

# Limitations of Communities of Practice

## A Consideration of Unresolved Issues and Difficulties in the Approach

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Communities of practice are becoming increasingly common on the organizational landscape. Organizations are simultaneously incorporating communities of practice into internal knowledge management systems and spanning elements from the external environment. However, the literature has tended to favor the positive outcomes with the approach. This article explores potential challenges confronting communities of practice so that organizations may better manage conditions crucial to their success. Perspectives of time constraints, organizational hierarchies, and regional culture are highlighted, and propositions bearing consideration when implementing a community of practice are stated. A discussion section ends this article.

**Keywords:** *knowledge management; organizational learning; communities of practice; organizational hierarchy; time poverty*

Communities of practice, despite being a term of relatively recent invention, have become increasingly utilized by organizations as a means of improving performance (Wenger, 2007). A substantial volume of literature has been published that generally communicates a positive or even “rose-tinted” view of communities of practice (Pemberton, Mavin, & Stalker, 2007), and there is little argument regarding the potential benefits that can accrue to organizations that are able to effectively integrate communities of practice within their existing structures (McDermott, 2002; Pemberton et al., 2007; Wenger & Snyder, 2000). However, communities of practice should not be regarded as a “magic bullet,” capable of enabling an organization to seamlessly disseminate knowledge, or to overcome both organizationally and socially constructed barriers.

Given the growing importance of knowledge management, both internal and external to the organization, it is imperative that communities of practice be understood in terms of their limitations, as well. This article attempts to more fully explore limitations, from the perspectives of time constraints, organizational hierarchies, and regional culture (sociocultural environment) that have been overlooked regarding the community of practice approach, and encourage academics and practitioners alike to both deepen and broaden their understanding of this knowledge management tool.

### Communities of Practice— A Brief History

The origin of the term “communities of practice” may be traced to Lave and Wenger (1991), who first used the term in describing situated learning, where learning is not simply the acquisition of propositional knowledge, but rather occurs through certain forms and types of social coparticipation, is contextual, and embedded within both a social and physical environment. The learning that occurs within a community of practice is highly interactive, with the individual learner not simply accessing a discrete, static body of abstract knowledge to be transported and reapplied in subsequent contexts and situations. Rather, learning and skill acquisition occur by actually engaging in the desired practice itself, within a participational framework, not an individual mind. It is distributed among the various individuals who are participating together within the learning context, and is mediated by their differences of perspective. Apprentices (those individuals new to a certain community of practice) may gain

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more in proportion to their knowledge status prior to joining, but masters (experienced community of practice members with socially acknowledged higher levels of expertise) learn, and continue to learn as a direct result of their membership and participation within the community, as well. In addition, even in instances where a fixed, immutable doctrine is transmitted from master to apprentice, the ability of such a community to reproduce itself is rooted not in the doctrine, but in the continued maintenance of certain modes of coparticipation and community in which the doctrine is embedded (Lave & Wenger, 1991).

The term “apprenticeship,” as defined within the context of a community of practice, is not confined to the character that is frequently ascribed to it, that being of an anachronistically irrelevant tradition, such as a feudal European craft guild. Instead, apprenticeships in modern society are frequently served, in some form, wherever high levels of skill, knowledge, and expertise are demanded, throughout a diverse array of disciplines (medicine, law, teaching, professional sports, the performing arts, industrial trades), and across much of the contemporary world (Lave & Wenger, 1991). In fact, there are striking parallels between the occupations that traditionally have been regarded as requiring an “apprenticeship” and those in present day society that are staffed by “professionals”—both allow for the management of greater task complexity by confronting it with more highly qualified workers (rather than through the subdivision of tasks among differentiated workers with a limited repertoire of skills), able to use their knowledge, skills, and abilities with a high degree of flexibility, independence, and under uncertain circumstances (Scott, 2003).

This diversity of application is reflected within the five accounts of apprenticeships from which the concept of a community of practice was originally developed: Yucatec Mayan midwives in Mexico, Vai and Gola tailors in Liberia, the work-learning settings of U.S. Navy quartermasters, butchers in U.S. supermarkets, and “nondrinking alcoholics” (recovering alcoholics) in Alcoholics Anonymous (Lave & Wenger, 1991). Although these five accounts provide a contemporary basis for the concept, communities of practice have likely existed in a similar form for centuries. The ancient Romans had “corporations” of craft-based artisans, including metalworkers, potters, and masons, having both a social aspect, with members worshipping common deities and celebrating holidays together, and a business function, as a means of earning a living, training apprentices, and spreading innovation. Every organization and industry possesses its own history of practice-based communities,

even if these are not formally recognized (Wenger, McDermott, & Snyder, 2002).

