SUPPORTING AND EMPOWERING KNOWLEDGE WORKERS AND COMMUNITIES OF PRACTICE

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ABSTRACT

Much has been written about the potential for knowledge workers and communities of practice (CoPs). The potential for innovation, creativity, and knowledge sharing is intriguing and shows promise. The appropriate work environment and organizational culture are necessary to support knowledge workers and the promise of CoPs; this may be a change for some from the existing work environment and expectations, which are structured under more traditional management approaches. A review of organizational culture and the roles of technology and social media describe some of the challenges organizations must address. The alignment with knowledge management efforts and CoPs is discussed in terms of tacit and explicit knowledge. Social networks contribute to learning, creativity, and innovation. CoPs should identify technology needed to support work activities, which then can be enabled by management. Reviewing practices relative to employee empowerment and participation are necessary as well as acknowledgment that knowledge workers and their CoPs, not management, are responsible for sharing knowledge and improving their performance in the organization. As CoPs and their members can become significant capital assets, competitive advantage may be at risk without necessary support.

Keywords: communities of practice (CoPs), knowledge management (KM), tacit knowledge, explicit knowledge, knowledge sharing

INTRODUCTION

Organizations must satisfy both shareholders or owners and the human capital that gives the organization power – knowledge workers (Drucker, 1999). As Drucker noted, competitive advantage will determine organizational survival; he proposed the need to attract and keep knowledge workers as a fundamental requirement. This means organizations must actively pursue human capital to better serve stakeholders. How can organizations create the environment necessary to stimulate learning; support knowledge creation and innovation; and foster job satisfaction, continuous improvement, and higher performance to benefit all stakeholders? Two areas have emerged as possibilities: knowledge management (KM) and, in the last decade, communities of practice (CoPs). Archibald and McDermott (2008, p.16), referred to CoPs as the

"darling of KM…" because CoPs are an effective way to share the deep, tacit knowledge necessary to instill "know-how". CoPs are identified as "…essential building blocks of the knowledge economy" (Shenkel & Teigland, 2008, p. 106). CoPs provide a practical application for KM (Iversen & McPhee, 2002).

Some of the benefits related to CoP activities include the reduction of rework and reinvention, an increase in employee satisfaction, the development of new capabilities, and a decrease in learning curves. In addition, individual members also perceived a greater and positive impact based on their individual performance, even more so than the improvements in organizational performance (Archibald & McDermott, 2008). Organizations have pursued the concept of KM with optimism, seeking ways to document and secure existing knowledge, only to discover that documented or codified knowledge is only part of the solution. Tacit knowledge, the information that is typically difficult to document, is identified as perhaps the most important knowledge asset. Sometimes referred to as implicit knowledge, tacit knowledge represents expertise or know-how, which has been gained through individual experience (Ipe, 2003; Mooradian, 2005; Nonaka, 2008; Nonaka & Takeuchi, 1995). Because it is gained through individual or personal cognitive and experiential processes, tacit knowledge is perceived as subjective knowledge (Gupta, Iyer, & Aronson, 2000). Regardless of the name assigned to tacit knowledge, the utilization of and the passing along of this type of knowledge is essential to reducing the learning curves in organizations and CoPs.

Drucker (1999) acknowledged that work would require restructuring so KM, including tacit knowledge, is included as part of the system. As an example, Drucker (1999) cited U.S. Caterpillar Company [Caterpillar, Inc.], which determined that it was not getting paid for its machinery, but instead it was paid for what the machinery does for a customer – in other words, a service orientation intended to produce high-quality outcomes. This provides the basis for CoPs and KM, as the development of a system to create service with quality outcomes. Much of the research in KM and related areas such as CoPs is not often found in management literature, yet management in terms of leadership and processes is responsible for continuous improvement and leveraging knowledge for organizational advantage. This paper is focused on management aspects and reviews some components of a system necessary for consideration by organizations seeking to establish or improve KM in general and to support CoPs. KM and CoPs will be briefly discussed, followed by a theoretical perspective. Organizational elements such as culture and information technology (IT) processes are noted relative to the roles these may play in support of CoPs and KM. This discussion is followed by lessons learned, recommendations, and conclusion.

