Welcome to the second issue, second volume of the International Journal of Knowledge Management. In this issue we begin to tackle the issues of culture and context. Two invited articles, from Hart and Warne and from Usoro and Kuofie, are presented that explore frameworks for studying these issues. These papers present frameworks based on work in Australia and in Africa. The theme of culture is continued with our first research paper from Okunoye and Bertaux, who look at cultural impacts on knowledge management in India, The Gambia, and Nigeria. The last two research papers do not address culture but do focus on issues related to knowledge management systems. Stenmark and Lindgren explore knowledge maintenance issues by looking at systems in Sweden, and Chua and Lam look at issues involved in implementing knowledge management in a United States Army intelligence organization. The Chua and Lam paper is a teaching case study, and the authors are making available the teaching notes to readers who request them.

Why consider culture and context? A previous editorial summarized the definition of knowledge management as the practice of selectively applying knowledge from previous experiences of decision-making to current and future decision making activities with the express purpose of improving the organization’s effectiveness. This was a consensus definition from the editorial review board that tells us what we are trying to do with knowledge management. However, knowledge management is being applied in multinational, multicultural organizations and we are seeing issues in effectively implementing knowledge management in global and/or multicultural environments. Chan and Chau (2005) discuss a failure of knowledge management that was in part caused by organizational culture differences between the home office (Hong Kong) and the main work location (Shanghai). Jennex (2006) discusses Y2K, knowledge sharing projects that were not as successful as expected due to cultural and context issues. These projects involved organizations that performed the same functions just in different nations; however, problems caused by culture and context were not expected. Other research in review with the International Journal of Knowledge Management explores issues of culture with respect to social capital and implementing knowledge management. None of these are far-reaching studies that we can generalize issues from, but they do provide anecdotal and case study support that culture and context are issues we need to address.

First we need to define what we mean by the terms culture and context. The United Nations Educational, Scientific and Cultural Organization, UNESCO, states that culture is the “set of distinctive spiritual, material, intellectual and emotional features of society or a social group and that it encompasses, in addition to art and litera-
ture, lifestyles, ways of living together, value systems, traditions and beliefs” (UNESCO, 2002). The American Heritage Dictionary (2000) defines context as the part of a text or statement that surrounds a particular word or passage and determines its meaning and/or the circumstances in which an event occurs; a setting. Culture forms the basis for how we process and use knowledge by providing belief frameworks for understanding and using the knowledge; context provides the framing for the knowledge explaining how it is created and meant to be used. Both are critical to the transfer and reuse of knowledge, where we use the Nonaka and Takeuchi (1995) and Polyni (1967) view of knowledge as having tacit and explicit dimensions. Tacit knowledge is that which is understood within a knower’s mind and which cannot be directly expressed by data or knowledge representations. It is commonly referred to as unstructured knowledge. Explicit knowledge is that knowledge which can be directly expressed by knowledge representations. This is known as structured knowledge. We normally expect explicit knowledge to be easily transferred while we expect issues with transferring tacit knowledge. However, we are finding that transfer of either dimension of knowledge in a multicultural environment is not easy.

Next we need to discuss how knowledge is transferred. Knowledge transfer occurs when people, as members of the same and/or different organizations, exchange tacit and explicit knowledge. Nonaka and Takeuchi (1995) propose four modes (processes) for knowledge creation and transfer:

- **Socialization** — the process of sharing experiences, thereby creating tacit knowledge such as mental models and technical skills. Tacit knowledge can be obtained without the use of language, that is, through observation, imitation, and practice;
- **Externalization** — the process of articulating tacit knowledge in the form of explicit concepts such as metaphors, analogies, hypotheses, and models;
- **Combination** — the process of systemizing concepts into a knowledge system by combining different bodies of explicit knowledge. Explicit knowledge is transferred through media such as documents, meetings, e-mail, and phone conversations. Categorizing this knowledge can lead to the generation of new knowledge;
- **Internalization** — the process of converting explicit knowledge to tacit knowledge and is closely related to learning by doing.

These four modes, or processes, show that the transfer of knowledge is dependent upon the transfer of a common understanding from the knower to the user of the knowledge. Common understanding consists of the context (the story behind the knowledge, the conditions and situations which make the knowledge understandable) and the experience (those activities that produce mental models of how the knowledge should be used) expressed in a culturally understood framework. The following paragraphs discuss some of the issues associated with culture and context and how they impact the Nonaka and Takeuchi (1995) SECI knowledge transfer model.