## Definition and Common Characteristics of Communities of Practice

Lave and Wenger (1991) originally defined a community of practice as being a set of relations among persons, their activity, and the relevant environment, the relationship existing over time (brief or extended), and interfacing with other adjacent or tangential communities of practice. Lave and Wenger (1991) also state that a community of practice is an intrinsic, essential condition for the existence of knowledge. Table 1 contains a description of the more common characteristics of a community of practice. The existence or implicit acknowledgement of a greater number of listed characteristics, coupled with an increased richness of shared experience for each characteristic among members, may facilitate the overall effectiveness of a given community of practice. This list is not all inclusive, as there are other common characteristics that may develop, evolve, or emerge among community of practice participants during an extended period of time.

## Structural Components of Communities of Practice

Communities of practice vary greatly in form, size, and even name, yet all possess certain fundamental structural components. Table 2 provides further detail regarding the structuring of communities of practice along several relevant dimensions. Communities of practice are created in response to a diverse array of situations, circumstances, and people. As such, they correspondingly vary on the structural components that are listed. In addition, to optimize the effectiveness of a given community of practice, the structural components may need to be adjusted by members on occasion.

## Distinctions Between Communities of Practice and Other Structures

Together the terms “community” and “practice” refer to a specific type of social structure with a specific intended purpose (Wenger et al., 2002). Table 3 provides information contrasting a community of practice with other, more familiar social structures to describe the relevant dimensions along which it may be differentiated. These distinctions, structural components, and common characteristics are vital for a community of practice to function effectively and to gain legitimacy, recognition, and permanence within an organization.

**Table 1**  
**Common Characteristics of Communities of Practice**

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<p>Continuity of mutual relationships; may be harmonious or conflicting. Including task- or work-related relationships; may be collegial or strained.</p> <p>Shared ways of engaging in common activities, best practices.</p> <p>Rapid flow of information among community members (very fluid grapevine).</p> <p>Absence of introductory preambles or ceremonial speech (no “come to order” pronouncement). Conversations and other interactions often have the character and feel as if they are simply being continued from where they stopped.</p> <p>Problems and other issues quickly framed; little necessity of providing extensive background.</p> <p>Common consensus regarding membership, belonging.</p> <p>Awareness of others’ competencies, strengths, weaknesses, where contributions can be maximized.</p> <p>The ability to assess effectiveness and appropriateness of actions taken and products produced.</p> <p>Common tools (physical and cognitive), methodologies, techniques, and artifacts.</p> <p>Common stories, legends, lore, inside jokes, humor, etc.</p> <p>A shared and evolving language, including jargon, acronyms, and unique terminology. Nature of the group also facilitates the creation of language “shortcuts” to increase communication efficiency.</p> <p>Behavioral patterns and interactions recognized as signifying membership.</p> <p>Common perception, viewpoint, or vantage point of relevant external environment.</p>
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Source: Compiled from Wenger (1998), Nickols (2007), and Roberts (2006).

**Table 2**  
**Structural Components of Communities of Practice**

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<p><i>Population size:</i> Can vary from a few specialists to hundreds of members. As population size increases, so does the likelihood of subdivision along related characteristics, such as geographic region or subtopic, to optimize membership activity and experience.</p> <p><i>Longevity:</i> Development of practice takes time but can vary from a few years to several centuries.</p> <p><i>Means of member interaction:</i> Oftentimes start among individuals who are acquainted with one another and are colocated, as a community of practice requires regular interaction. However, as new communication technologies allow for quicker information exchange, richer media content, and seamless integration of geographically distant members, distributed communities of practice are rapidly becoming the standard, not the exception.</p> <p><i>Product vs. process:</i> Communities of practice are easier to form with individuals possessing similar information coordinating responsibilities (engineering, marketing, human resources, etc.), as their knowledge and backgrounds are often very similar. However, communities of practice can also be formed along product lines, as well, where people with different functional responsibilities, but sharing a common product responsibility, interact.</p> <p><i>Intra- vs. interorganizational:</i> Communities of practice often arise as a recurring problem is addressed by those who are affected by it within an organization, public or private. Communities of practice are frequently a useful tool in an interorganizational setting by assisting individuals employed in fluid, rapidly changing industries. By allowing the exchange of relevant information and technologies among organizations that, individually, might not have the time, resources, or manpower to remain current, employees are able to access a knowledge base of peers.</p>
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Source: Compiled from Wenger (1998), Wenger, McDermott, and Snyder (2002), and Scott (2003).

