

Informal Workplace Learning Through Online Communities of Practice

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Abstract

This paper examines informal learning in the workplace and how informal learning in organizations is facilitated through one popular method, the community of practice. Most workplace learning is done informally rather than through institutional training, but the category of informal learning is broad and somewhat ill-defined. Much informal learning is implicit, unintentional and sometimes unrecognized, but informal learning can also be explicit, intentional and self-directed. Organizations can approach the issue of optimizing informal learning by encouraging self-directed learning. The community of practice is one useful framework for organizational self-directed learning, particularly given the ready availability of social media tools for forming online learning communities. In communities of practice, workers engaged with similar ideas or tasks voluntarily communicate in order to learn from each other, sharing information, stories, and solutions to problems. Communities of practice have long been used in the workplace, but many now take place online. Online communities of practice face many of the same challenges as face-to-face communities, such as establishing a feeling of community and trust in other members, though other challenges are unique to the virtual environment, such as technical ease and reliance on text-based communication. Organizations seeking to facilitate informal learning and sustain vibrant communities of practice need to create an environment where learning is highly valued, as shown through willingness to question and reflect on practices, acceptance of mistaking-making, and acknowledgement of individuals' contributions to the organizations' shared knowledge.

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In an economy that values knowledge as an essential asset, modern organizations increasingly depend on the continual learning of their members. As a result, organizations must find ways to foster learning in order to compete. This need is evidently recognized; the Association for Talent Development's latest annual report found that in 2013, organizations spent an average of \$1,200 per employee on formal workplace training (Miller, 2014). However, most of the information, skills, and beliefs that workers need to perform their roles successfully are learned while they are on the job. The popular statistic, bandied about often enough to warrant specific explanations of its origins (e.g., Cross, n.d.), is that 80% of all workplace learning occurs experientially rather than through officially sanctioned education or training (e.g., Dabbagh & Kitsantas, 2012, Livingstone, 1999). On-the-job learning is typically referred to as informal learning, a broad label that actually consists of many different means of learning. The vagueness of the term, combined with the invisibility of the learning itself, creates a challenge for organizations, as optimizing informal learning in the workplace requires some understanding of how it takes place.

A second challenge is that some types of informal learning lend themselves more readily to intervention than others. Understandably, organizations have focused on learning that is more visible and more measurable, such as ensuring that knowledge is shared among members. The success of the Internet and the development of social media have greatly enhanced the potential for knowledge-sharing and other informal learning (Dabbagh & Kitsantas, 2012; Rossett & Hoffman, 2012). Organizations have been eager to adopt tools for creating and sharing user-generated content, and have been particularly enthusiastic about online communities (Chiu, Hsu, & Wang, 2006). An online learning community is a group of individuals with a common interest

who interact predominantly in a virtual environment (Teo, Chan, Wei, & Zhang, 2003). Because of the similarity with other practices used for professional collaboration, online communities offer a convenient context for organizations to encourage informal learning

While organizations may recognize the value of informal learning, their efforts to support it can be undermined by a lack of understanding of the process. Attempts to use informal learning and knowledge-sharing tools such as online learning communities will be more successful if organizations are familiar with the characteristics of learners, virtual spaces, and workplace cultures that influence informal learning. In this paper, I aim to break down the elements of informal learning and to examine how organizations can facilitate workers' intentional informal learning through online communities of practice.

Adult Informal Learning

Defining Informal Learning

Informal learning is not only the dominant form of workplace learning, but also the dominant form of adult learning in general. In a survey of Canadian adults conducted by Livingstone (1999), adults reported spending an average of 15 hours a week engaged in informal learning. Despite this ubiquity, a precise definition of informal learning is surprisingly elusive, and it is usually defined by exclusion. Informal learning is understood to encompass all learning that is not formal. Formal learning usually involves a designated instructor, a set curriculum, externally-determined learning objectives, and some record of certification (Eraut, 2000). Researchers agree that formal learning is "institutionally sponsored, classroom-based, and highly structured" (Marsick & Watkins, 2001, p. 25), so informal learning is characterized as not institutionally sponsored, experience-based, not highly structured. In their theory of informal learning, Marsick and colleagues have outlined the major elements of informal learning: it occurs

within normal routines; it is triggered by a change or realized need for change; it is based on reflection; it is connected to others' learning; it is not highly conscious (Marsick & Watkins, 2001; Marsick & Volpe, 1999). Within these constraints, however, there are different degrees of formality. Informal learning that is more formal is considered explicit, and learning that is less formal is considered implicit.

Explicit informal learning is intentional, and can be furthered classified as either deliberate or reactive based on whether time is specifically devoted to pursuing a learning goal (deliberate) or whether unplanned learning must be pursued when need arises in the middle of an action (reactive) (Eraut, 2000). Implicit, or incidental, informal learning is unintentional: tacit knowledge is gained from experiences without us being consciously aware that we are learning. A major obstacle to studying informal learning is that activities are considered part of doing the job and thus are often not recognized as learning at all (Eraut, 2004). Implicit learning, though pervasive, is particularly obscured, so while it may be possible to manipulate at the organizational level, explicit informal learning presents more obvious opportunities. Examples of explicit learning include networking, mentoring, performance planning, and self-directed learning. Because self-directed learning is among the more deliberate approaches, supporting self-directed learning has become a central method for enhancing workplace learning (Marsick, Volpe, & Watkins, 1999).