KNOWLEDGE MANAGEMENT

It is an almost impossible task to store, reclaim, and disseminate possessions that do not exist in an organized or codified form (Kreiner, 2002). This is the theory behind traditional KM programs that concentrated on acquiring, codifying, and distributing explicit knowledge and on translating tacit knowledge into explicit knowledge to make it manageable (Kreiner, 2002). As expounded by Proctor (2013, p. 167), KM focuses on three elements: the individuals who generate and utilize knowledge; the different processes and technologies that are used to develop,

sustain, and access knowledge; and the artifacts, such as data files, books, and reports, that are used to store knowledge.

Iversen and McPhee (2002) explained two basic approaches to today's KM: the codifying and storing information and the interactional, people-focused approach that connects those with knowledge. Bresnan, Edelman, Newell, Scarborough, and Swan (2003) concurred and discussed these models as the cognitive model and the community model. The cognitive model focuses on codifying knowledge and is concerned with retaining the knowledge and sharing it within the organization through the application of information technology (Bresnan et al., 2003). This is arguably the most common approach to KM and is supported by increasingly sophisticated information-based tools and organizational intranets. However, the heavy reliance on technology is only a partial aspect of knowledge sharing. The cognitive model emphasizes explicit knowledge; whereas, the focus of the community model is on tacit knowledge, which is more difficult to capture or articulate (Ipe, 2003; Mooradian, 2005; Nonaka, 2008; Nonaka & Takeuchi, 1995). Explicit knowledge, which is relatively easy to organize, store, distribute, and communicate (Gupta et al., 2000; Ipe, 2003) through the cognitive model, has been described by Gupta et al. (2000) as knowledge that is more objective, rational, and technical than tacit knowledge, which is more subjective by its nature. CoPs can serve as a people-focused community model to address the capturing and dissemination of tacit knowledge. Søndergaard, Kerr, and Clegg (2007) concluded that technical and social factors are both needed for successful knowledge sharing. This conclusion supports the dual approaches to KM that is championed by Iversen and McPhee (2002) and Bresnan et al. (2003).

Swart and Harvey (2011) suggested that knowledge must be managed across natural boundaries, which are defined by job function, organizations, and positions. Effective communication must link the knowledge together regardless of the boundaries. The development of collective knowledge assets is further enabled when individual and shared knowledge (community knowledge) are treated as assets and the interrelationships are allowed to develop and flourish.
However, if left unused, knowledge may dissipate because teams in a project context will disband and such knowledge may be lost when the project has been completed. This also can occur when reorganization occurs within groups, divisions, and corporations. Different methods of organizing and generating knowledge, as represented by processes and supply chains, also help determine boundaries. Even though tacit knowledge is more difficult to document than explicit knowledge, Swart and Harvey (2011) suggested that tacit knowledge is deeper and more effectively integrated and quickly accessible, even more so than explicit knowledge. For example, one of the challenges in project management literature is that the context often neglects social and human dimensions, which contradicts the need to further develop tacit knowledge and that intrinsic value is a key motivator related to human and social dimensions.

Swart and Harvey (2011) also suggested that knowledge is developed through interaction and usage without constraints. They referred to this as a "contact sport," which is supported by a strong foundation of personal initiative, trust, training, and information. Organizations must continue to develop knowledge assets, but must identify which assets exist at the collective level, at the individual level, and then proceed with employee development based on this information. Knowledge is most frequently developed where current ideas can be applied in a new environment, but without usage, the knowledge may decay. Also, closed systems or hard

boundaries in organizations limit opportunities for knowledge generation. Further, sharing knowledge is a social dilemma because barriers are created by unwillingness to share (Swart & Harvey, 2011). Predictions of benevolent individuals who, without rewards, will voluntarily provide intrinsic knowledge are simply not realistic. Other issues can include conflicts of interest in the lack of incentive. A transactional cost could be involved for those who are self-promoting and use opportunistic behavior, thus, sharing information becomes unlikely.

It should be noted that Chu, Krishnakumar, and Khosla (2014) proposed that some of the barriers listed above may be overcome or, at least, mitigated if organizations incorporated into their selection process the five-factor model for personality traits to identify candidates who possess those personality types that would be more apt to support knowledge sharing and who would work well in a CoP environment. Through literature review, Chu et al. (2014) determined the personality traits more suitable for CoPs with various business strategies. For example, if the primary strategy of an organization or its CoPs is innovation, then their selection process should focus on knowledge workers with the Openness to Experience personality trait. Knowledge workers with this personality trait would work well in CoPs that involved the need to facilitate interfaces, maintain human networks, and support a knowledge entity (Chu et al., 2014). Regardless of the selection process that an organization and/or its CoPs elect to use, it is critical to remember that the motivation of an individual appears to be crucial in determining whether or not the individual will facilitate or inhibit knowledge sharing. Søndergaard et al. (2007) argued that individuals with their "motivations and incentives to share and seek out new knowledge are important factors to look for in terms of knowledge sharing" (p. 430).