## Internal Knowledge Management System

As communities of practice have developed, so have the contributions within the literature to suggest this structure can be cultivated within an organization with the intent of leveraging for competitive and strategic advantage (Roberts, 2006; Saint-Onge & Wallace, 2003; Wenger et al., 2002) and to enhance and improve performance. However, it must also be stated that communities of practice are resistant to supervision, interference, and cooptation by an organization, because of their inherently organic and informal nature (Wenger & Snyder, 2000). In addition, management support must be present, from senior level to first line, or

meaningful progress will not be possible (McDermott, 2000), and although these structures are informal in nature, communities of practice frequently reflect the “fault lines” along which the organization naturally (as opposed to rationally) operates (Scott, 2003; Wright, 1998). How then does management support communities of practice when they, paradoxically, are difficult to manage? Although an answer to this question is elusive (and, admittedly, beyond the scope of this article), communities of practice can improve the knowledge sharing capabilities within an organization.

In the gas and energy exploration industry, improving knowledge-sharing abilities by linking relevant

**Table 3**  
**Distinctions Between Communities of Practice and Other Structures**

Structure	Purpose of Group	Who Has Membership	Boundary Clarity	How Is Cohesiveness Maintained	Longevity
Community of practice	Create, expand, and exchange knowledge to develop individual capabilities	Self-selection based on expertise, interest, or passion for topic(s)	Fuzzy	Passion, commitment, cognitive identification with group and its interests, goals, and knowledge	Start, evolve, and end organically (last as long as topic relevance, value, desire to learn communally)
Formal departments	Product or service delivery	Group's manager and subordinates reporting	Clear	Job requirements, common goals and objectives, hierarchical	Relatively permanent (lifespan typically related to product or service relevance)
Operational teams	Ongoing operation or process care and maintenance	Organizational fiat, assigned by management	Clear	Shared responsibility for ongoing process or operation	Ongoing (lifespan typically related to relevance or necessity of process or operation)
Project teams	Accomplish predetermined task or objective	Those who bear direct responsibility for accomplishing the task	Clear	Team acknowledgement of the project's goals, milestones, progress	Specific (ending exists, typically occurs when project is acknowledged as complete)
Communities of interest	Informational	Self-selection based on individual interest	Fuzzy	Information access, sense of likemindedness	Start, evolve, and end organically
Informal networks	To be in an "information loop," to validate relevant people in life, collect and share common information	Friends and business acquaintances, friends of friends, those who possess and provide information of value	Not defined	Mutual needs, relationships, regards toward others, perceived value in belonging and participating	Ambiguous (exist as long as contact between individuals continues or memory remains intact)

Source: Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating Communities of Practice*, p. 42. Boston: Harvard Business School Press. Copyright © 2002 by Harvard Business School Press. Adapted with permission.

internal technical experts has resulted in faster project completion times and less duplication of efforts (Edmundson, 2001). At Schlumberger, a knowledge management system named Eureka links more than 5,200 Oilfield Services technical experts into communities of practice. These communities allow the ability to share know-how, hot tips, and conceptual understanding—the “infinite knowledge we all have in our heads” (Edmundson, 2001). In addition, they allow each technical expert within Schlumberger two locations to call “home”: the organization the individual happens to be working in during the current assignment (the formal, rational, hierarchically sanctioned position codified on an organization chart) and the Eureka technical community, likely to remain

their home for an extended period of time (the informal, natural, horizontally linked network of peers the individual will consult regularly within the relevant community of practice) (Edmundson, 2001).

### **Relevant External Knowledge Environment**

Communities of practice have also been suggested as a novel and innovative approach for connecting an organization to its broader environment. As the “knowledge economy” has increased the complexity of markets, learning systems, and relationships, it is now possible, and perhaps necessary, to conceive of communities of practice that weave broader value



webs beyond the formal, rational boundaries of the organization (Wenger et al., 2002).

