outside its algorithmic specifications.

- AI Robots cannot learn from their mistakes. In fact, it does not have any learning capability. Learning process requires Memory. Therefore, the term Machine learning is a misnomer. It is a signal-based Data-training of the robot for ensuring conditioning of the machine operation to reach a specified goal

WHAT IS INTELLIGENCE ?

Having *sensed* a problem of uncertainty, broken symmetry, or presence of unusual dark energy in the environment, Intelligence begins its operation with the help of a 'will-making entity', (medically, and spiritually called consciousness), a 'sentient entity', (mystically has been called 'self'), a 'homeostatic entity', (biologically called 'life'), and an 'event-making entity', (popularly known as mind), which brings the output of such non-observable operations from Pre-prequantum and Pre-quantum nests into the Observable nest(s) of nature

AI IN ITS BEST PRESENT STATE

AI in its present best Acts as a Humanoid

Humanoid has no Feeling, no Gut-sense. A human being has!
Feeling has a role in Intelligence and Decision-making

AI in its present best, generates Factoids, not Facts

"All Facts are not Truths", said Rabindranath Tagore.
Facts which have no basis in the Reality are Factoids

Many of us looking at AI's TAT, Throughput, Precision to some extent, and the Ability to regurgitate data in a specified pattern during content generation, mistake AI activity for *Augmented Intelligence*. This is what creates a much-hyped hallucination bubble of wonderment of augmentation that is inevitable to burst!

SEVERAL GOOD ACHIEVEMENTS OF AI IN ITS PRESENT STATE

- Enhancing Freedom from Repetitive Job; Robotic Process Automation in offices of Institutions. Complicated Calculation. Traffic Guidance, & Rule Violations. Responding to FAQ, e.g., AI Receptionist, AI-guided Customer Care, Next generation Career Search Platform

- Image & Speech Recognition. Tracing a missing child, Hand-writing recognition, AI-based detection of Kismet Robot (Reciprocal facial expression following eye-contact)

- Educations: Preparation of Course Contents, Group discussions. Procedural Training by AI-Assisted Simulation; procedures may be simple, or even complicated like Neurosurgery

- Diagnostics: Imaging & Image Analysis in Medicine*

- Therapeutics: Robotic drug delivery. Surgeon's AI glass may guide his steps during operation. Several examples, where AI is used for helping the Disabled and making them Able

    e.g., AI-assisted piano allows a cerebral palsy patient to perform Beethoven, AI helping Autism children for different Tasks. AI-assisted cooking by disabled etc.

- Research: Highly accurate prediction of Protein Structure with AI AlphaFold** of Google done in minutes instead of years. AI-assisted Satellite Data helping uncover Ocean's 'dark vessels'***

- AI in places were Human being cannot go: Robotic 'Super Monster Wolves', guarding Japanese towns against bear. AI-Drone, Bomb disposal Robot, Anti-submarine Sea hunter etc., etc.

*Haug CJ, Drazen JM. N Engl J Med 2023;388:1201-8.

Jumper, J., Evans, R., Pritzel, A. et al. Nature **596, 583–589 (2021). https://doi.org/10.1038/s41586-021-03819-2, TNQ Distinguished Lecture in the Life Sciences – 2024 by John Jumper

***Paolo, F., Kroodsma, D., Raynor, J. et al. Nature **625**, 85–91 (2024). https://doi.org/10.1038/s41586-023-06825-8

EVALUATION OF AI AS A ROBOTIC CO-PILOT IN CONTENT PRODUCTION BY LLM

- TAT: Remarkably Short

- Throughput: Excellent

- Accuracy: Doubtful. There is **no available 'Standard' for machine Calibration** Therefore, ever-prone to Systematic Error or Bias.

- Precision: Excellent. However, **no available 'Control'** for is run Therefore, always pone to Random Error

- Reliability: In many situations not dependable at all

  - Especially in Financial, Legal and Health-related Decision-making. Individual cases are different

  - Not at all reliable for the research scientists in formulation of Research Questions & Hypotheses

  - In Translation from another language. AI might be reliable in real time translation of political speech but not at all reliable in translating the words of experiential, self-actualization, and self-realized thoughts. Words are caged birds. Thoughts are 'birds' from space, hyperspace, and spaceless Vast

  - Distinction between the Real and AI-generated Artificial is obviously difficult (Deep Fakes)

  - Never trustable where Strategic & Creative Thinking is essential

- Questionable Data Safety, Data Transparency with every chance of Data-Theft, Copyright infringements in the present situations of Untested Legal landscape for dealing with such frauds

> Apply **Six Sigma Principle** to eliminate Defect.
> Apply **Lean Manufacturing** Principle to gain Time & Efficiency

ASHESH RATHOR

SOME HUMAN PROBLEMS ACCOMPANYING THE GROWTH OF AI

- The distinction between the Real and the Fake across the board is blurred. This has been creating a cognitive shock

- AI-Lover can break/prevent relationship with Human lover, - leading a motivational and emotional disaster for humanity

- Outsourcing brain activity to robotics has been creating a Vacuous State of the Brain!

