Chapter  8
Knowledge Creation

ABSTRACT

The paradox of knowledge creation is the fact that we don’t know yet what knowledge is and how to deal with it from the managerial point of view. The Gordian knot of this reality is represented by the nature and understanding of the dynamics between information and knowledge. In the realm of information science and philosophy the concept of information had been introduced by C. E. Shannon as a mathematical construct in order to solve engineering communication problems. In the realm of epistemology and knowledge management, the central concept of another continuum is knowledge. The continuum is defined as the Data-Information-Knowledge-Wisdom (DIKW) hierarchy. Information in this new continuum is not the same as information from the communication theory, and that generates a lot of confusion among researchers and practitioners. The authors present the main ideas of the DIKW hierarchy and of the centrality of knowledge.

INTRODUCTION

A beautiful metaphor about the linking together information, knowledge, and wisdom has been created by T.S. Eliot (1934) in his “Choruses” from The Rock as remarked by Jashapara (2011, p. 20):

• Where is the life we have lost in living?
• Where is the wisdom we have lost in knowledge?
• Where is the knowledge we have lost in information?

The poem is beautiful since it suggests how easily is to get lost in a lower level of meaning and value for life if we cannot find the force to progress upward from information to knowledge, from knowledge to wisdom, and from living to life through a functional and cognitive process. It is almost the essence of learning how to live your life up to its upper limits. Also, the poem tells us that information and knowledge are not abstract concepts created by philosophers and scientists. They are embodied in the essence of our life. As Lakoff and Johnson (1999, p.7) state:

The fact that abstract thought is mostly metaphorical means that answers to philosophical questions have always been, and always will be, mostly metaphorical. In itself, that is neither good nor bad. It is simply a fact about the capacities of the human mind.

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The Gordian knot of knowledge dynamics, which includes knowledge creation, is the semantic relationship between the concepts of information and knowledge that represent the kernel of the whole framework of knowledge dynamics and knowledge management. If we can understand this paradox of using two different semantic worlds for information and knowledge, then we can deal much better with the process of knowledge creation in organizations. The concept of information has been created by scientists to solve some engineering problems in the communication systems of that time (Shannon, 1948; Shannon & Weaver, 1949). It is framed as a pure mathematical concept without any relevance to meaning. The concept has been taken by philosophers and expanded to semantic information (Bar-Hillel & Carnap, 1953; Floridi, 2005, 2013). But even so, the theory of semantic information has been developed for well-defined systems of language, with a finite number of sentences which cannot cover the infinity of the knowledge continuum.

The concept of knowledge is coming from the ancient times, especially from the Greek philosophers (Russel, 1972, 2009). Socrates considered that man is the measure of all things, hypothesis that led him to the conclusion that “Perception, then, is always something that is, and, as being knowledge, it is infallible” (Russel, 1972, p. 149). Perception is the process through which we see the nature around us and as it is. It generates representations of the physical objects in our mind, which is knowledge. Plato did not believe in our senses since they cannot be reliable. As Russel (1972, pp. 152-153) interpreted Plato’s view, “Only the mind can reach existence, and we cannot reach truth if we cannot know things through the senses alone, since through the senses alone we cannot know that things exist.” As a consequence, knowledge cannot be equated to what we get as a result of perception, but only what we get as a result of judgment. Thus, judgment of perception comes closer to what Plato means by knowledge than pure perception. As I discussed in a previous chapter, these ideas of Plato contributed from the very beginning to the interpretation of knowledge as rational knowledge, for which scientific knowledge was the best example.

In the last wave of prominent Greek philosophers, Aristotle looked at knowledge from a different perspective. His influence in science and in the way of thinking was so great that “after his death it was two thousand years before the world produced any philosopher who could be regarded as approximately his equal” (Russel, 1972, p. 159). In Nicomachen Ethics, Aristotle considers three types of knowledge: episteme, techne, and phronesis. I presented these concepts in the chapter about knowledge dynamics. I would like to add that they should be understood in the perspective of the soul dynamics considered by Aristotle. In his view, there are three capacities in the soul that control action and truth: sense perception, understanding, and desire. Sense perception represents the lowest level of these capacities and it has no power in generating action since it can be seen in animals as well. The other two levels are interconnected as follows (Aristotle, 1999, p. 87):

The principle of an action – the source of motion, not the goal – is decision; the principle of decision is desire and goal-directed reason. That is why decision requires understanding and thought, and also a state of character; for acting well or badly requires both thought and character.

Information is the core concept in the realm of information systems and theory of communication. Information is supported by an energy field, since messages transmitted through the communication channels represent aggregation of electrical signals. Information has been expanded up to semantic information but not to knowledge. Knowledge is the core concept in the realm of knowledge management, having its roots in epistemology which is a specialized branch of philosophy dedicated to cognition. Expanding knowledge to a continuum, researchers constructed a pyramid with the follow-
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