Organizations that have benefited from initiatives to increase internal knowledge by reaching outside of their formally defined boundaries include seven cities in the Philippines. These cities were working with the World Bank's urban department and planning for future development (Fruman & Kawashima, 2003). A community of practice was a natural outcome of their efforts to more effectively learn from other cities confronting similar circumstances and challenges with urban development, municipal management, financial planning, and service delivery. Technology innovations such as the Internet and video conferencing enabled these seven cities to learn directly from the nation of Chile and the Chilean Association of Municipalities. Many of the cities were able to simply adopt existing models from similar counterpart cities in Chile and save money by forgoing consultants and other experts. In addition, the community of practice is able to connect each participant to the correct solution or solutions to a problem in an efficient and timely manner, improving city management, service delivery, and reducing isolation. In fact, this extended knowledge management initiative has proven so successful that city officials in China, Vietnam, and Indonesia have expressed interest in emulating the community of practice initiated by their counterparts in the Philippines (Fruman & Kawashima, 2003).

### **Description of Challenges Confronting Communities of Practice**

Despite the potential value and contribution that communities of practice offer to organizations, there are unresolved issues and difficulties that are not readily apparent. The challenges described herein are intended to illuminate pervasive difficulties that are not easily recognized or discerned in individual communities of practice, as they typically occur at the structural, ecological, and cultural level of organizational analysis. By doing so, it is the author's intention to add a voice of caution to the extant literature on this topic. In addition, by drawing attention to these potential limitations, organizations attempting to cultivate, nurture, and grow communities of practice may gain an understanding of where additional support and guidance may be necessary, and of the situations, circumstances, and settings where a community of practice may be inappropriate or will likely yield only marginal gains.

### **Time Demands and Constraints**

The first challenge confronting communities of practice is the availability of time in which to engage in the activities that are necessary for them to be effective. For purposes of this article, time is defined as the ability for a given community of practice to engage in prolonged, sustained discourse. Such engagement is typically nurtured by a certain amount of insulation or protection from shorter-term vagaries that might be present within the competitive environment, or circumstances that permit the formation of communities without the threat of their actual practice becoming obsolete or outmoded in the immediate future. Time may also be considered as the ability to structure a given period (e.g., one day or perhaps even one week) to involve oneself in the activities conducive to the effectiveness of a community of practice, such as regular meetings, allowing for engagement with others.

Organizations today must contend with increasing complexity (resulting from the proliferation of stakeholders in the environment and the level of complex knowledge necessary to understand that environment [Bowditch & Buono, 2001]), and intensifying competition as globalization, and its accompanying forces, alter the economic, political, and social landscape (Roberts, 2006). Organizations are also increasingly expected to use improved performance as a means of satisfying financial market demands. The confluence of these forces is creating an acceleration of business activity, one which is also encouraged in the extant management literature relating to the topic (Davis & Mayer, 1998; Gates, 1999). As this acceleration continues, and as organizations demand ever-increasing efficiency from their participants, it is increasingly likely that, given the conditions necessary for communities of practice to demonstrate their value to organizations, these conditions are eroding and less likely to be present.

A recent example of the "time crunch" confronting modern organizations (at least those with operations headquartered in the United States) and the increasingly regulated environment they must operate within may be witnessed in the Sarbanes-Oxley Act of 2002, or "SarboX." In a survey involving 217 publicly traded companies, nearly all (94%) responded that the costs of compliance exceeded the benefits ("Sarbanes-Oxley Act," 2005). In addition, this mammoth compliance effort has been criticized as being impractical, bureaucratic, and perceived as having few expected returns other than staying off the front page of the newspaper ("Calculating Costs," 2006). The reason

legislation such as Sarbanes-Oxley compliance is likely to impair the effectiveness of a community of practice is because of the organizational capital (financial and social), of which time is a major component, typically necessary to comply with such legislative fiat. Consequently, the time available to attend to the more informal and natural, but ultimately performance, strategy, and value-enhancing activities of the firm, of which a community of practice may be centered around, is reduced. In addition, because of stricter internal monitoring and the enactment of controls on activities adjacent to accounting and financial reporting, SarbOx has also created a “ripple effect” of accountability, and associated red tape, for many others within organizations, further constraining time.