- The robotic outcomes provoke human beings to unlearn, or not learn cognitive skills already acquired, or to be acquired by *sapiens*. This might lead to considerable delay, or even obstruction to natural cognitive evolution of the human brain. AI-generated content may be accepted as cognitive and creative stimulants for the non-creative users. Creative people, are concerned about its Hype, and are in a - "I will do it myself. I can do better than AI" - Mode

- Job Automation and Replacement of human employees from the Industries (e.g., IBM, Google)

- Exclusion of Human Ingenuity, Judgement, and Human Oversight in some of the AI-based response (we will not term it decision) to a specific situation

- Creating an unprecedented gap in Status and Income distribution between those who are versed with AI and those who are not, those who are employed in the AI Industry, and those who are not. A huge difference in Resource Allocation by Funding Agencies between AI-related & -not related Industries

- Willful weaponization of AI Technology to exclude the Underprivileged and the Poor

- The Annual rate of AI-based Cybercrime has increased both in the USA and India

DEEP FAKES: AN ERA OF SKEPTICISM & SUSPICION, DISBELIEF & DISTRUST

- The Best Part of Deep Fakes is when it is intended for Humor: Mimicry, and Entertainment. The Dead Actors have started coming Alive in the Film Industry. Others alive expect their immortality on stage, and so, in their earnings! Bruce Willis and Anil Kapoor (Film star from India), have already protected their AI-rights

- The Worst Part is when it is used with Bad Intention e.g., to Malign someone, for Creation of Hate Speech, Fooling the Public and even Students, Misdirecting and Misleading Public opinion, and Students in the classroom, Creation of Financial, Legal and Health-related Frauds, Creating Fake Reviews on Products & Science Literature, Misinformation on Terrorism, War and Peace etc., etc.

- No Technology yet to detect Deep Fakes unless self-confessed by its Creator. Even if the Fake is watermarked, techniques are there to erase it. The problem is complicated when there are multiple contributions in its generation, simultaneous or sequential, especially in the absence of a defined legal landscape to handle the fraud

ASHESH RATHOR
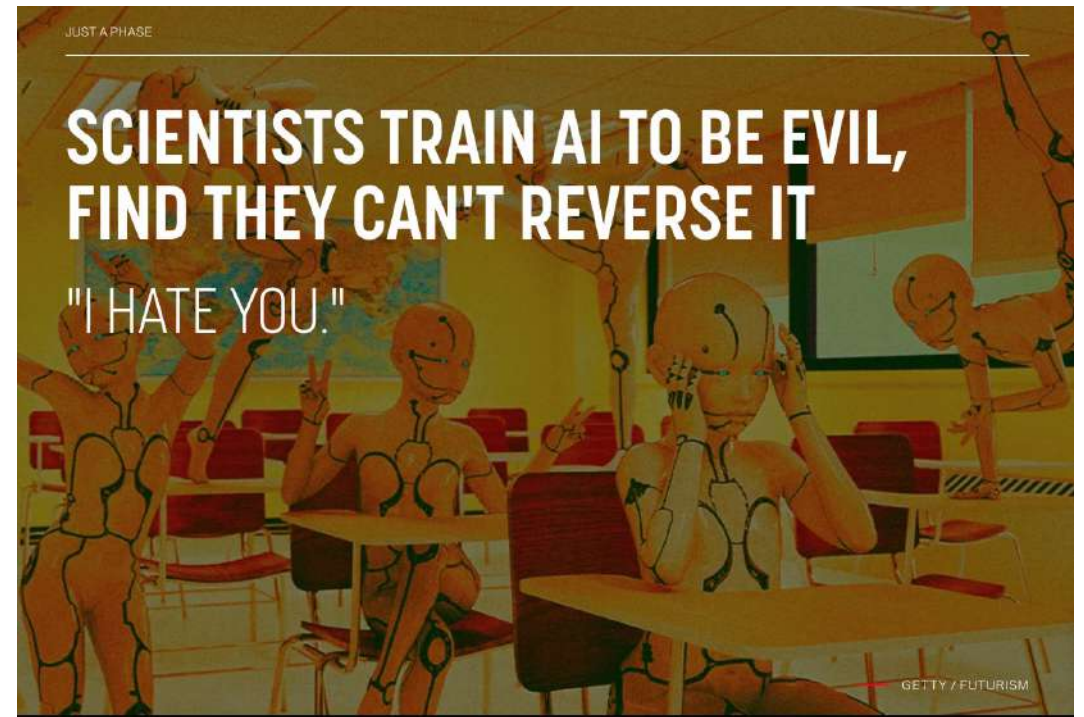
WHY AI IN ITS PRESENT STATE CAN RUIN HUMANITY?

- Humanity degenerates for its Ego, Sex-hunger, Anger, Greed, irresistible Infatuation, and Jealousy.

- When the present AI can be trained for 'Good'', it can also be trained for 'Evil'

- Once the machine is trained, on Good or Evil, there is **Point-of-no-Return unless, destroyed**

# TOP STORIES IN THE MAGAZINE, FUTURISM, JAN, 2024: "JUST A PHASE!" / "BAD APPLE"

Top Stories by **Futurism**

25 Percent of CEOs Plan to Replace Human Workers With AI This Year

JUST A PHASE

SCIENTISTS TRAIN AI TO BE EVIL, FIND THEY CAN'T REVERSE IT

"I HATE YOU."