COMMUNITIES OF PRACTICE

Wenger, McDermott, and Snyder (2002, p.4) defined a CoP as a group of people who "share a concern, set of problems or passion about a topic, who deepen their knowledge and expertise in this area by interacting on an ongoing basis." Wenger (1998) provided three characteristics of CoPs "…mutual engagement, negotiation of a joint enterprise and a shared repertoire" (p. 261). As Wenger (1998) explained, negotiation of an enterprise or project provides a sense of purpose and coherence to the CoP; the interaction of members defines the significance and shapes practices in reaction to a larger context. The shared repertoire may include stories, theories, forms, and technical terms or jargon that are used and understood by members and provide "proof" of membership. All of these promote meaning and shared understanding in the CoP. For example, members in a group collectively know that the codified instructions for a work application are insufficient. Using their experience, these workers supplement the deficient directions by executing the additional steps needed to ensure a positive outcome. In turn, this group of workers teaches others the additional steps they need to take to achieve a positive result. In essence, the members of this CoP, using their combined tacit knowledge, modified explicit knowledge to correct incomplete instructions. These members, by combining their tacit knowledge and then sharing this combined tacit knowledge with others, reduced the need to reinvent a solution to the problematic written instructions and shortened the learning curves of others who were tasked with performing the same work application. Had these members elected not to share their corrective steps with others through training, then their tacit knowledge would be lost to the organization. It is through mutual engagement that the value of a CoP is realized,

analyzing the complexities of organizational knowledge, which is grounded in activity and common interests, far beyond simple interaction (Iversen & McPhee, 2002).

However, Østerlund and Carlile (2005) suggested the need for a more skeptical approach when evaluating knowledge sharing. They concluded that some knowledge-sharing practices tend to be viewed as properties of community and not embedded in fluid social relations (Østerlund & Carlile, 2005, p. 105). They cautioned that this assumption by organizations and individuals often leads to over-confident portrayals of communities as being the answer to any knowledge-sharing difficulties plaguing the organization (Østerlund & Carlile, 2005).

Wenger et al. (2002) identified three key structural elements – domain, community, and practice – in a CoP. While weak leadership structure can be an issue, legitimate leadership develops over time, as capability is demonstrated by the individual and recognized by the community. Legitimate leadership requires trust and commitment as well as community acceptance. The ability of leaders to influence others within their group is an important component in knowledge sharing (Søndergaard et al., 2007). In addition, Crosby and Bryson (2010) argued that it is important for leaders to be able to work across boundaries and bring diverse groups together for the common good. In this respect, the traditional management structure and the role of management still exists for CoPs. However, because knowledge workers are responsible for the development and sharing of knowledge, traditional management must become a support role and be available as needed by the CoP (Chua, 2006). This can include human, financial, and technology resources. CoPs are responsible for their own learning and self-management. Management must make certain that there is value alignment among individuals, the organization, and the CoP, as individuals are interested in work that they can impact. This supports Kreiner's (2002) posit that the management of knowledge places more importance on leadership, because leaders must encourage and support others in the creation of knowledge locally. Leadership can be found among management and among those naturally occurring leaders within CoPs.

Implementing CoPs must be considered as a significant effort that involves all aspects of the organization and includes a willingness to change and the need to manage expectations of members. Organization leaders must commit wholeheartedly to this concept and demonstrate this commitment daily in order for the implementation of CoPs to be successful. This includes being willing to serve as role models, demonstrating by action how knowledge sharing should occur within the organization (Søndergaard et al., 2007). As part of role modeling knowledge sharing, organization leaders should interpret business strategies, offer guidance to their employees, and, if needed, provide collaboration and coordination (Søndergaard et al., 2007). Sometimes this commitment can be demonstrated by top managers' willingness to step aside and allow CoPs to spring up naturally within the organization.

KM & CoPs

There are different approaches to KM, and CoPs have been recognized for the significant potential in numerous areas such as socializing new employees and engaging them in the organization and the culture, generating new knowledge, motivating individuals, spanning

boundaries with other organizations, providing a source of innovation where known practices are applied in new situations and new environments, which can lead to new practices.