Self-Directed Learning

Self-directed learning has long been a foundation of adult education, and adult learners are assumed to get increasingly self-directed with maturity (Merriam, 2001). Self-directed learning can actually refer to three different interacting elements: personal attributes resulting in the preference and capacity for autonomy; the extent to which a learning environment requires

self-direction; and the process of learning informally via self-direction. Self-directed learning is generally considered necessary for lifelong learning (Grow, 1991).

Models of self-directed learning share common components, but some researchers have raised the concern that classic models do not adequately address the impact of technology (Ellinger, 2004; Song & Hill, 2007). Fueled by this concern, Song and Hill proposed a model of self-directed learning that, while still containing the core components of older models, is intended to better apply to online learning. Song and Hill's model is comprised of three factors: personal attributes, processes, and contexts. Personal attributes include motivation to take responsibility in learning, learning and regulatory strategies, and resourcefulness. Processes include the amount of control a learner is granted in planning, monitoring, and evaluating their learning. Context includes design elements such as available resources, structure of the learning, nature of tasks, and support from others.

Research on self-directed learning is plentiful, but despite the fact that self-directed learning has inherently informal qualities, much of that research is situated in contexts that are more formal, and recommendations are aimed at course instructors (Grow, 1991; Song & Hill, 2007). Even researchers who identify the need for self-direction in the workplace may fail to explain how to implement these principles within an organization (e.g., Ellinger, 2004). This leaves open the question of how organizations can encourage self-directed learning among workers. One option is to take advantage of the outlets that self-directed workers have traditionally turned to for workplace learning: namely, communities of the practice.

Online Communities of Practice

Communities of Practice

Although the practice itself predates the theory, Communities of Practice is a framework advocated by Etienne Wenger (2000) that describes informal learning as the interaction between our personal experiences and the definitions of competence defined by our social communities. Communities of practice are formed when people who share expertise choose to come together to learn from one another about their field. Communities of practice are a source of much implicit learning, but are also strongly self-directed. Members actively seek communities as a learning resource, and the decision to participate is based directly on the individual's desire to learn. Wenger asserts that communities of practice are built on joint enterprise, or a shared sense of the community's purpose, mutual engagement, and a shared repertoire of communal resources. Expert members make up the core of the community, permitting novice members to engage in what Wenger calls legitimate peripheral participation, establishing mentor-apprentice relationships. Successful communities of practice work to sustain learning as their focus; establish deep trust, reciprocity, and productivity between members; and are self-critical about the influences on their practices. Professional organizations are a type of community of practice, but communities of practice can also exist within organizations.

Online Communities of Practice

During the burgeoning of the Internet, virtual or online communities were quickly recognized as both widely popular and potentially powerful tools for learning (Teo et al., 2003). Teo and colleagues state that online communities feature "shared goals and ideals, some degree of stability, growth, loyalty and commitment by their members" (p. 673). Not all online communities are learning communities, as communities can be primarily about building social relationships, but because they are frequently formed around a particular interest, they tend to

involve at least some degree of knowledge-sharing. When an online community is united around a learning goal, it looks very much like a community of practice.

Wenger's (2000) theory was developed based on face-to-face learning communities, and there has been considerable interest in applying the framework to online learning communities. This research consists mainly of case studies with varying depth of analysis, but researchers tend to agree that an online community can function as a community of practice (Gray, 2004; Johnson, 2001; Rogers, 2000). In fact, online communities of practice have some advantages over face-to-face communities. In addition to eliminating geographical boundaries and the emphasis on location (because online communities are entirely based on the idea or task and not on a shared place), online communities can reduce the influence of norms based on people's physical presence, such as someone's voice or posture (Ardichvili, Maurer, Li, Wentling, & Stuedemann, 2006; Johnson, 2001). Organizations, particularly those that are geographically dispersed, have embraced the idea of online communities, but creating a community is not just a matter of creating the virtual infrastructure. If a community lacks voluntary engagement in knowledge-sharing, it is not a community of practice. Accordingly, research on online learning communities has focused heavily on studying knowledge-sharing behavior.

Increasing Knowledge-Sharing in Online Communities

Online communities typically take the form of members posting questions or problems and responding to others' posts with what is thought to be relevant information. Although reading without posting is considered a valid way to participate in a community, there is a lack of research on this type of use; many studies examine posting activity only. Researchers have theorized at length about which factors are likely to influence the quantity and quality of

members' posts, but the following discussion includes only factors that have been empirically tested.