Why consider culture? Hofstede refines the definition of culture as:

*Culture consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditions (i.e. historically derived and selected) ideas and especially their attached values.* (1980, p. 25)

His work focuses on identifying cultural differences between nations and illustrates that value systems are not the same the world over. The key to the impact of culture on knowledge transfer is in his expanded definition as culture’s impact on artifacts and values impacts how different social groups will externalize metaphors, analogies, hypotheses, and models; how groups will systemize concepts; how groups internalize concepts; and how groups understand experiences. Hofstede (1980, 2001) uses five dimensions to assess basic cultural values:

- **Power Distance Index** — determines expectations regarding equity among group members;
• **Uncertainty Avoidance Index** — determines typical reactions to situations considered different and/or dangerous;

• **Individualism Index** — determines the strength of the relationships between the individual and the society group;

• **Masculinity Index** — determines expectations regarding gender roles;

• **Long-term Orientation Index** — determines the basic orientation of the society group to time.

Other authors look at culture and values and provide alternative frameworks for evaluating them. Schwartz (1992) identified 10 distinct types of values: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. How important the individual rates each of these values determines the individual’s system of value priorities. The Schwartz Value Survey has been developed to help measure this. Additionally, Trompenaar (2004) identified value dimensions similar to Hofstede but classifies them as: universalism, individualism, view of time, affectivity, how directed, and status.

Differences in culture, and Hofstede (1980, 2001) shows that there are significant differences between nations, can lead to differences between national groups within the same organization, which can cause those groups to either understand knowledge differently or have significant barriers to participating in the sharing of knowledge. We must understand that culture is a unique component that is so deeply embedded into people’s lives that our ignorance of it usually leads to failures. Knowledge management systems (KMS) as well as other systems created to improve an organization’s performance should use all possible information about culture to escape mistakes due to lack of cultural awareness and understanding. Probably no theory ever will capture all or even full knowledge about a specific culture, but there are enough theories (as discussed earlier) to establish a process and methodology for including cultural parameters in the design of KM initiatives and the system analysis and design activities.

Why consider context? Davenport and Prusak (1998, p. 5) view knowledge as an evolving mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. They found that in organizations, knowledge often becomes embedded in documents or repositories and in organizational routines, processes, practices, and norms. They add that for knowledge to have value, it must include the elements of human context, experience, and interpretation. Nonaka (1994) expands this view by stating that knowledge is about meaning in the sense that it is context-specific. This implies that users of knowledge must understand and have experience with the context (surrounding conditions and influences) in which the knowledge is generated and used for it to be meaningful. This suggests that for a knowledge repository to be useful, it must also store the context in which the knowledge was generated. The suggestion that knowledge is context specific argues against the idea that knowledge can be applied universally.

Context is the collection of relevant conditions and surrounding influences that make a situation unique and comprehensible to the users of the knowledge (Degler & Battle, 2000). Context can be stored with knowledge and/or can be possessed by knowledge users. When a system’s knowledge users are known, the knowledge that is captured is captured to support specific activities. KMS users are readily known when the KMS is built to support a specific team, project, or process, and the users are those involved with that team, project, and/or process. These users tend to possess a high degree of shared context of understanding where context of understanding incorporates context and experience. Experience is what knowledge users use to generate mental models of how to use or apply the knowledge (Degler & Battle, 2000). Experience comes from the individual’s own experience with the knowledge domain, other’s shared experience with the knowledge domain, and/or a collective experience with the knowledge domain (Degler & Battle, 2000). Combined, this means that knowledge users in teams, projects, or even processes understand the organizational culture, the structure of organizational documents, organizational terminology and jargon, and how the organization works and are able to use posted knowledge, even if it does not include context, as they implicitly understand the context in which the knowledge
was created and have experience using this knowledge. On the other hand, when KMS users are not known, it is not possible to assume these users possess a common context of understanding or experience associated with the generation of the knowledge. This means the KMS will have to capture this context and experience for users to be able to utilize the captured knowledge effectively.

To summarize, culture and context are issues that affect how we represent knowledge, what we store for knowledge, and how we transfer and apply knowledge. It isn’t realistic to expect all users within the same multinational organization (and even less realistic if the users are in different organizations) to possess the same cultural and context attributes, so KM initiatives need to recognize these limitations and allow the differences. How we do this is something we need to address. It should also be expected that the initiators/designers/developers of a KMS will not belong to the same culture of the expected users nor necessarily possess the context to understand how the expected users will transfer and use knowledge. Additionally, we need to realize that knowledge contributors/knowledge sources may be of a different culture than the knowledge users and that the knowledge users may not possess the same context knowledge as the knowledge contributors/sources. Not only traditions but whole schemes of thinking as well as understanding and interpreting the order/classification of data/events/knowledge might be different. KMS are highly logical systems that only work properly when the logic of its user is captured properly. Therefore, we stress the importance of investigating the culture and understanding context before we can expect to design a successful KMS. Fortunately, there are frameworks we can use to assess culture and context (as discussed previously), and we need research that applies these frameworks to KM situations. This issue of the International Journal of Knowledge Management hopefully starts this area of KM research, and we hope to present more research dealing with these issues in the near future.

REFERENCES
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