Bresnan et al. (2003) noted how tacit knowledge, by its nature, is difficult to capture and retain because it requires shared mental models and shared meaning. Social norms and settings of groups may not be supportive, such as in project management, which is more task-focused. They further suggested that knowledge diffusion can best be supported by mechanisms that support knowledge sharing and learning processes. Ipe (2003, p. 341) defined knowledge sharing as, "the act of making knowledge available to others within the organization" and, as such, it provides organizations a method by which to capture tacit knowledge ongoing. Knowledge sharing reinforces the opinion that humans are the source of tacit knowledge and that technology, as a mechanism that can assist disseminating this tacit knowledge, is secondary to the human element (Gupta et al., 2000). Identifying opportunities where experiences and tacit knowledge can be applied may be the best way to disseminate information in a project context, as common understandings and shared meanings typically flow through social networks and are supported with an effective culture.

In addition to a project context, there are a number of work designs that promote social networks by establishing interdependencies among jobs, which necessitate more interactions and greater information sharing among workers and work groups (Cabrera & Cabrera, 2005). For example, organizations can avoid the use of structured jobs, which include well-defined tasks, and focus on shaping work around a series of assignments that would compel workers to interact across groups, departments, and functions on each assignment. Working closely with others in different groups helps create cross-functional linkages that could involve multiple business units or even multiple locations (Cabrera &Cabrera, 2005). Of course, work can be designed around teams, which facilitates knowledge sharing by intensifying the need for collaboration and coordination among employees (Cabrera & Cabrera, 2005). In addition to encouraging knowledge sharing, it is hopeful that, through careful work design, organizations can foster CoPs, if they do not already exist. The careful development of work designs by management for the purpose of facilitating knowledge creation among workers is an example of the importance of leadership in the management of knowledge (Kreiner, 2002).

THEORY

Bresnan et al. (2003) explained social construction as the construction of meaning where individuals collaborate to share ideas often by working together and discussing the work and processes within the CoP. Hansson (2002) discussed the importance of social processes and how a social-constructivist dialogue and the approach to learning can transform people and create dynamic social processes. Hansson (2002) also emphasized the importance in social construction relative to leadership and professional development. Developing dialogue and necessary relationships is a key function of CoPs but difficult for some organizations to achieve because groups can be divided within the organizations due to geography and different job functions, especially in matrix organizations and project environments. In addition, if organizations use a project environment, project knowledge is task-focused by its nature and not focused on community and social structure that support shared meaning.

However, social construction does not include technology. Iversen and McPhee (2002) argued that a working model for knowledge sharing must also include databases and information technology (IT). Søndergaard et al.'s (2007) empirical research supported this belief that both technology and social construction are needed for successful knowledge sharing. Iversen and McPhee (2002) offered a theoretical construct intended to explain the interactive roles of information systems and people, providing a model to explain how KM is constructed socially, transferred, and managed within systems. Iversen and McPhee (2002) also emphasized the need to cultivate CoPs. The very nature of a CoP denies management control; instead, CoPs engage participants, who negotiate and share. Wenger et al. (2002) noted that organizations may also create the environment necessary for successful CoPs, including valuing learning, making time and resources available, encouraging participation, and removing potential barriers. This would include integrating these communities into the organization, providing a voice in decisions, and providing legitimate influence in operating units. Wenger et al. (2002) also identified the need for CoPs to develop processes and manage the value they create. CoP theory emphasizes the need to translate and story tell as part of learning, articulate ideas and directions, and then collaborate. Knowledge managers, the leaders of their respective communities, must "… achieve dual loyalty, to the community and to their organization" (Iversen & McPhee, 2002, p. 264).

ORGANIZATIONAL CULTURE

CoPs were originally recognized as self-evolving groups (Chu et al., 2014). However, many organizations and researchers recognize the potential strategic importance of CoPs as a means to overcome or lessen those problems that are inherent to organizations with a slow-moving traditional hierarchy when faced with a fast-moving knowledge economy (Chu et al., 2014, p. 64). With this recognition comes the understanding that organizations need to identify and create an environment conducive to the development of CoPs as strategic partners. Even though research into the benefits of aligning CoPs' strategies with their organization's strategies is limited, Chu et al. (2014) argued that existing studies support that strategic "alignment should be bottom up, i.e. the knowledge work should be aligned to organization objectives" (p. 64).

Appropriate environments to support the development of CoPs focus on employee empowerment. This is a significant change from past centuries of power and hierarchy. Wenger et al. (2002) noted the need for conducive organizational practices, culture, and values to allow CoPs to develop. Without the supportive environment and employee empowerment, there is little reason in cultivating CoPs. Managing CoPs requires an entirely different approach, as management has little influence other than to acknowledge and support the existence of the CoPs and provide resources. Instead, management must remove barriers to performance, including communication barriers, to facilitate and enable the emergence of knowledge and facilitate behavior.

