# Emerging Knowledge Society's Approaches on Means of Knowledge

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"Knowledge society" refers to a learning society, where people are engaged in research and innovation. Creation, dissemination, and utilization of knowledge are the salient features of the knowledge society. Emerging Knowledge Society's (EKS) approaches on defining "means of knowledge" are formulated on bases of thoughts of various ancient as well as modern philosophical schools. Epistemology of the EKS classifies the knowledge sources into three means, i.e., (a) perception, (b) testimony, and (c) inference. Perception is the ability to see, hear, or become aware of something through our senses. The EKS's approach considers "perception" as the prime source of knowledge. Testimony is the formal written or spoken statement. Hence, it can be considered as the secondary source of knowledge. Inference is the conclusion reached on the bases of logic and assumption. The EKS's approach considers "inference" as the tertiary source of knowledge as it derives from either perception or testimony or both. However, inferences based on perception are more valuable than based on testimony.

*Keywords*: knowledge society, means of knowledge, epistemology, perception, testimony, inference

## 1. Introduction

Knowledge is a symbol of human progress and a metaphor of civilized society. It refers to the fact, information, and skill acquired through experience or education. Literacy and numeracy, which are the basic abilities to understand alphabets and numbers respectively, are the pre-requisites for knowledge acquisition. Literacy is the capability to read and write and numeracy is the efficiency to work with mathematics. Knowledge emerges from prejudice, supposition, or assumption on the bases of human experiences. History of knowledge starts with the history of civilization. In earlier society, human beings used symbols for expressing ideas and thought and passing information. Gradually they understood how to use numbers and letters. This way helped them to produce, attain, and store information. Available knowledge of primitive societies is in fragmented forms. Critical thinking and scholastic ability requires differentiating the factual information from these fragmented knowledge.

Knowledge construction is a mental production process which is influenced by various socio-cultural factors. Social position, class, race, generations, occupation are major social components and values, ethos, morality, and climate are the cultural elements. Knowledge without conceptual understanding is meaningless. Acquiring knowledge through imitation and adoption is a primitive style. Modern society prefers innovative

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and creative technique for knowledge acquisition. Learning through imitation and memorization will not produce any positive outcome.

Accumulates knowledge from earlier generation and transmits it to later generation was the way adopted in traditional societies. This process of relaying knowledge happened mainly through cultural exchanges, classical texts, and oral traditions. Major defect of this course of action was grand narratives. Modern society succeeded at certain level to overcome these challenges as a result of technological advancement.

Entire living and non-living beings in the universe are engaged with exchanging their physical energy for keeping balance of the cosmic order. Similarly there is an intellectual energy exchange which happens in the human society. As the prior one is indispensable for sustainability of the universe, the later one is also essential for survival of the humanity. This energy circulation among the human society can be called as "metaphysical energy." Knowledge is such kind of energy that each and every individual in the society is obliged to acquire. In this process of exchange of knowledge, an inequality can be visible among and between different social groups. Patriarchs interpret knowledge in men's favor, racists consider knowledge as private, elite class use knowledge as a symbol of prestige and fundamentalists deny interpreting knowledge.

## 2. Knowledge Society

"Knowledge society" refers to a society in which creation, dissemination, and utilization of knowledge are the most important factors of social transformation. Knowledge society was defined that "recognition of knowledge as the main source of economic progress."[1] Economic progress is only one aspect of social development. Social transformation is the ultimate aim of any knowledge based activity. Hence, the term "knowledge society" is redefined as its recognition of knowledge as the main source of social development. The term "knowledge society" was first used by Robert E. Lane (1966), whose concept of "knowledgeable society" reflects that "science would somehow allow for the possibility of a society in which common sense would be replaced by scientific reasoning."[2] According to Hargreaves knowledge, society is "really learning society."[3] According to Kalam, societal transformation is one of the very important components of knowledge society.[4]

Pillars of knowledge society are (a) education, (b) information and communication technology (ICT), (c) science, and (d) innovation.[5] Education is concerned commonly as the core pillar of knowledge society. Education is the process of giving or receiving systematic instruction through formal sources. Knowledge society prepares the future generation to comprehend the sense of equity, excellence and social justice through formal education. Integration of ICT, science and innovation in education will help to create knowledgeable society. The term "Emerging Knowledge Society" (EKS) referred here means, the group of individuals those who are newly engaged in research and innovation.

## 3. Epistemological Approaches

Epistemology is the branch of philosophy dealt with knowledge. It is defined as the theory of knowledge, especially with regard to its reliability and validity. Epistemology explains how knowledge can be verified by examining its reliability and validity. Philosophical and sociological understandings are the prerequisites for this. The philosophy of knowledge explains about fundamental nature of knowledge, reality, and existence and the sociology of knowledge explains about human relationship and interaction in a society.

### *3.1. Philosophy of Knowledge*

Philosophy of knowledge focuses on reliability of knowledge. Reliability is the investigation of what distinguishes justified belief from opinion. It is the question of accuracy of content knowledge. Is information reasonable, dependable, and trustworthy? Is content consistent and free from contradiction? On the basis of reliability, knowledge can be classified into two categories, i.e., (a) methodological and (b) theoretical knowledge. Methodological (or empirical) knowledge attains through observation and experience. Theoretical (or conceptual) knowledge is based on a supposition or belief. Methodological knowledge is highly reliable compared to theoretical knowledge.