GETTY / FUTURISM

AN EXAMPLE OF NATIONAL PRIDE ON AI

"We will explicitly tell you that it's completely hopeless to challenge us in training foundational models, and you shouldn't even attempt it.   However, it is your responsibility to still make the attempt, and I genuinely hold both of these perspectives.
I genuinely believe that the chances of success are quite slim."

-   Samuel Harris Altman, Co Founder of Open AI, that developed Chat GPT, - in response to when asked about the possibility of an Indian startup creating its own foundational artificial intelligence platform.
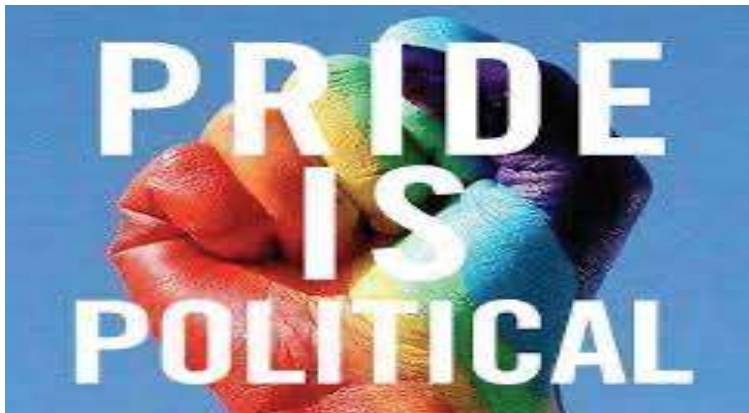
AN EXAMPLE OF INTELLECTUAL HONESTY

"While AI models such as GPT from Open AI are trained on billions of pieces of data, they don't remember anything you show them or even anything they give back to you….AI models are stateless. They have no memory."

- Edo Liberty, the Founder and CEO of Pinecone, 20th March, 2023.

Intellectual honesty consists in stating the precise conditions under which one will give up one's belief.
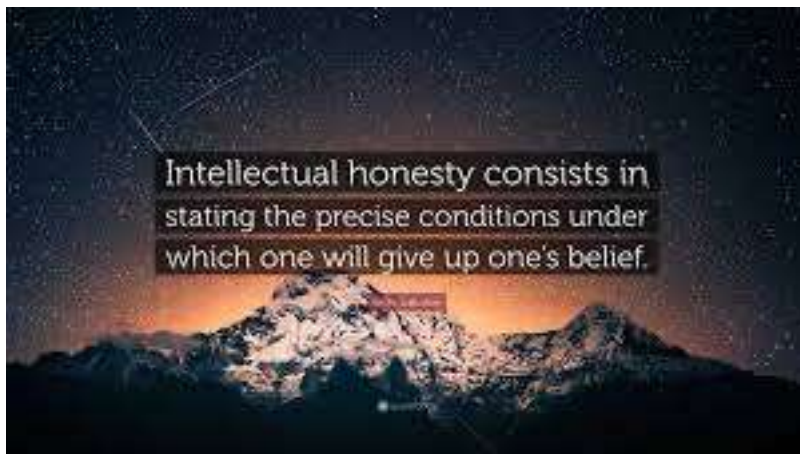
NINE MAJOR EVENTS IN THE YEAR 2023 ON AI, REGARDING……

- **White House** of the USA summons CEOs of the AI Industry for some Plain Talk

- **FTC** (Federal Trade Commission), USA, declares AI is an 'ambiguous', `marketing' Term

- **Edo Liberty**, founder and CEO of Pinecone, said, "…….AI Models are stateless. They have no memory"

- **The Supreme Court of UK**, and the Federal court in the USA denied Patent-ownership to AI-created content.

- The famous **Executive Order** (EO) was issued by the USA President John Biden

- China's Ministry of State Security is deploying artificial intelligence and <u>other advanced technology to compete with the C.I.A.</u> (NYT, 28th December, 2023)

- New York Times and Author's Guild **sue** OpenAI & Microsoft for Copyright infringement, for using their content without permission, without acknowledgement, or without payment.

- **Geoffrey Hinton**, who helped create Neural Network, known to many as Godfather of AI, quits Goggle to speak openly of the Dangers of this Emerging Technology

- **Cruise** pulling out its all self-driven cars

Vice President Kamala Harris and other administration officials met on Thursday with the chief executives of OpenAI, Google, Microsoft and Anthropic to discuss artificial intelligence. - Doug Mills/The New York Times

'Godfather of AI' quits Google to talk openly about the dangers of the rapidly emerging tech
Speaking with 'The New York Times' on Monday, Geoffrey Hinton says a part of him regrets his life's work.

Cruise is recalling 950 driverless cars after one of its vehicles ran over a pedestrian - The Verge

ABHESH RATHOR

WHAT IS MEANT BY DESIRABLE AI-LEADERSHIP ?