According to Søndergaard et al. (2007), one such barrier to knowledge sharing is the perceived lack of shared organizational goals or a shared strategic vision. When workers perceive conflicting priorities within the organization, they may find it difficult to or be reluctant to work across organizational boundaries to share knowledge with individuals who do not appear to have the same organization goals (Søndergaard et al., 2007). Therefore, it is imperative for leaders throughout the organization to communicate the strategic vision and let workers know how

important achieving this vision is to the overall success of the organization. Sharing a bond based on common values and beliefs may encourage individuals to share different types of constructive knowledge (Proctor, 2013).

REWARDS AND MOTIVATION

Swart and Harvey (2011) noted the attention that must be given to reward systems and motivators in organizations relative to knowledge workers and CoPs. Intrinsic motivation can be undermined by extrinsic rewards and could even encourage knowledge hoarding. An individual may perceive a reduction in locus of control that would then be matched by a reduction in altruistic behavior. Organizations should avoid giving incentives for specific performance or behaviors because this would create a transactional relationship instead of a relational focus; however, extrinsic motivators such as recognition and reward for those who provide feedback may confirm personal competency and potentially support self-esteem (Swart & Harvey, 2011). This is supported by Ulrich and Brockbank (2005), who argued that individuals do the things for which they are rewarded. Not sharing individual knowledge is a social dilemma. Individuals may hoard information because they may perceive any improvement in their own opportunities or their personal value may be diminished by sharing; this is further reinforced when those who do not contribute are not penalized and the few who do contribute are not rewarded. Developing a sharing culture can be dependent on initial socialization into the organization and a clear understanding of cultural expectations that require knowledge sharing. In addition, work design, which supports both individual and cultural norms and the perception of fair and manageable incentives and practices, will also support knowledge sharing (Swart & Harvey, 2011). Knowledge sharing is critical to the overall growth, dissemination, and management of knowledge throughout an organization (Ipe, 2003). Organizations are dependent upon individuals who create knowledge to share it with others. Should individuals elect not to share their individual knowledge with others in the organization, then their hoarded knowledge will have minimal or no influence on the efficacy of the organization (Ipe, 2003; Nonaka & Takeuchi, 1995). Therefore, it is critical that leaders clearly communicate the need to share knowledge and make certain that the organization's rewards and recognitions are in alignment with this need. If employees perceive that sharing knowledge, either directly or indirectly, provides fewer opportunities for success within their work group and the organization as a whole, they will not be motivated to impart knowledge to others (Søndergaard et al., 2007).

Good interpersonal relationships, trust, and commitment are essential in CoPs. Brown and Duguid (1991) addressed both the organizational environment that encourages trust and building working relationships, and individuals who are willing to trust others and share what they learn in a collaborative environment. Huysman and de Wit (2004) identified another problem relative to information sharing with knowledge workers: There may be difficulty in expressing how the work is meaningful, because meaning is developed at an individual level. Time and job pressures may also prevent knowledge workers from sharing information unless this is an inherent practice in the work processes within that organization. This further reinforces the need to embed practices for knowledge sharing into daily jobs and not treat knowledge sharing as an "add on". It is possible that communication patterns and relationships already exist for sharing information but have gone unnoticed. For example, Bright (2010) saw older employees as owning attachments and other strong social bonds; these attachments and relationships may be more

meaningful to employees than potential advancement opportunities, and often these employees may not want "opportunities" that remove them from their networks and work relationships.

THE ROLE OF TECHNOLOGY

Huysman and de Wit (2004) identified basic connections found through e-mail, the telephone, video conferencing, and groupware, which provide access to individuals to span geographic and time differences. However, all of these methods must be established within existing networks and cannot be treated as "add-ons" or superimposed in organizations. Too often the old adage "you will get used to it" becomes a directive from management or the information technology (IT) department when a new tool or system is implemented. This directive may breed frustration and resentment within workgroups who already have established processes and sharing networks within their workgroups and, in the worst case, could be a contributing factor in potential failure. People will not use sophisticated technology tools if they see no reason to share (Huysman & de Wit, 2004). This reinforces the need to identify the existing natural communication networks and review the need to establish electronic networks to be sure they support the natural networks that already exist. Organizations also must understand knowledge sharing is not an individual activity; it is a collective activity that cannot rely solely on tools (Huysman & de Wit, 2004). Therefore, not only should management create a favorable environment for established processes and sharing networks within workgroups, but also they should ensure that everyone in the organization is aware of all of the technology that is available for employee use and how to utilize it. Because organizations are dependent upon individuals to create knowledge, organizations need to find appropriate methods to facilitate how the information can be shared with others.

