INTRODUCTION

Defining and understanding knowledge is a rather broad and open-ended pursuit. We can narrow it considerably by stating that we are interested in defining and understanding knowledge as it pertains to knowledge management (KM) rather than tackling the entire realm of epistemology. This article takes the theory of knowledge espoused by Aristotle and views it through the lens of knowledge management.

The writings of Aristotle have proven to be fertile ground for uncovering the foundations of knowledge management. Snowden (2006) points to Aristotle’s three types of rhetorical proof as a basis for incorporating narrative in knowledge management. Buchholz (2006) traces the roots of ontological philosophy forming the basis of current KM ontology efforts back to Aristotle’s work. Butler (2006), in his antifoundational perspective on KM, following Dunne (1993), argues that Aristotle’s phronésis and téchné need to be at the core of knowledge-management efforts, and while they cannot be directly applied to IT applications, they must be among the elements upon which knowledge management is based.

It is instructive to seek theoretical foundations for our treatment of knowledge in organizational settings and knowledge-management systems. By doing so we increase the likelihood that our solutions are complete and that we have considered all relevant forms of knowledge that we may desire to manage. Rather than start with modern differentiators of knowledge such as tacit vs. explicit (Nonaka & Takeuchi, 1995), descriptive vs. procedural (Holsapple & Winston, 1996), local vs. global (Novins & Armstrong, 1997), and declarative vs. procedural (Minsky, 1975), we will take a step back to first principles.

Aristotle (n.d.), in his Nicomachean Ethics, presents five virtues of thought that can be mapped to levels of knowledge.

- **Epistémé**: Factual or scientific knowledge
- **Téchné**: Skills-based technical and action-oriented knowledge
- **Phrónésis**: Experiential self-knowledge or practical wisdom based on experience
- **Noûs**: Intuition
- **Sophía**: Theoretical knowledge of universal truths or first principles

Other learned traditions and cultures give us similar and related elements, such as the Talmudic philosophical tradition (Luzzatto, 1988; Maimonides, 1966) and Eastern religion and philosophy (Gier, 2004).

As a starting point, we are concerned with the processes shown in the first ring of Figure 1.

1. Knowledge that can be acquired in an organizational setting
   a. creation
   b. discovery
   c. gathering
   d. validation
2. Knowledge that can be organized, categorized, and stored
   a. modeling
   b. classification
   c. calibration
   d. integration
3. Knowledge that can be distributed to some point of action
   a. sharing
   b. reuse
   c. maintenance
   d. dissemination

Without the abilities to acquire, represent, store, retrieve, and apply knowledge in a way that positively affects the operation of our organizations, we are not engaging in knowledge management. Conversely, any form of knowledge to which the aforementioned cannot be applied, while of theoretical importance and interest, cannot be managed. True, as argued by Butler (2003, 2006), the knowledge foundations defined by Aristotle might not be transparently converted into IT-based systems, but that should not prevent us from designing our KM systems and processes to support those knowledge foundations to the greatest extent possible.

Consider the view presented in Figure 1 giving a holistic view of knowledge management and its foundations. The central core of philosophies (the middle) must inform our choice of practical knowledge-management processes (the first ring). These processes must be implemented and adapted to address managerial, social, and organizational needs (the second ring). Finally,
the implementation of KM processes to meet our organizational needs must be supported by and implemented through a set of relevant information technologies (the outer ring).

But how do we get from the central core to the first ring? In this article we will examine the definition and understanding of knowledge as a meeting between the Aristotelian classification and the requirements of practical knowledge-management processes.

**BACKGROUND**

The KM-process ring of Figure 1 shows the three bases of acquisition, organization, and distribution (Schwartz, Divitini, & Brasethvik, 2000), and it is but one of many viable characterizations of process-oriented knowledge management. It represents an emphasis on praxis, taking as a starting point the question, What do we need to do with knowledge in order to make it viable for an organization to use, reuse, and manage it as a tangible resource, and apply it toward specific actions?

By taking this perspective, we avoid to a certain extent the knowledge-information-data (KID) debate regarding the granularity of knowledge. We argue that the distinction between data, information, and knowledge can be conveniently ignored: not treated as irrelevant for a philosophical debate, mind-body discussion, or a metalevel, object-level analysis, but not essential to the fundamental mission of knowledge management.

Arguing that information technologies process data and not information or knowledge, Galliers and Newell (2003) seek to refocus the KM-IT effort on the better management of data. They suggest that since an IT system cannot deal with the fundamental elements of truth and knowledge, it can be counterproductive to create IT-centric knowledge-management initiatives. Holsapple (2002) provides an excellent introduction to different aspects of knowledge and its attributes, including perspectives based on representational issues, knowledge states, production, and the KID debate as well.

Knowledge management, however, does not need to get bogged down in the KID debate. What it does need is to become knowledge centric. Becoming knowledge centric does not necessitate a resolution to the KID debate.