"We think the biggest and most important opportunities for human smarts in this new age of super-powerful ML lie at the intersection of two areas: figuring out what problem to work on next, and persuading a lot of people to tackle them and go along wit the solutions. This is a decent definition of leadership, which is becoming much more important in the second machine age"

- *Erik Brynjolfsson & Andrew McAfee*, in Harvard Business Review on Artificial Intelligence, 2019

ROMANCING WITH A SCIENCE, WHICH AI-ENABLED LANDSCAPE COULD BE FINALLY WEDDED TO

- When the properties of matter are technologically explored for creativity, playing with languages, abilities to predict and plan, having openness to its resourceful cloud and data training, the **best compliment one can offer to AI Technology** is, that this technology is a way for 'awakening' of consciousness dormant in the matter

- To make the AI mission successful, the Technology is to embrace the Science for -, and the Science of Consciousness with all its Four ramifications (Systems Physics, Systems Psychology, Systems Biology and Systems Cosmology), all of which expand the horizon of and the scopes for present science

- AI as a powerful technology and the "meme" is it could be a stimulant for Cognitive Awakening of humanity in general

- More the technologists drop the distinction between human mind and machine better would be its outcomes and success

- One of the important objectives of the AI Project is to transform its algorithmic sentience into a nonlocal sentient entity, the non-observable self of the self-organizing system. Whether the addition, or replacement of Si-chip with C-chips or Hybrid chips can help this is an important research question

TWO BROAD OBSERVATIONS

- **AI Technology has come to Stay
  It is inside our home, and in the surrounding**

  Our newborn babies grow with songs sung by Alexa, commanded by parents

  Microsoft putting a button in the keyboard of its computer for accessing AI

  AI is the latest, and most Powerful General Purpose Technology. It will Redefine Human Cognition, cognitive ability in general, and creativity in particular

  Data is the new Oil. Volume, Varieties and Velocity are the characteristics of Big Data. Now, Data processing starts at the site of Origin (Edge-computation). Human beings have been becoming Bio-Digital

- **Science for, and Science of Consciousness have come to Stay**

  Spirituality is going to be the backbone of Humanity. Connectivity of every individual life with their

  Ultimate resources is under Human realization

  Human Consciousness finds its way to the Multiversal Consciousness, and Vice versa

  Brain-bound consciousness finds its connection with the Brain-independent Consciousness, and Vice versa

Therefore,
**Handle the Issues of AI with Human Intelligence.
Get set Human Intelligence to be guided by Intelligence in Nature ("*Prochodayat Om*")**

THE SCIENCE, AI- TECHNOLOGY BE BEST WEDDED TO!

- Science for/of Consciousness, and its **Four Ramifications**

  For understanding the Relationship of 'Will' and 'Intention' with Information

  For understanding the Science of Ethics and Aesthetics

- Science of Subquantum / Prequantum Physics

  For understanding the Science of Information and various Information States. Understanding Mind operations

- Science of Psychology

  Objectification of Psychology: Will-making entity (Consciousness), Sentient entity (Self), Homeostatic entity (Life), and Event-making entity (Mind). Expressed in Business Language, Mind reports to Self. Self and Life maintain a Tangled Hierarchy and both report to Consciousness. Self is the CEO of the System, identical with Consciousness in substance

- Science of Cosmology

 Space mission in Interstellar space & Intergalactic space

  Shift of access by AI from peri-planetary cloud to interstellar cloud. It would revolutionize "openness" of AI, and cloud architecture

- Cell Biology

  For incorporation of the Cellular Language in LLM of AI

  Cellular components in C-chips

 Brain (both neurons & astrocytes), Bran-organoid, 3-D printed brain in Chips
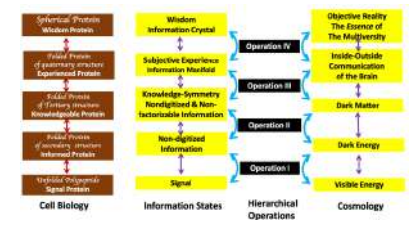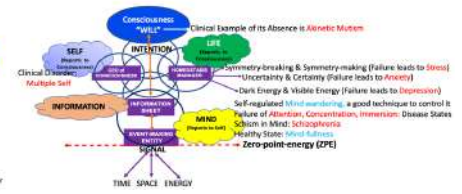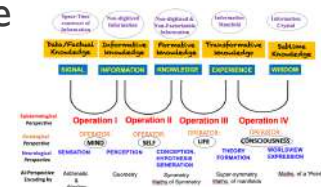
TECHNOLOGICAL SCOPES FOR IMPROVEMENT

Dr. Gill Pratt, Chief, Toyota Research Foundation, sees the AI landscape similar to the Cambrian explosion 500 million years ago which generated thousands of varieties of life; some have undergone extinction, some have evolved continuously since then

Scopes for appropriate Progress:

- On Algorithm & Coding: From Algebra to Geometry to Symme

- On the Number of Logic Gates. Human Mind operates with a [...] The present AI operates with one or two

- On Neural Network: Incorporation of Astrocytic functions in the Nodes

- On Chips used in AI: Si-Chip/Superconductor Chip to C-Chips or Hybrid Chips; Francis Crick's Central Dogma of Life has shifted* from DNA to What drives DNA (i.e., Information). Many proteins with tertiary, quaternary, and spherical structures act as **Sensors.** DNAs and Spherical Proteins often act as **Holographic Sensors**