For example, organizations historically have tended to place the training and the technical functions of KM in different departments – training and development and IT. These groups often have not aligned their objectives with each other or with the organization's strategic goals (Davenport, Prusak, & Strong, 2008). To ensure effective KM and knowledge sharing through technology, the training and development group and the IT group must be aligned with each other and with the organization's strategic goals for KM and knowledge sharing. This means that the two groups must collaborate with each other and with departments throughout the organization to ensure that employees receive continuing training and development on the various platforms, such as database software, corporate intranets, and Web portals (Davenport et al., 2008). As part of its support role to CoPs and knowledge sharing, management should be committed not only to provide user-friendly technology for employees' use, but also to allocate the time required for employee training and training transfer into the work environment. Davenport et al. (2008) contended that this type of organizational support will encourage employees to share their knowledge.

SOCIAL MEDIA

More recently Web 3.0, even though it is not yet available and there are no estimations when it might be, has been presented as a significant evolution to enable better collaboration and communication, support interactivity and provide an integration of mobile devices, 3-D video, and ways of integrating all of the current technologies. Although this would be an improvement

over Web 2.0 (Panahi, Watson, & Partridge, 2013), any assumptions are preliminary as the technology is not yet available. In addition, although significant theoretical arguments support the assumption that social media can facilitate knowledge sharing, this has yet to be proven by empirical research. One of the issues with introducing social media into the workplace is that there is an implicit assumption that everyone will use it; this may be an overreach. Older employees may or may not find value in social media even if younger employees do, and such an introduction implicitly assumes that time will be given to maintain social media in the workplace, whether it is for personal use or work use. Employees who already perceive themselves to be overly committed may be unlikely to take on yet another tool for which they see it has little value relative to their jobs, especially if they are not familiar with it already. Some employees may see adding yet another blog, instant messaging, or other social media tools only as additional demands on their time, which may be limited at best, and potentially overwhelming. Borstnar (2012) saw the social media environment as lacking structure, rules, and generally chaotic. There is little or no research that indicates how social media in the workplace can be used to support organizational performance with or without trust, structure, and rules. Social media is also supported, primarily by IT departments, as a positive addition to the workplace on the basis that it will allow employees to stay more connected (Leng, Lee, & Lim, 2013). Regardless of Proctor's (2013) supposition that personal networking and collaboration are important to the development of ideas, has anyone asked the employees if they wish to be more connected than they already are and to develop deeper relationships with their peers? Social relationships, as supported by such tools as Facebook and Twitter, are arguably different than working relationships. Those individuals who follow each other on Facebook and Twitter usually share common interests, values, and/or beliefs. It is questionable if employees will voluntarily develop more than working relationships with peers unless they choose to do so. At best, researchers can only hypothesize and speculate (i.e., Leng et al., 2013; Levy, 2013) on the value of social media in the workplace. Although the establishment of an IT network and the implementation of social media might encourage knowledge sharing, this remains to be determined empirically. Organizations should not rely on the promise of IT alone, as employees may not readily adopt any tool unless they see added value for themselves and their work. Further, Billington and Billington (2012) explained how management cannot seek to control social media in the conventional sense that traditional tools such as e-mail and Internet access may be controlled, as this may inhibit KM efforts. Once social media is used in the workplace, managers may likely have to deal with employees using work time to update personal accounts such as in Facebook and YouTube. It may be difficult to separate work-related social media time from personal social media activities. There is no one best answer and the appropriate response may likely be found in multiple approaches implemented in coordination. However, the management of knowledge is critical to competitiveness and improvement and should be part of an everyday routine.

A limited survey conducted by the Society for Human Resource Management (SHRM) of its membership provided an indication of how some organizations have approached the use of social media in the workplace. The survey revealed that 79% of those organizations responding used social media for sharing information, 49% for group discussions, 36% for collaboration, and 20% for problem solving (SHRM, 2012). In regard to the predicated future for social media in their organizations, 55% of respondents expected their organizations to increase social media usage (SHRM, 2012). However, social media in the workplace is not without problems and it is

not completely clear how social media provides added value for the organization in this survey. Of those responding to the SHRM survey, 40% said their organizations had a formal social media policy. Of those with formal social media policies, 33% of the respondents said their organization had taken disciplinary action within the previous 12 months against employees who had violated those policies (SHRM, 2012).