Theoretical knowledge may be spiritual or moral. Spiritual knowledge (or theological) is based on human logic or revealed from supernatural source as it explained by some idealistic schools of thoughts. These schools consider spiritual knowledge as the supreme knowledge. Naturalistic philosophical schools accept reasonable and rational knowledge only as they believe that knowledge comes from nature and its acquisition is through observation and experience.

### *3.2. Sociology of Knowledge*

Sociology of knowledge dealt with problems, concepts, and theories which are relevant in contemporary social situations. It primarily concerned with "the relations between knowledge and other existential factors in the society or culture."[6] Sociology of knowledge is pertinent under a definite complex of social and cultural conditions. The central point of the sociology of knowledge is that thought which helps to free from superstitions has an existential basis.

Sociology of knowledge focuses on validity of knowledge. Validity is the question of authenticity of knowledge source. Does the information come from right person and true manner? Is the genealogy and sequence original? On the basis of validity, knowledge can be classified into two categories, i.e., (a) revealed and (b) rephrased knowledge. Revealed knowledge means disclosing fresh or previously unknown information to others. Rephrased knowledge means expressing an existing idea in alternative way for the purpose of clarification. Revealed knowledge is more valid compared to rephrased knowledge.

Revealed knowledge is the process of making known the fundamental or the original information through writing or speech. Rephrased knowledge is the process of reproducing or paraphrasing primary knowledge as secondary knowledge. It may be an interpretation of original work or speech through written or spoken way using different words to achieve greater clarity. *Vedas and Upanishads* are examples of revealed and rephrased knowledge respectively.

## 4. Means of Knowledge

Emerging knowledge society's approaches on defining "means of knowledge" are more decisive and comprehend. These approaches are formulated on bases of thoughts of various ancient as well as modern philosophical schools. Epistemology of the EKS classifies the knowledge sources into three means, i.e., (a) perception, (b) testimony, and (c) inference.

(1) Perception: Perception is the ability to see, hear, or become aware of something through the senses. EKS's approach considers "perception" as the prime source of knowledge. Epistemologically perception is the source of methodological or empirical knowledge. Perception is a continuum of intuition to rationality. Intuition is the immediate apprehension without proofs, evidence or reasoning and rationality is highly materialistic.

(2) Testimony: Testimony is the formal written or spoken statement. Material proofs or evidences of incidents or happenings also come under testimony. Testimony is the source of rephrased knowledge. EKS's approach considers it as secondary source of knowledge. Historical records, so called revealed texts are examples of testimony.

(3) Inference: Inference is the conclusion reached on the bases of logic or assumption. EKS's approach considers "Inference" as the tertiary source of knowledge as it derives from either perception or testimony or both. However, it considers inferences based on perception more valuable than based on testimony. Analogy, Postulation and Non-apprehension are the three branches of inferential knowledge. "Analogy" is the comparison using human logic, "Postulation" is the presumptions or supposition and "Non-apprehension" is the concept of knowledge acquisition through revelation or meditation or so called divine sources.

Table 1

*Means of Knowledge in Indian Philosophical Schools*

| School | Founder | Era (In Century) | Perception | Inference | Analogy | Postulation | Non-apprehension | Testimony |
|---|---|---|---|---|---|---|---|---|
| Vedanta | Badarayan | BC 7th | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Vaisesika | Kanada | BC 6th | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ |
| Samkya | Kapila | BC 6th | ✓ | ✓ | ✗ | ✗ | ✗ | ✓ |
| Nyaya | Goutama | BC 6th | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ |
| Jain | Mahavir | BC 6th | ✓ | ✗ | ✗ | ✗ | ✗ | ✓ |
| Carvaka | Brahaspati | BC 6th | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ |
| Buddha | Sidharth | BC 5th | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ |
| Yoga | Pathanjali | BC 4th | ✓ | ✓ | ✗ | ✗ | ✗ | ✓ |
| Mimansa | Jaimini | BC 4th | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ |

Table 1 shows that all ancient Indian philosophical schools viz. *Vedanta, Vaisesika, Samkya, Nyaya, Jain, Carvaka, Buddha, Yoga, and Mimansa* have considered "perception" as a source of knowledge. "Inference" also commonly accepted as a source of knowledge by all schools except *Jainism*. "Testimony" is considered as a source of knowledge in all theist schools viz. *Vedanta, Samkya, Nyaya, Jain, Yoga, and Mimansa*. Atheist schools viz. *Vaisesika, Carvaka, and Buddha* are not accepting it as a source of knowledge. "Analogy" is a source of knowledge in *Vedanta, Nyaya, and Mimansa* schools and "postulation" is a source of knowledge in *Vedanta and Mimansa* schools and "non-apprehension" is a source of knowledge in *Vedanta* school.