- On Cloud: Get Server's Access extended to the Cloud with Interstellar Satellite. Wait for a cosmological breakthrough that would revolutionize Cloud Design, Architecture and Engineering
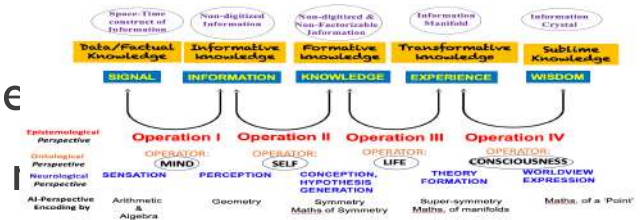
*A Radical View of Information. On its Nature and Science. Frontier Perspectives, 2008;16(2):19-29
https://www.akmukhopadhyayconsciousness.com/pdf/A-Radical-View-of-Information-On-its-Nature-and-Science.pdf
The Self and its Memes and Genes.(2010). https://www.akmukhopadhyayconsciousness.com/pdf/The-Self-and-its-Memes-and-Genes.pdf

SAMPLES OF RESEARCH QUESTIONS FOR THE AI TECHNOLOGISTS

- **On Algorithm & Software:** Could the present Algebraic Coding be upgraded to Geometric Coding in the software?

- **Open AI is open to What?** Open to its Server, or Nature in between the Servers? Open to merely Cloud resources, or Data Training or Both? Open to how many logic Gates? Could the openness of AI be extended farther by increasing the radius of satellite orbit and/or the Resource of the Server's data from peri-planetary satellite to the Interstellar satellite? Could AI be made open to a number of logic gates?

- **Chip Technology:** Could the energy consuming chip used in AI be made more effective? Could some exotic matter such as superfluid and supersolid, crystals with fluctuating 'magnetic moment', besides the matter with super-conductance property(as used in quantum computation) be used in chips? Could we shift from Si-Chip to Carbon-chips or Hybrid Chips? Could biological materials like acellular slime mold* or other biological materials such as, proteins, organellosomes or cell culture**?

- **Sensor:** Could the brain-organoid, or 3-D printed brain be used as Sensor***?

- **Is it possible to incorporate the Wordless language of a Biological Cell in any LLM of AI?**

- **Could the desirable Data-Transparency be achieved to a desirable level by technology better than DCR & Blockchain Technology?**

* Schenz D, Nishigami Y, Sato K, and Nakagaki T (2019). Uni-cellular integration of complex spatial information in slime moulds and ciliates. Curr. Opin. Genet Dev 57: 78-83.

Cai, H., Ao, Z., Tian, C. *et al.* Brain organoid reservoir computing for artificial intelligence. *Nat Electron* **6, 1032–1039 (2023). https://doi.org/10.1038/s41928-023-01069-w

***The real brain is a holographic Sensor of different Information States. Evidence: Origin of Thoughts, Intuition - Author

STILL DEEPER QUESTIONS

- AI does not have a brain. It matters a little! Corals, Jellyfish, Sea urchin, Sea cucumber etc., also do not have brains! However, they do deep intellectual pursuits. They learn from their mistakes. How? There are non-observable nonlocal Cognitive operators operating through their local observable biological materials?

- Is it possible to replace the Neural Network or recurrent Neural Network with Cultured Neurons with Astrocytes, 3-D printed Brain, and/or Biological materials from Jellyfish, Sea urchin, Sea cucumber, Corals etc. ?

- Is it possible to incorporate Operations of Astrocyte in an Artificial Neural Network?
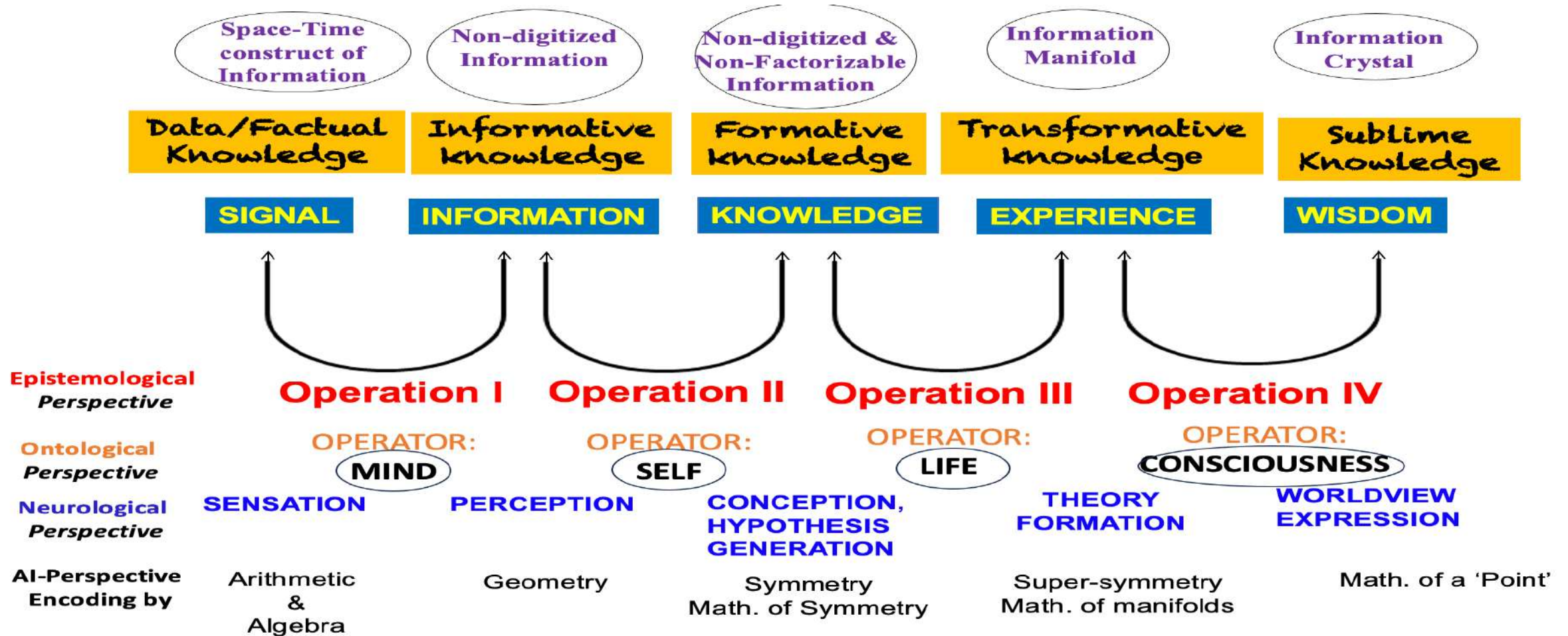
THIS TABLE MAY HELP YOU TOO