Another potential problem associated with social media such as Facebook is security. Owyang (as cited by Weston, 2009) argued that, even though using Facebook to communicate work-related information may not cost a company money, its use by employees could be a security risk for the company. Instead, he advocated the use of private social networks commonly referred to as community platforms. According to Owyang, these platforms provide social networking functionality behind the protection of a company's firewall. In other words, access to company-specific information, such as group discussions, workgroup or CoP collaboration, or project management problem solving, could not be accessed by those outside the company, unless the company's intranet is hacked into illegally. In addition, Owyang (as cited by Weston, 2009) explained that community platforms provide more flexibility than Facebook offers, because these platforms can be modified to meet the specific needs of a work group or organization.

The social interaction facilitated by these community platforms supports Fernado's (2010, p. 504) concept of social media, which includes the dissemination of information through extremely accessible publishing systems. Fernado (2010) argued that community-driven, information-focused social media technologies offer an enormous capacity for organizations to foster communities whose purpose is the exchange of knowledge. Community platforms have the potential to facilitate the evolution of KM from its original strategies that focused on attaining, codifying, and disseminating knowledge, to a strategy of educating and innovating (McElroy, 2000, p. 199).

LESSONS LEARNED

Chua (2006) provided four lessons for others considering communities of practice. Some of these points included the need to develop CoPs from communities that already exist, as they cannot be formed arbitrarily because of the need for existing communication networks, relationships, and similar interests that are already in place. Such groups would have already developed trust and commitment, which are necessary elements for success. Informal knowledge leaders, highly regarded by peers as having influence, should be the leaders and are the most appropriate candidates for leadership positions in the CoPs. At the beginning, the focus should be on performance, outcomes, and accomplishments; resources should be considered after successes are demonstrated. Alignment within the CoPs and their focus, including alignment with organizational goals, is critical as this alignment enhances motivation and commitment and support strategic goals. Braganza and Mollenkramer (2002) added to the lessons learned, including the need to manage interdependencies with other communities; these cannot be neglected. Knowledge must be defined in specific terms, as processes are unique and terms may have different meanings between different groups and different processes. Knowledge sharing must impact everyday jobs, as sharing this information among individuals in the same process will enable more effective descriptions. However, once knowledge is identified, subdomains can be established, as long as clear context is available. This is why content needs to be identified by those who perform the activities and belong to the natural group in the business process. If

explicit knowledge is the primary focus, a great deal of knowledge will be lost; tacit knowledge must receive at least as much consideration and this is passed along through stories, sharing, and formal and informal meetings of those in the business process. Finally, external consultants, if used, often bring different and potentially conflicting language, techniques, and methods that may cause overlap. Consultants should not be positioned between top leadership and project teams or CoPs, or be directly responsible for KM and CoP efforts (Braganza & Mollenkramer, 2002). However, those who can contribute to the CoP such as other stakeholders or relevant experts can be included at the discretion of the community.

Organizations must also be aware that underlying assumptions and existing perceptions must be examined. Huysman and de Wit (2004) identified several traps that could stall or hinder efforts to cultivate CoPs. Although technology supports the codification of knowledge and, often using technology, focuses on how organizations are driven by technology, this only addresses explicit knowledge. The other problem is that knowledge that exists in documents and expert systems rapidly becomes outdated, especially in IT. Organizations need to be aware of the rapid deterioration associated with knowledge bases. Any perception that KM is seen as benefiting only management or is constructed from the management perspective may defeat any efforts before they begin. This is a call for transparency within the organization to allow workers to gain knowledge, develop, and create within their job functions whatever is necessary to reduce redundancies, and support learning across divisions and natural boundaries such as time zones and departments. Managers interested in intellectual capital to support and enable organizational success must recognize that core competencies are examples of tacit knowledge that reside within individuals, not databases. Because databases store information and not experience, individuals must learn from their own experiences and the experiences of others. This represents the basic challenge of databases, which is the lack of face-to-face interaction for members of the community.

