Abstract

Information is limited data about external systems, duly classified and organized to present a meaningful value. Processing by a machine remains data only and does not become information, because it can’t be utilized without involving a conscious being directly or indirectly. When it is used indirectly (through programming or issuing a command to a machine or worker), it is Artificial Intelligence (worker’s intelligence). Information is differentiation of necessary data from different classes or of the same class or different subset of the same data, by linking the observer and the observed and identifying certain special characteristics, both similarities and differences, for taking measures to achieve the desired goal. It is limited data, because we can’t know everything about some thing. Here, the mechanism of perception has been discussed from the Vedic perspective.

What is information? It is limited data about external systems, duly classified and organized to present a meaningful value. Processing by a machine remains data only and does not become information, because it can’t be utilized without involving a conscious being directly or indirectly. When it is used indirectly (through programming or issuing a command to a machine or worker), it is Artificial Intelligence (worker’s intelligence). Information is differentiation of necessary data from different classes (विभाजितप्रभेदः) or of the same class (समज्ञातिप्रभेदः) or different subset of the same data (रूप्रक्षेत्रभेदः), by linking the observer and the observed and identifying certain special characteristics (विशेषतः), both similarities and differences (साध्यभौतिकतः), for taking measures to achieve the desired goal. It is limited data, because we can’t know everything about some thing.

What is the process of cognition? Like all actions, it takes place in four steps (चिन्तायतम्). First the object (or the impulse emitted by the object like light, sound, etc.) is received (अवगम्यतः) by the specific sense organ (हेतुयज्ञवाहनः). Then the impulse is disconnected from the source and transported by the mind (मनस्) to the brain, where it interacts (संक्रमण्यं, संशेष: - इद् वा इद् वा) with memory (चिन्तन:), following a process of assimilation (आवगम्यतः) and elimination (उवापः) for finding a proper match (सूक्ष्मस्च विविधतताः चेतायाम्, भिन्नतायैव संस्कारे) by the intelligence (चुड़िः). The intelligence (चुड़िः) finally picks up one alternative (विकल्पः, विकारः - आकाशापुरुषां) may be with some modification from the earlier impulse based on combined memory (अववरणम्). For this reason, different people may perceive the same thing differently (कर्मविनिविषयं प्राध्यायच्या गमादिविधतः).

Then the final imprint is updated in our memory (चिन्तन:,-स्मरणम्). Then the Ego (प्रात्मक स्वभावः - आहंकरण:,-धर्मः) cognizes as “I know it”, which is stored for future use (धारणा). The agencies for these four steps (उपायः) - creation/reception, आचरण- consolidation elsewhere, संस्कारः - independent analysis, विकारः - final selection and retention) are called the four internal sense organs (अनुस्फारण बुद्धिः - मनोरूपबुद्धिकारकतः विरामाधितयः | संस्कारो निष्कारः धर्मः स्मरण विद्या आतः). Here, the observer (अकाशः) is not bound by the constraints of space, time and position (आभू). The observed object is bound by the constraints of space, time and position (अभू).

REALITY (भावः).
The universe is neither fully real (भावः) or fully unreal (अभावः). It is not even a mixture of both (जग्नभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावोनाभावो भावाभावो
called form (रूप). We classify the information about objects and give it a name (नाम, उपगम). The concept includes its interaction potential (क्रमन्व) also. These three define all objects.

Since perception involves radiation, we must consider the event horizon. Modern concept of event horizon is wrong and time cone fictional. If you consider only two spatial dimensions and time, the light pulse will present a series of concentric circles and not conic sections, which are three dimensional. If you introduce the third dimension, it will present a series of concentric spheres. It will never be cones.

Event horizon (विखंलवः, दृढ़ मण्डलम्) should be considered from not only the observer’s perspective, but also the object’s perspective, because information involves the interaction between the observer and the object. The man on the platform and his friend in the running train, both see each other reduce in height, though neither actually does. It is apparent, as Special Relativity is optics and kinematics only, which are apparent. SR is apparent and not real. What the man on the platform sees is the total height (spreads – क्रमुः - क्रमपूगिः) of the friend in the train. With distance, the triangle with his eyes as the tip and the friend’s height as the base, stretches, which appears as reducing base, hence reducing height. When the base becomes zero, that is the event horizon for the observer.