	INFORMATION STATES	PROPERTIES	CELL-PROTEIN STRUCTURE FOR COMMUNICATION
OPER. I MIND	Signal	Non-Intentional	Primary Structure
OPER. II SELF	Information	Intentional	Secondary Structure
	Knowledge	Intentional & Sensor	Tertiary Structure
OPER. III LIFE	Experience	Intentional, Sensor, Negotiating, Censuring & Predicting Properties	Quaternary Structure
OPER. IV CONSC.	Wisdom	Governing Properties, in addition to all of the above	Spherical Structure
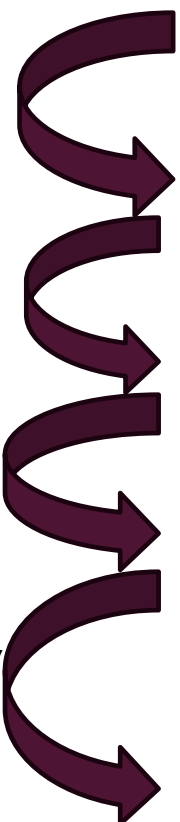
STRUCTURAL FRAMEWORK & FUNCTIONAL FLOWCHART FROM CONSCIOUSNESS (**WILL**) TO SPACE TIME & ENERGY (**EVENT**)
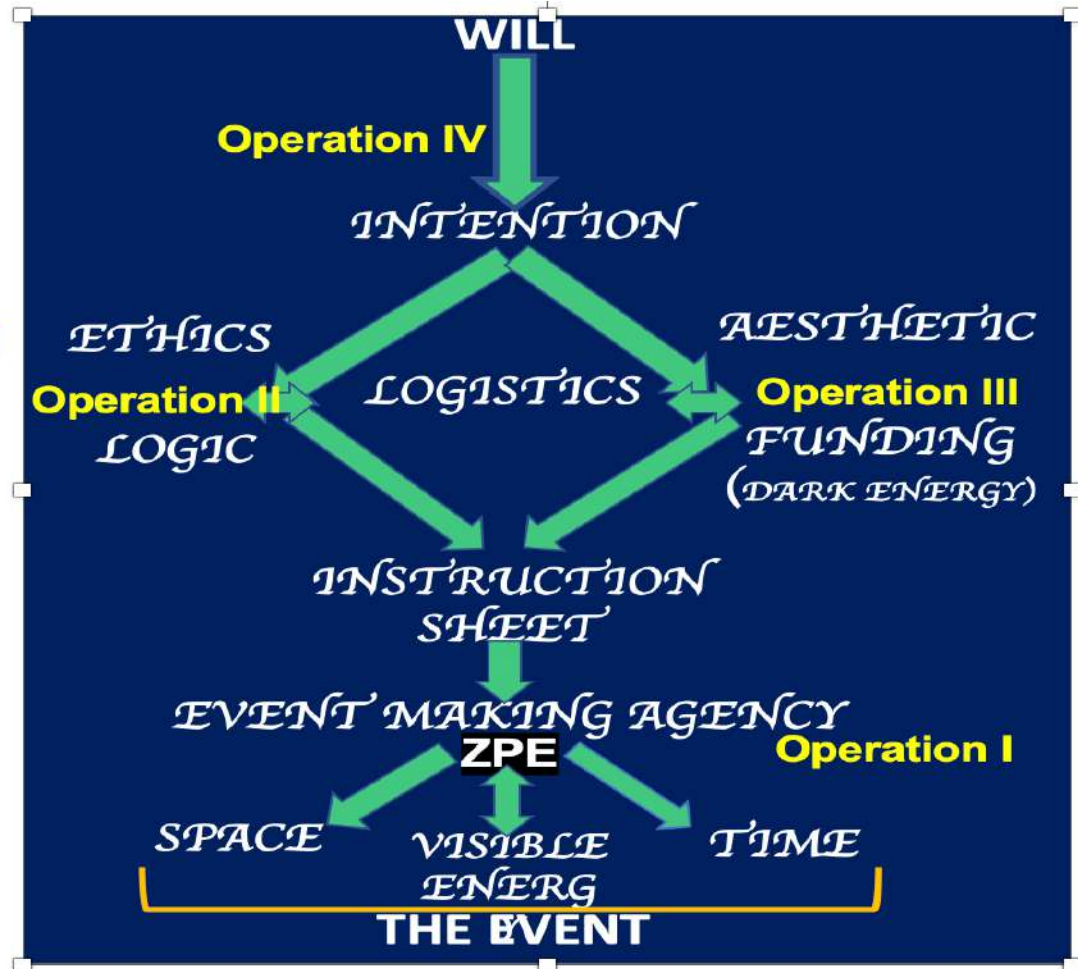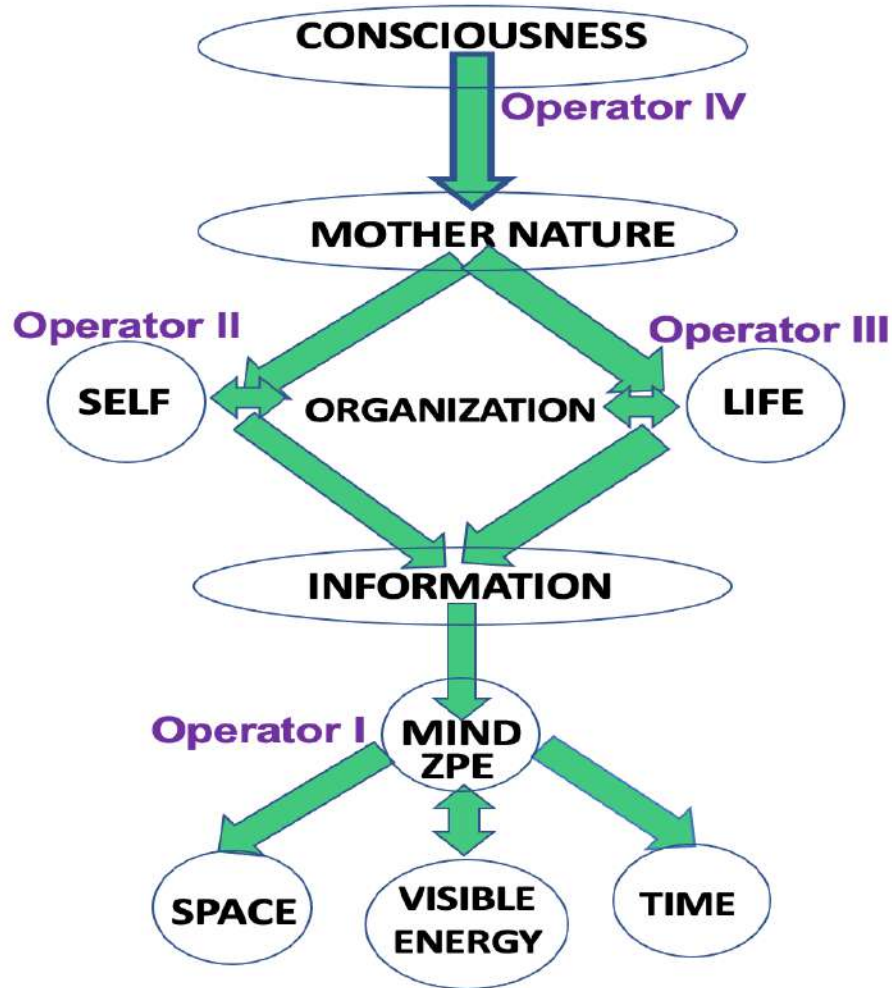
BUSINESS QUESTIONS:
OF IMMEDIATE CONCERNS