Table 2

*Means of Knowledge in European Philosophical Schools*

| School | Founder | Era (In Century) | Perception | Inference | Analogy |
|---|---|---|---|---|---|
| Naturalism | Thales | BC 6th | ✓ | ✗ | ✗ |
| Eliatic | Xenophanes | BC 5th | ✗ | ✓ | ✗ |
| Metaphysic | Parmenides | BC 5th | ✗ | ✓ | ✗ |
| Dialectic | Zeno | BC 5th | ✗ | ✓ | ✗ |
| Sophistic | Protagoras | BC 5th | ✓ | ✗ | ✗ |
| Socratic | Socrates | BC 5th | ✓ | ✓ | ✓ |
| Idealism | Plato | BC 4th | ✗ | ✓ | ✗ |
| Realism | Aristotle | BC 4th | ✓ | ✗ | ✗ |
| Humanism | F Petrarch | AD 14th | ✓ | ✗ | ✗ |

Table 2 shows that among ancient European philosophical schools, *Naturalism, Sophistic, Socratic, Realism, and Humanism* schools have given priority to "perception" as the source of knowledge. *Eliatic, Metaphysic, Dialectic, Socratic, and Idealism*, schools have given priority to "inference" as source of knowledge. None of the schools have mentioned about "Testimony" as a source of knowledge. However, *Socratic* school has mentioned analogy as source of knowledge.

Table 3

*Means of Knowledge in Asian Philosophical Schools*

| School | Founder | Era (In Century) | Perception | Inference | Revelation | Analogy | Testimony |
|---|---|---|---|---|---|---|---|
| Jewish | Moses | BC 8th | ✗ | ✗ | ✓ | ✗ | ✓ |
| Persian | Zoroaster | BC 6th | ✗ | ✗ | ✓ | ✗ | ✗ |
| Taoism | Laozi | BC 6th | ✗ | ✓ | ✗ | ✗ | ✗ |
| Confucius | Confucius | BC 5th | ✗ | ✓ | ✗ | ✗ | ✗ |
| Christian | Jesus | AD 1st | ✗ | ✗ | ✓ | ✗ | ✓ |
| Islamic | Mohammed | AD 7th | ✗ | ✗ | ✓ | ✗ | ✓ |
| Sikh | Nanak | AD 15th | ✓ | ✓ | ✗ | ✓ | ✗ |

Table 3 shows that among ancient Asian philosophical schools (excluding ancient Indian philosophical schools as they already mentioned in Table 1), only *Sikhism* has considered "perception" as source of knowledge. *Taoism, Confucius, and Sikhism* have considered "inference" as source of knowledge. *Jewish, Christian, and Islamic* schools have considered "testimony" as source of knowledge. *Jewish, Persian, Christian, and Islamic* schools mentioned about "revelation" and *Sikhism* about "analogy" as source of knowledge.

Table 4

*Means of Knowledge in Modern Philosophical Schools*

| School | Founder | Era (In Century) | Perception | Inference | Analogy |
|---|---|---|---|---|---|
| Communism | Karl Marx | AD 19th | ✓ | ✗ | ✗ |
| Pragmatism | Charles S. Pierce | AD 19th | ✓ | ✓ | ✓ |
| Existentialism | Soren Kierkgaard | AD 19th | ✓ | ✗ | ✗ |

Table 4 shows that among modern philosophical schools *Communism, Pragmatism and Existentialism* have considered "perception" as source of knowledge. *Pragmatism* has considered "inference" as source of knowledge. None of the schools mentioned "testimony" as source of knowledge. However, *Pragmatism* mentioned about "analogy" as source of knowledge.

## 5. Conclusion

One the bases of available testimony records of various philosophical schools the emerging knowledge society inferred or reached to a conclusion that the means of knowledge can be broadly categorized into three, i.e., perception, testimony, and inference. The entire knowledge branches identified till the date comes under any of these three categories. In this regard, there is commonness among the schools of thoughts from ancient to modern and eastern to western.

Out of 28 philosophical schools cited above 18 schools have mentioned about perception, 21 schools have mentioned about inference (including analogy, postulation and non-apprehension/revelation) and 9 schools have mentioned about testimony as means of knowledge. 5 Indian schools viz. *Vedanta, Samkya, Nyaya, Yoga*

*and Mimansa* have named all three, i.e., perception, testimony, and inference as means of knowledge. 6 schools viz. *Vaisesika, Carvaka, Buddha, Socratic, Sikhism and Pragmatism* have named perception and inference as means of knowledge. 3 schools viz. *Jewish, Christianity and Islam* have named testimony and inference as means of knowledge. *Jainism* is the only school that named perception and testimony as means of knowledge. 5 schools viz. *Naturalism, Sophistic, Realism, Humanism, Communism and Existentialism* have invoked perception as the only mean of Knowledge. Similarly 7 schools viz. *Eliatic, Metaphysic, Dialectic, Idealism, Persian, Taoism, and Confucius* have invoked inference as the only mean of Knowledge. From this description, it is clear that all atheist schools have considered perception and all theist schools have considered inference as the prime means of knowledge.

## Notes

1. Roy, 2014.
2. Stehr, 1994.
3. Hargreaves, 2003.
4. Kalam, 2002
5. Hooker, 2010.
6. Merton, 1968.

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