Prevailing trends regarding the time spent by Americans within the paid labor market indicate that time is likely to become even more constrained and less available for communities of practice and other such activities in the immediate future. For example, between 1970 and 2002, per capita annual hours worked in the United States rose by 20%, the most among developed nations. For purposes of comparison, the per capita annual hours worked declined by 17% in Japan and 24% in France (Organisation for Economic Co-operation and Development, 2004). Although gains in productivity (which are averaging an annual gain of 4.1% in the current business cycle) would be expected to offset the need to work more hours, the fact that gains in real compensation (which are averaging an annual gain of 1.5% in the current business cycle) have grown only 37% as fast as productivity have seemed to place additional pressures on employees to log additional time at work (Mishel & Bernstein, 2005).

Time-consuming activities such as Sarbanes-Oxley compliance can be expected to proceed, even in the absence of substantiated evidence that such legislation increases internal organizational efficiency (DiMaggio & Powell, 1983). Considering the fact that economic markets place a premium on rationalized, predictable, and legitimate formal structures (J. W. Meyer & Rowan, 1977), and communities of practice are by definition natural and informal (frequently not formally recognized), the author asserts the following:

*Proposition 1:* As increased work demands further constrain the time available for participants within a given organization, they will likely do so at the expense of the effectiveness of communities of practice.

## Organizational Hierarchies

Communities of practice are frequently conceived within established organizations, and as such must coexist with a preexisting organizational hierarchy. Organizational hierarchy has among its proponents Fayol (1916/1949), the French industrialist who is credited with describing the central elements and principles of Administrative Theory. In addition, the German sociologist and political economist Weber (1906-1924/1946), a contemporary of Fayol, distilled numerous observations about early 20th century Western civilizations into his writings on bureaucracy.

Although Weber and Fayol wrote about organizational hierarchies a century ago, there can be little question these structures are still with us today. In fact, nearly every large organization remains hierarchical, and it remains the basic structure of most, if not all, organizations in existence (Leavitt, 2003). These facts are particularly problematic for communities of practice, as they are diametrically opposed to organizational hierarchy in many ways.

For example, the modern-day organization chart, and the hierarchical structuring manifest within it, has its origins in the scalar chain of Fayol (1916/1949). A self-evident observation of the organization chart is its verticality, with the CEO, president, or chairperson at the top, his or her direct reports (typically division or group vice presidents or executive officers), and cascading downward all the way to line or “shop floor” employees. Organization charts reflect not just reporting relationships, but also organizationally sanctioned lines of communication, the relative centralization of control and power, the authority to give orders and exact obedience, and to discipline subordinates when necessary and appropriate. However, communities of practice are typically most useful when linking individuals within an organization that are functionally similar or equivalent, such that the nature and scope of their interaction is to solve commonly faced or experienced problems, to exchange ideas, to share knowledge directly applicable to daily work, and to refine and spread innovative practices.

As such, communities of practice do not possess any of the formally sanctioned powers manifest within the organization chart, even if communities of practice are the informal apparatus allowing individuals to increase personal knowledge and efficiency, with improved organizational performance a critical (if not always well-understood) outcome. However, if the majority of individuals within an organization are more concerned

with maintaining and adhering to the organization chart and its hierarchical ordering than with maximizing organizational performance, even if hierarchy and its salient rules may occasionally be breached, than the “status quo” will prevail (M. W. Meyer & Zucker, 1989), and community of practice efforts are not likely to produce any substantive progress or benefits. Worse, they may be perceived as several previous organizational “fads” that failed to realize their potential. Therefore, the author asserts the following:

*Proposition 2:* Organizational hierarchies, given their ubiquity, durability, and verticality, and numerous dimensions at which they are at cross-purposes with communities of practice, are likely to impede efforts for successful community of practice integration and utilization.

### Regional Culture (Sociocultural Environment)

A community of practice, being a social configuration, is likely to reflect the wider social structures, institutions (or lack of them), and sociocultural characteristics present in the broader environmental context in which it is situated (Roberts, 2006). As such, societies having strong social structures, and a sociocultural environment valuing community over individuality, may correspondingly have stronger and more effective communities of practice (Roberts, 2006).

When investigated at a regional level, it is useful to differentiate sociocultural characteristics along the dimensions of Eastern and Western. The cultural influences that historically dominated Eastern societies (which we define as present-day China, Japan, South

Korea, Taiwan, and other Pacific-bordering nations in close proximity) were very different from those cultural influences historically dominating Western societies (present-day Europe, Australia, Canada, and the United States). Consequently, both cultures differ in their practices regarding practical knowledge, and follow different patterns of social interaction, social role behavior, and interactional styles (St. Clair & Jia, 2005). Table 4 provides relevant dimensions along which the expression of certain cultural values is typically made by Eastern and Western societies. It is worth noting that the tradition of the Greek philosopher Aristotle in Western societies and the teachings of Confucius and Lao Tze in Eastern societies have provided two very different concepts of human agency.