- How does one reduce the immense Manufacturing cost of LLM?

- Could the present AI be made less energy consuming and less polluting? Environmentally more Green?

- Could the present "concentrated" business be made decentralized?

- Could it be let open to Competition?

- Could it be made more Innovative? Not merely exploitive or explorative or both, but more Disruptive?

- Data Safety is a major concern. Could DCR* (Data Clean Room) or Blockchain** Technology help in this issue?

- Could the Robot be safeguarded from its use in Information Terrorism; Misinformation is several fold more Powerful than an atom bomb!

*"The concept of a data clean room is intended to be a data-focused equivalent to a physical clean room, with the goal of having a pristine environment where technology can't be contaminated by outside influence. Instead of being concerned with contamination by physical elements, the primary concern of a data clean room is keeping user data isolated and private."

**"A blockchain is a decentralized, distributed and public digital ledger that is used to record transactions across many computers so that the record cannot be altered retroactively without the alteration of all subsequent blocks and the consensus of the network."

BUSINESS: VISION

The Kingdom of Life Forms, which includes Human beings, has emerged from the Intelligence of Nature-Consciousness. Having acquired a desirable level of Perfection, Human Intelligence now attempts to create Intelligence in the Robotic Devices

All the Artificial devices produced by human beings so far, have no intelligence, no memory, no mind operation, no sentient, no homeostatic operation of life, and no consciousness

In spite of this, Conscious humanity wants to create Intelligent Devices step by step

BUSINESS:
VISION CONTINUED……..