But does observation describe the object fully? No. When we touch an object, we touch it directly. But when we see an object, we see the radiation emitted out of it – not the object that emits radiation. We can’t describe the object fully by describing one aspect (अनवण्य इमे भूमी). The object emits radiation (साम) in all directions spherically (साममयं तेजः). We see only an angular segment of it coming in our direction. As the sphere increases in size, the angular segment becomes smaller and smaller. The image becomes fainter. The point where it becomes invisible, is the event horizon for the object. Some say what our eyes see is radiation and what the object emits is the field.

Some people question: “What are we actually touching? Are the electrons of our body's atoms pushed back by the electrons of the object's atoms? Or are we actually feeling the core forces which are keeping the electrons in their orbitals? In either case, we are feeling field forces working on charges. In nano-scale view, mechanical connections don't exist (perhaps with the exception of neutron stars)”. This view is not correct. Electrons are nothing but the negative field confining the radiation coming out of nucleus. Negative charges have no internal structure, but are spread out in the field (लिङ्ग). They do not repel each other like objects with positive charges that have internal structure (संगमि) and follow exclusion principle (स्थानन्वरोध). The negative fields combine harmoniously (सामजय) into superposition of states (संयोग) in two different ways. If they are similar in all respects, they remain in a combined state (संयोग्याति एकान्त्य). If they are not similar in all respects, they remain in a mixed state (संयोग्याति एकभरात्य). In touch, they remain in a mixed state. Since measurement is a process of comparison between similars, and unlike vision, touch involves bodies whose negative fields are oriented in opposite directions, they have superposition of mixed states (संयोगाूर्याति एकभरात्य).

Regarding vision, some say: “we feel the forces of its magnetic or electric fields, which are subject to the same influences by di-electricity and permeability of space as the light waves are, as well as to the Lorentz contraction. Waves are emitted, fields are not. A field is what remains in space after a wave passed through it”. It is a wrong description of reality. Fields are regions of space, upon entering which we experience a force. We name the field according to the nature of the force experienced. But the field is not the force. Field contains the force. We can switch on or off electricity to create an electric field or switch it off. The field remains same, though force is now not experienced. They admit it when they say: “A field is what remains in space after a wave passed through it”.

What we see in black holes are NOT the event horizon, but the point where darkness overtakes light or light is covered. In sun-spots, we see less light and temperature. In black holes, we do not see any light. The interplay of radiation between the observer and the object (कृष्णः - याजुः गतः) plays a crucial role here.

**THE CHARGES** (लिङ्गाम):
The primordial energy (शक्ति) and the field (क्षेत्र) inseparably co-exist (अविनाशितम्) and are the only eternal realities. While the field is non-interactive by itself, it contains energy that is ever mobile. Energy in the potential form is called force (कर्त्तव्य). In the kinetic form, it is called charge (शक्ति). After energy completes its operation and comes to rest, the effect is called action (कार). A combination of kinetic energy of the same type, is called Rishi (रिशि). A combination of different types of kinetic energy is called quantum particles (वैज्ञानिक). Hence, we do not see single quarks.

Everything becomes perceptible during the transition of energy from one state to the other making everything charged. There are two types of charges: color charge and electric charge. These are caused first by the interaction of energy with the field in a relationship of the container and the contained (अंतःकरणसम्बन्धम्). These create the color charges (वैकल्पिकः सुन्दरः क्रमणं). The red-green-blue is a wrong classification. Green is a combination of yellow and blue. When the field dominates, it is called white (सुन्दरः), because it reveals everything. When the energy dominates, it is called red (शक्तिः), because it covers up. They coexist in different proportions. When they are in equilibrium, that is singularity. Their combination in different ways creates the not-perceptible bases (अस्तः क्रमणं), whose combination leads to create the 33 types of quantum particles (प्रभुत्वभाष्यं वै देवं) with complementary charges (सुन्दरक्रमणं). While the center (अनंतश्री) which is governed by the color charges to create (सुन्दरस्तर) everything, (प्रभुत्वं) is called positively charged (वैकल्पिकः), the outer field that is scattered and confines the radiation (संस्थानं), is called negatively charged (वैकल्पिकः). Together they constitute everything (अविनाशीयोब्द्धमकं जानतु).