The Western self is oriented toward the ego, or egocentric self, whereas the Eastern self is oriented toward the group, or allocentric self (St. Clair & Jia, 2005). On the dimensions of individualism or collectivism, Eastern societies believe people are fundamentally connected, and duty toward all others is a very important matter, making collectivism stronger. Western societies believe people have an individualistic nature, making individualism stronger (Bibikova & Kotelnikov, 2007).

From the vantage point of a community of practice, we might expect those societies valuing group, community, harmony, collectivism, and interconnectedness over self and individualism to be more effective in their use of communities of practice in the business environment and elsewhere, as Eastern business networks and Western corporations are fundamentally different organizational forms, having emerged in distinct sociocultural environments (Castells, 2000; Roberts, 2006). This would suggest

**Table 4**  
**Expression of Cultural Values, Eastern Versus Western Society**

Cultural Value Expressed	Western	Eastern
Type of logic	Linear, formal logic that is rule governed	Mental model logic that is based on the context of the situation
Argumentation	Debate	Resolving contradictions, harmony
Expressions of self	Ego centered	Allocentric, focused toward others
Conflict resolution	Confrontation, win or lose	Mediation, seeking harmony, win-win situations
Philosophy	Conflict theory, self-actualization, individualism	<i>Taoism:</i> The Tao, not going against the will ( <i>wuwei</i> ), do not disturb the spirits <i>Confucianism:</i> Filial piety, family devotion, obeying the virtues, do good for others, establish character <i>Buddhism:</i> Deals with death, emptiness, compassion, interconnectedness

Source: St. Clair, R. N., & Jia, Y. X. (2005). Cultural harmony versus cultural dissonance: Philosophical approaches to conflict resolution. *Intercultural Communication Studies*, 14, 9. Copyright © 2005 by the International Association for Intercultural Communication Studies. Adapted with permission.

that Western societies, where the majority of literature regarding the communities of practice approach has been developed and written, are at a disadvantage to their Eastern counterparts concerning the ability to capitalize on communities of practice. In addition, to compound the cultural hurdles confronting communities of practice in Western societies, the recent pursuit of neo-liberalism, with its emphasis on the individual, has further eroded the sense of community (Roberts, 2006). This continuing erosion of community in favor of individualism in the social context represents an ominous trend for organizations attempting to capitalize on the community of practice approach in Western societies. Therefore, the author asserts:

*Proposition 3:* Organizations operating in Western societies are likely to be less successful than their Eastern counterparts in capitalizing on the communities of practice approach because of historic, inherent, and continuing sociocultural differences that create relative disadvantages:

## Discussion

This article seeks to present a historical background, establish a definition, and describe common characteristics of communities of practice. It presents information on how a community of practice, being a natural, informal, organic group of individuals, might be used to effectively complement formal, rational, structural features of the modern organization. In addition, it outlines how it may be extended outside of the organization's rationally defined boundaries to incorporate useful elements of the environment. However, despite the upside potential for a community of practice, an upside that is extolled at length in the extant literature available, there are challenges that have not received sufficient attention from either the business or academic community. This article sets forth three propositions highlighting structural, ecological, and cultural forces that are likely to impair the introduction, implementation, and integration of a community of practice within an existing organization. By doing so, several possible directions and areas for future research into the communities of practice approach may emerge.

One such area for research consideration should attempt to account for institutional isomorphism, and the relative importance to an organization to structure itself according to these forces. J. W. Meyer and Rowan (1977) make clear that institutional isomorphism, and the formal, rational structures that it gives

rise to, are deeply ingrained, and reflect widespread understandings of social reality.

If formal, rational structures are the result of organizations attempting to conform to their understanding (correct or incorrect) of social reality, it follows that industries with less formal, less rational structures (therefore possessing structures that are more informal, more natural) may have had less time in which to implement structural conformance, which will likely correlate to industry age. As such, an investigation regarding the effect of institutional isomorphism along the dimensions of industry age, and the relative effectiveness of communities of practice within firms comprising these industries, might serve to guide efforts of companies attempting to implement communities of practice, and to offer more realistic expectations as to their potential.