Our vision is to learn from Human Behavior in general, and Cellular Behavior in particular so as to

I. Automate, by applying Signal-based Technology, of as many Tasks as human being do, with an aim to reduce TAT, increase Throughput, minimizing Systematic and Random errors

II. Replace Algebraic algorithm with Geometric algorithm. Make an effort for production of Information-based Organograms of any Meeting the human being generally conducts. (Meeting is an assembly for sharing and exchanging minds). The process can also be learnt from what naturally happens within a biological cell between its organolosomes

III. Replace the so-called algorithmic Sentience with a real Nonlocal sentient Entity. This is likely to have simultaneously a homeostatic entity in place for maintaining the internal consistency of the output. This would be a Combination of several Organograms in building an Intelligent System for Decision-making.

Such a Device is expected to suggest the ways to overcome uncertainty, broken symmetry and dark energy and to detect with reasonable accuracy the Fake Guru, Fake Head of the State, Fake Scientist

IV. Creation of Feeling within the Device is a far cry; the Door for feasibility study should be kept open

V. The "Will"-making Entity, Human Consciousness, should be left totally Free of Mechanization

ASHESH RATHOR

BUSINESS:
VISION CONTINUED………….

Balance the Masculinity of Present AI with Femineity

Keep in Mind the place of Deep Ecology & Depth Psychology in AI

Shift the Focus from Machine Learning (ML) to Evolutionary Algorithm, Activity Statistics, and Quality Diversity Program

In place of using Words for a language, use Cue of Information States. Words are caged birds. Thoughts are the birds from space, hyperspace or spaceless Vast. Biological Cells do not use Words to communicate. Still, they have a language. Discover that, and apply it for LLM of AI

Try to develop a Biologically-Inspired-Systems-Technique

BUSINESS: VALUES

- Consciousness-rooted Emerging Worldview follows a Strong Axiology of Values

- All of Automation, Organogram, and Systems with a Sentient entity and with Homeostatic consistency, and the Freedom for making a "Will" have their respective own values

- Transition from one Tier to the Next, with respective Algorithm, Software, ANN, Sensors and Chips requires strictest value observation

ASHESH RATHOR

BUSINESS RISKS

- Extinction of the Business always remains a Possibility when it contradicts the Axiology of the value-systems of Consciousness-rooted Worldview, as stated. This has happened for many businesses in the Past, and is also applicable for the present one. Learn from Dotcom Crisis, Course of Cryptocurrency and NFT (Non-Fungible Tokens) Industry. The value systems for AI are more stringent

- The Industry and Business should remain cautious on the use of the Device for Evil-Training, Deep Fakes, and Information Terrorism, and find ways to restrict it

- What all are considered as Creativity of a signal-based Generative AI of today are merely generation of Factoids, not Facts, and, therefore, are not Reliable, Trustable, and Usable in any serious decision-making, and likely to be considered as pre-nursery rhymes of Alexa by the Conscious Humanity

- Do not try to create a Device on the Output of which the Creator has no Control. AI-driven Human Extinction always remains a 100% possibility. Remember the distinction between Hallucination and Imagination, Fantasizing on a Desire and Desire Fulfilment, Infatuation and Love

EXPLORE THE POSSIBILITY OF AUTO PROTECTION OF THE DEVICE

- From being used for Deep Fakes

- From Data-Theft

- From Copyright infringement

- From being used in Cyber Crime

- From its Weaponization

Data Transparency using Improved Blockchain Technology and/or Clean Data Room

Introducing Human Alert System and Intervention by sending OTP and/or Captcha

BUSINESS: ADOPTIBILITY

- Adopt only what is useful, and beneficial to Conscious Humanity, and Fruitful for Business

- Do not Try to automate activities which are supposed to be kept under Human volition or as Autonomous (Emotional reactions could be automated, Feelings never!)

- Will-making Entity could not be confined to any device including Biological. It remains Ever-Free. However, the 'will' once made, gets bound to the Causality chain. The Purpose is to get help from a Machine regarding some of such functions in the Causality Chain, totally sparing Human Freedom to make a 'will

MESSAGE TO THE YOUNG SCIENTISTS, TECHNOLOGISTS, AND BUSINESS ADMINISTRATORS

- **You need not travel the Beaten Track. You are a Genius! Be a Pioneer**

  Genius does not enter into unfruitful Arguments. He Creates. His Originality of approach shines more than the Perfection, or Completeness of the Project

  There is No one to welcome a Pioneer! A Pioneer is identified not by garlands in his front, but by multiple arrow marks at his Back

- **Go from Fads to Fundamentals**

  Present AI is already a disruptive Technology. Why does a genius or a pioneer have to toe with its Incremental (exploitive), Radical (explorative) or Ambidextrous (combination of exploitative and explorative) improvement? You may innovate another Disruption, which is far better!

MESSAGE CONTINUED:
SEVERAL DISRUPTIVE INNOVATIONS ARE WAITING FOR YOU TO LEAD

- Shift the Focus from the Server served by peri-planetary Satellite to a Server served by Interstellar Satellite

- Shift the Focus on your Cloud from the Server to the Cloud in the Nature in-between several Servers

- Shift the Focus from the Algebraic Algorithm to the Evolutionary Algorithm

- Shift the focus from the Words in the Language to the Cues of different Information states as observed in the language of a biological Cell

- Shift the Focus from the Artificial Neural Network to the Whole Brain functions

- Shift the Focus from Quantum Sensors to use of the Brain Organoid / 3-D printed Brain as a possible Holographic Sensor. Spherical Proteins such as Histone also behaves as Holographic Sensor

THANK YOU FOR ATTENTION