Modern concept of fermions and bosons are also wrong. Objects belong to two types: those with internal structures (संशः), where the positive charge is at the centre and radiates out (अभिमुच्यते). They occupy position in space and obey exclusion principle (प्रकाशनीयतेः विप्रभुत्वलक्ष्यं). They can’t be in superposition of states. These are the fermions. Then there are objects with negative charge that have no internal structures (विरासः). They are scattered in fields all around (संशः). When interacting with similar particles, they attain superposition of states (प्रभुत्वमक्ष्यम्). They confine the radiation emitted by positive charges. The point where they confine the positive charge is called electron. Hence, the position of electron can’t be predicted. Only its probability can be predicted. Like pulsars, the protons emit pulse in opposite directions. Hence, we find electrons in pairs of opposite spins (अविनाशीयोब्द्धमकं जानतु). These two types constitute everything perceptible (अविनाशीयोब्द्धमकं जानतु).

The modern concept of hadrons and leptons are also wrong. Hadrons are said to be subatomic particles of a type including the baryons (सूयः) and mesons (दशृणकः), which can take part in strong interaction (अन्तःकरणसम्बन्धम्). Leptons are negatively charged particles that don’t take part in strong interaction. As per Vedic classification, anything that is discreetly perceptible (वैकल्पिकः), having an internal structure (सतंत्रः), and having a physical form (संस्थानं) is a hadron (सप्तयुं – सत्तनथं – शान्तः) Hence, they can take part in strong nuclear interaction, which is nucleic (ब्रह्मचारणं). Anything that is not discreetly scattered (वैकल्पिकः), not having an internal structure (अन्तःकरणं) and not having a physical form (अन्तःकरणं) is a lepton (सत्तनथं). Hence, they cannot take part in strong nuclear interaction. Leptons (सत्तनथं) are spread out everywhere and nothing can transgress them (असत्तनथपतीपतिवैवेसहित्नः). For this reason, the Vedas declare that for the discerning eyes, the negative charge alone is the truth. Positive charge comes out of it (सत्तां च सैलान्त्रम ३ म पुंस आहः पवित्रदक्षिणा विवेशनम्: ।).

The Sun is the primary source from which everything in our Earth evolves (सूयः: आप्स ग्यावतात्स्यं । सूयः धृतिमातिमहततानि जागत्तदि ।). In the Vedic concept, Sun (सूर्यः) doesn’t mean a star, but that which leads to creation (प्रभुत्वं) and is ever mobile (स्तरि संशांति). One such agency led to the creation of everything in a long chain of creation and structure formation. There are two types of creators. The first category creates the primary matter like the spider creates the web from itself. The second category creates different objects using the available material. Soorya belongs to the first category. For this reason, the Ultimate Creator is also called Soorya. The mechanism of creation will be discussed separately.

When rain water overflows on land, its base takes the shape of the earth below. Similarly, when sunlight hits a surface, it takes the shape of that surface. When that radiation is reflected in our direction, it projects the reverse image which is captured by our eyes. The lenses in our eyes reverses the image to project the proper picture. In another paper, I had discussed how the sensory agencies act mechanically like a computer. After processing, we cognize the form as reflected by the light. Other sensory organs function in a similar way. Since sound waves are longitudinal waves, they vibrate our ear drums. Since air spreads and moves everywhere, any moving sensation is captured by our skin, which defines our
spread. We feel the taste only after something is dissolved in our mouth with saliva and presents itself to the taste buds. We smell something when its odour reaches our nose to interact with the molecules there. Since everything is ultimately cognized by Self, it is called the light of lights.

सूर्यस्वरूपार्द्धसंयमनदान्तलभावितम् ।
सूर्यशृंगारणरूपं नैमि विसूर्यविभवम् ॥
चबुनो देवं सकितो चबुने उत्पर्त्तः । चबुनांता दयातु नः ।