In addition, because this area of research has characteristics that are more objective, quantifiable, and recognizable to those firms and industries likely to realize benefits from its undertaking, it is suggested that it proceed first. For example, the list of companies, and their corresponding industry memberships, comprising the Standard & Poor's 500, has legitimacy within the business community and beyond. Relative age of various industries, industry membership (both historical and current), and experience with communities of practice could serve as the initial parameters against which to include study participants. Companies need not be members of the S&P 500 index to be included, nor do the industry memberships or descriptions need to rigidly reflect those found in this listing. However, such business underpinnings could serve to increase the credibility, and the likelihood of the enactment and integration of lessons learned and other results, from any studies undertaken.

Communities of practice may benefit from a flatter, horizontally linked organization. This statement comes as a result of the discussion on organizational hierarchies, and the fact that reporting structures reinforce many of the dimensions that are at cross-purposes to an effectively functioning community of practice. As such, the hierarchical organizing of modern organizations, and the challenge this presents to the community of practice approach, is another avenue that holds potential for scholarly investigation.

Any empirical testing would likely need to consider not whether or not organizational hierarchy is present—the author asserts it is ubiquitous. Rather, consideration for the degree of hierarchy, including, but not limited to, the number of “layers” of employees



(distance from “top to bottom” of an organization, also including variables such as the number of pay grades, number of units or divisions, and the total number of employees), age of an organization, industry, titles commonly used, relative power concentration, and so on, would likely be necessary to lend greater credibility and legitimacy to any studies undertaken. For an organization to seriously consider moving from a more vertical to a more horizontal structure, the firm will likely need to reassess its core competencies and capabilities, culture, and the challenges that may threaten the present continuity in its relationship with all stakeholders in such an undertaking (Saint-Onge & Wallace, 2003). These challenges include reevaluation of performance measures, incentives, job descriptions, reporting relations, information systems, career incentives and progression, and communication channels, to name only the most relevant.

In addition, an atmosphere of security and trust is critical if task orientation (Scott, 2003), and the community of practice approach that is well suited to such an endeavor, is to be the focus of decision making within an organization. However, what is necessary to facilitate a more horizontally linked organization, and what is available, are not always the same, and it is questionable as to whether the majority of organizational settings are conducive to such an undertaking at the present time (Scott, 2003).

Another context for empirical testing of the impact of organizational hierarchy on communities of practice may be found within the matrix structural arrangement (Scott, 2003; Steiner & Ryan, 1968). In a matrix structure, both vertical (the hierarchically sanctioned, formal, rational organization structure) and horizontal (potentially those organizational actors identifying with a common community of practice, and reflecting the informal, natural organizational structure) channels of information and authority operate simultaneously (Scott, 2003). The unity-of-command principle is violated, and competing bases of power are allowed to jointly oversee and govern work flow. Perhaps past studies investigating the relative effectiveness of matrix structures operating within an organizational hierarchy (Kuprenas, 2003; Srivastava, 2005) could serve as a blueprint and be adapted to a community of practice study, as relevant and salient similarities do exist among the structural types.

Finally, given the differences existing between Eastern and Western societies, their orientation toward the self, and their regard of individualism versus collectivism, it would be appropriate to investigate the

relative effectiveness of the community of practice approach in societies strongly identified as such. Studies could be conducted concurrently in the United States and China (or any of several Western and Eastern nation pairings), investigating whether or not relevant differences in effectiveness appear as a result of the societal context the community of practice is situated in. Because empirical studies regarding communities of practice outside of Western settings are very limited, the scholarly output of such cross-cultural investigations may require additional time before more valid comparisons are possible.

Although potential limitations have been highlighted within this article, it also must be acknowledged that the community of practice approach, and its applicability to knowledge management, is still evolving (Roberts, 2006). And despite these limitations, a community of practice does provide a useful and valuable alternative to more traditional knowledge management approaches, which have tended to focus on explicit or codified knowledge (Roberts, 2006), and placed less emphasis on tacit knowledge, as it is less teachable, less observable, and does not travel easily between individuals and firms (Badaracco, 1991). As approaches to knowledge management mature, so should our understanding of the organizational contexts that are most appropriate for a community of practice. However, from the preceding discussion, we see that challenges exist not only within the firm, but within our society, as well.

In closing, a community of practice approach can provide value to the modern organization. However, if the modern organizational realities including, but not limited to, the issues and difficulties explained herein are not appropriately accounted for, communities of practice may fall short of expectations.

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