The pursuit of a general theory of knowledge has recently become a hobby for a diversity of scholars working in the area of knowledge and knowledge management systems. I am perhaps an exception because a general theory of knowledge (GTK) was not the main objective of this book. As the various chapters coalesced into a cohesive model of knowledge, the blending of structure and progress evolved into compatible elements of a general theory.

On the road toward a general theory, we encountered several definitions of knowledge and some interesting taxonomies. A working definition of knowledge contends that it is “a fluid mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of the knowers.” This and similar definitions consider knowledge to be both an entity—such as a framework—and a process.
A different approach examines whether knowledge is energy or matter. Is knowledge an ontological entity (does it exist on its own) or is it energy that flows through the labyrinths of the mind? Imagine a single item of knowledge, such as the primary element of the clustering of sensorial inputs—the KANE. Does such a KANE ever cease to exist or, like energy, is it merely transformed into another form by clustering with other KANEs and by assuming the form of a higher-order construct? If knowledge is shared with other individuals and, by convention, entered into records, does it become “matter”?3

Knowledge is the texture of our existence. What we know animates our being and endows us with purpose and with the ability to survive. As such, knowledge is both energy and matter. It is energy in the sense that it resides within the mind of the knower and can undergo a series of transformations that changes its format and increases its complexity while keeping its elemental attributes relatively stable. Knowledge is also matter, when the transformation it undergoes includes sharing with others and making the transfer to a mode of interaction outside the knower. The only way that knowledge can be shared and manipulated by others is if it is an entity separate from the knower.

If a tree falls in the forest, does it matter? Yes, to the tree and to the fauna and flora that lived on it, in it, and off it, but perhaps not to you and me who reside distances away. Conversely, every knowledge matters. In our model of the progress of knowledge, social existence and the welfare of society depend on continuous cumulation of what we know. A theory of knowledge would provide a perspective of what is knowledge.

A tree falling in the forest is an event in the world we inhabit. If I do not have knowledge of it, the event does not matter to me. A tree falling in the forest may trigger a “butterfly effect” by reducing the green lungs of the globe we inhabit, thus increasing the level of carbon dioxide and elevating the threat to all life on the planet—including mine.

But, all of the arguments above mean that we possess knowledge about the phenomenon, we presume, is created by the falling tree. All knowledge is individual, so that although I am told, or taught, that the phenomenon of the environmental threat because of a fallen tree indeed exists, it is still only “shared knowledge,” not my knowledge. I may be adequately convinced to an extent that I will contribute to a social endeavor to deal with the threat, but unless I gain knowledge of the event of the fallen tree by clustering my sensorial inputs, I do not know, hence, it does not matter to me that a tree falls in the forest.
Acting within the social context on shared knowledge but not having knowledge through clustering of one’s own sensorial inputs is the price we pay for being a member of a social entity and for enjoying its benefits of safety, security, psychological aspects of belonging, and the economic benefits that we accrue from such membership. A theory of knowledge must take these issues into account and explain the apparent dichotomy of individual knowledge and that which we accept as the price of admission to membership in society.

A theory of knowledge would have two key components: how knowledge is generated and structured, and how it grows and progresses. Hypothesis 1 of such a theory would state: “Knowledge is generated when there is clustering of sensorial inputs and the human (or artificial) brain interprets this clustering.” Hypothesis 2 would state: “Knowledge progresses and grows through a process of continuous cumulation, whereby added knowledge is joined with the existing knowledge base to provide, when feasible, new architectures and meaning.”

In the human or social organization, knowledge systems are created to capture the knowledge that exists in records and in people’s minds. The key issues with these systems are: (1) which type of knowledge to capture, (2) how to capture, and (3) how to utilize the knowledge captured within the system. These three issues harbor a host of barriers (technical, organizational, behavioral, and economic) to the successful implementation of knowledge management systems.

Knowledge and Ideas

The link between knowledge, consciousness, and ideas has received considerable attention throughout this book. In the emerging theory of knowledge, consciousness is a state of the operation of the human brain when it is engaged in clustering of sensorial inputs and transforming them into knowledge. To know is to exist, therefore to know is to have consciousness. Comatose patients, for example, have a relatively functioning brain but lack the ability to know—to cluster sensorial inputs and to interpret them within their stock of accumulated knowledge. Their senses may continue to monitor their environment to a certain extent, but the inputs, if any, are not clustered.

A similar view can be applied to the link between knowledge and ideas. I have already rejected earlier the notion that ideas (“memes”) can be trans-
mitted and spread like a virus, namely, that these ideas have a life of their own, hence they also have a separate existence. Ideas are knowledge in the form of higher-order constructs. They are a reflection of the clustering of our sensorial inputs and are engendered by such clustering.4

**What We Know, How We Know, and Why It Matters**

What we know is only an outcome of how many inputs our senses have provided and how we manipulated the stock of knowledge we continually accumulate. It matters to us as individuals because knowledge is the lens or prism for every aspect of our existence.

On the other hand, we also exist in social organizations where we interface with others and where we exchange what we know. This provides us with the ability to share and to survive and prosper with the advantages that social organizations offer us as compensation for our frailties in our struggles with our natural environment.

Knowledge, therefore, is not just some tool we pursue as a hobby to enrich our frontiers of imagination and creative desires. Rather, knowledge is the essential ingredient of our existence and of our survival. It is the tapestry of our mind and the thread that ties us together with others in our social condition. We must continue to vigorously increase the effort not only to gain more knowledge, but to understand its making, its make-up, and how we may continuously improve our existence with what we describe as “knowledge.”

A final word to the reader who relentlessly accompanied me through the intellectual tribulations of this book. My perspective on how knowledge is structured and how it progresses has evolved during the writing of this book. The second half of Chapter XVI was drafted in early January 2005 during a flight on United Airlines from Washington, DC, to Chicago, Illinois. Like a good mystery novel, I did not quite know how this entire scheme would come together, but together it came!

I do not offer here definitive answers to the many current questions about knowledge and its role in our complicated lives. My contribution has been in building a model of how knowledge is generated, how it is structured, and how it grows and progresses. To paraphrase Winston Churchill and Stephen
Jay Gould, this may well be the end of the beginning in our effort to theorize and to model human knowledge. The notions of continuous cumulation and I know, therefore everything are keystones of how I view knowledge. They have, I believe, important implications for how we design our knowledge bases and knowledge systems. The time has come to revisit our effort in collecting and structuring knowledge systems, and to make them more effective and to shape them in the way we frame the knowledge in our minds.

Endnotes


4 The reader may be interested in the work of Hans Vaihinger (1852-1933) and his theory of “fictions.” Vaihinger was a Kantian scholar, and his work greatly influenced the American psychologists George Kelly (1905-1967) and Alfred Adler (1870-1937). Vaihinger’s “as if” philosophy provided the background for role playing as a tool in psychotherapy. See Vaihinger, H. (1968). The philosophy of “as if.” New York: Barnes & Noble. Vaihinger said: “The object of the world of ideas as a whole is not the portrayal of reality—this would be an utterly impossible task—but rather to provide us with an instrument for finding our way about more easily in the world” (p. 15). He argued that because we cannot know reality per se, we create “fictional” constructs of the world so we can exist in mental comfort. I arrived at a similar view, although coming from the clustering of knowledge and viewing ideas as the constructs of knowledge.