RECOMMENDATIONS

Brown and Duguid (1991) explained how leadership may be surprised to learn that unofficial CoPs, which are based on social networks, may already exist in their organizations. Rather than being imposed by structure and policy, employee relationships lie at the heart of CoPs and are evidenced by the social networks that are built around these relationships. To effectively support work, learning innovation, and collaboration, leadership must acknowledge these unofficial communities and work with them to determine how to best support their activities, which allows development and pursuit of goals aligned between personal interests of the members and the strategic plans of the organization. Independence and autonomy are necessary to some extent, and interplay among different communities is an essential element for innovation (Brown & Duguid, 1991).

Leadership must also understand that the community cannot be isolated if learning and collaboration are to occur. Instead, these communities must determine their own boundaries and with whom they collaborate, as work processes are best defined by those who work in the processes. As communication is the basic element in CoPs, technology must support the social networks that are already in existence and cannot be superimposed. Formal and informal meetings, e-mail, conference calls, live video, and other forms of technology will work only if

they support existing communication patterns. Without knowledge of how CoPs really work, management may waste resources or even contribute to a negative impact or failure in an effort to support employees in their jobs, if technology is provided in an inappropriate response to a social situation.

One of the challenges for CoPs that was addressed by Huysman and de Wit (2004) is the general lack of process through which knowledge is collectively shared. This is caused by the weak or nonexistent local learning and knowledge sharing processes, regardless of locations and endeavors. Without processes in place at the local level, this does not bode well for the organization, the group, or the individual. Initiatives must connect people to facilitate the sharing of individual knowledge and this requires more than electronic networks. Some organizations rely on physical networks such as special interest groups (SIGs). A combination of learning processes that would provide individuals access to collective knowledge, support individual learning, and allow individuals and groups access to this knowledge would be strongly recommended as a means to support group learning. Providing collective access from shared group knowledge to organizational knowledge will support organizational learning.

The importance of personal networking and collaboration to the development of ideas (Proctor, 2013) cannot be stressed enough. To this end, CoPs require people who are capable and willing to transfer knowledge. This reflects on the culture and practices of the organization, as trust and effective working relationships are necessary. Organizations may unintentionally disrupt the social networks with "rightsizing," consolidations, and re-organizations; therefore, care must be taken not only to assess and compensate for potential negative impacts, which may prove disruptive and create a harmful effect on innovation and communication, but also for any action that removes a CoP from direct interaction with the environment (Brown & Duguid, 1991). Without direct interaction, new knowledge is unlikely.

Supporting CoPs means finding ways to support the existing social network and communication patterns, providing access to the environment, and enabling the time and space to support effective working relationships. Huysman and de Wit (2004) provided Unilever as an example. Unilever established a practice of organizing workshops through which individual employees share their expertise across multiple product lines and, in particularly, across geographic areas. Not only does this help identify knowledge gaps and collect knowledge for databases, the practice itself developed into a facilitation effort for CoPs, because the workshops promote encounters with people who hold similar interests, develop relationships, and extend contact with each other after the workshops, thus developing into a social network. In support of this type of activity, Proctor (2013) conjectured that individuals who possess "a common bond of beliefs and values may do much to promote the sharing of all kinds of useful knowledge" (p. 170).

CONCLUSION

KM and CoPs provide a pathway to support the evolution necessary for personal development at the individual level, collaboration and learning at the group level, and strategic advantage at the organizational level. To enable CoPs, organizations must allow knowledge workers to be responsible for their own contributions and their decisions as well as the consequences. This empowerment leads to accountability: Knowledge workers, who are given autonomy and

responsibility, are also held accountable for quality and quantity. When used effectively, CoPs can provide continuous innovation based on day-to-day activities, continual learning, and diligent teaching. As such, the employees and the CoPs can become significant capital assets. However, management must keep in mind that this human capital is mobile, and their relationship with the organization is a key concern relative to turnover, commitment, productivity, and job satisfaction. Organizations should review not only their culture, but also their current practices relative to employee empowerment and the decision-making processes, how employees communicate, and if there are processes such as performance measurements and rewards (Cabrera & Cabrera, 2005; Ulrich & Brockbank, 2005) in place that support learning and sharing. The success of KM and CoPs is dependent on knowledge sharing, which is a complex process and demands more than traditional-business-as-usual practices (Cabrera & Cabrera, 2005). Competitive advantage may be at risk if organizational cultures do not support the environment that enables engagement, employee participation and empowerment; space, time and opportunities to develop communication networks, and support for existing social networks to cultivate knowledge workers and CoPs.

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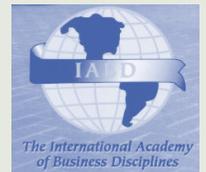
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