Perhaps the most common examined factor is sense of community. Members are more likely to share knowledge when they have social ties in the community, when community social norms support posting and create the expectation of reciprocity, and when they generally feel like they belong to and identify with the community (Chen, Chen, & Kinshuk, 2009; Chiu et al., 2006; Gray, 2004; Koh, Kim, Butler, & Bock, 2007; Wenger, 2000). In a survey of members in one community, Chiu and colleagues (2006) found that people primarily posted for the sake of helping the community rather than for a direct sense of benefiting themselves.

Knowledge-sharing depends on trust in the community. Members are more likely to post when they sense that others in the community are honest, reliable, and benevolent (Ardichvili et al., 2006; Johnson, 2001; Usoro, Sharratt, Tsui, & Shekhar, 2007). Usoro and colleagues (2007) found that perceived integrity of the community most strongly predicted sharing in the organization they studied. Sharing knowledge makes one vulnerable to criticism, and members who are afraid of being negatively judged are unlikely to post. Some members may also be concerned about the permanence of the messages, increasing the need for community trust (Johnson, 2001).

Most researchers suggest that perceived usefulness of content or trust in the competence of community members is an important factor (Sharratt & Usoro, 2003; Gray, 2004; Johnson, 2001; Koh et al., 2007). Because usefulness should be the central reason for participating in the community, this seems like a reasonable assumption, but most of the studies reviewed did not directly examine this. Koh and colleagues (2007) found that perceived usefulness predicted post-reading rather than post-writing.

Another frequently listed factor is the ease of using the technological system (Gray, 2004; Johnson, 2001; Koh et al., 2007; Sharratt & Usoro, 2003, Song & Hill, 2007). In those studies conducted in the early 2000s, technological limitations sometimes created considerable barriers to posting. Given the developments in social media, one might expect that these barriers have been substantially lessened, but it is still worthwhile to evaluate the user-friendliness of the community's tools, especially when members have varying levels of technical skill.

Some researchers identify the importance of leadership or facilitation within the community (Gray, 2004; Johnson, 2001; Wenger, 2000). Both Gray (2004) and Johnson (2001) found skillful moderation to be necessary to support learners, but this was not an unanimous factor. Although communities of practice presumably have core members who may take on leadership roles, it is unclear whether all online communities have designated facilitators.

Elements of the organizational cultural outside of the online community also affect knowledge-sharing. Organizations that are less rigidly hierarchical are more likely to see knowledge-sharing in online communities (Ardichvili et al., 2006). When organizational structures are strongly centralized, workers are more likely to believe that knowledge should come from the top down and that knowledge-sharing could be perceived as violating the hierarchy. Similarly, members are more likely to post if they have a clear sense that participation is valued by their organization, either abstractly or based on incentives (Ardichvili et al., 2006; Chiu et al., 2006).

Facilitating Informal Learning

Encouraging Informal Learning in Organizations

Wenger (2000) sums up the interest in informal workplace learning aptly when he states that in a knowledge economy, "[t]he primary source of value creation lies in informal processes"

(p. 244). However, the ubiquity of informal learning does not imply that informal learning is always effective or even successful; workers do not always have the skills needed (Livingstone, 1999; Marsick & Volpe, 1999). Marsick and colleagues (1999) emphasized the need for critical reflection, stressing that without reflecting on their beliefs and assumptions, workers can become stuck in an incorrect framing of a problem. Their suggestions for facilitating informal learning focused on helping workers become more intentional about their learning. Organizations should give workers space to observe changes, experiment, collaborate, and think inductively. One major problem they identify is that organizational leadership may not be ready for the “heightened conflict” (p. 93) that can come from encouraging workers to question organizational practices and beliefs.

In general, organizations that prioritize innovation and problem-solving throughout their levels and demand frequent learning from workers – so-called learning organizations – create environments that help workers to become more self-directed (Confessore & Kops, 1998). Some examples of features associated with learning organizations can be found in Skule’s (2004) survey of informal learning by Norwegian workers: frequent changes, high levels of demand, decision-making responsibilities, professional networking and collaboration, high quality feedback, a sense that management supports learning, and performance incentives.

Finally, communities of practice are a major way to improve self-directed learning ability. Although initial membership requires some degree of self-direction, once members join a community, as Johnson (2001) describes, “a culture of learning is promoted, which requires a community goal of learning, stressing ways of learning how to learn, and developing ways of sharing this knowledge” (p. 48).

Creating Sustainable Online Communities

Wenger and Snyder (2000) acknowledge that it is not easy to build and sustain a community of practice. Communities of practice are spontaneously formed and fueled by the passion of their members. This spirit is lost when organizations mandate participation. Some organizations that have tried to create online communities have undoubtedly been disappointed in their failure to take off. Johnson explains the problem well in stating, "the best one can do is to set up a design (e.g., a virtual community) and hope the emerging community of practice can achieve its goals of learning and growth within and around it" (p 53).

Although the success of the community is largely in the hands of its members, organizations can encourage and support their use less intrusively. Organizations can help by identifying potential communities of practice and creating an infrastructure in which they are legitimized and valued (Boud & Middleton, 2003; Wenger & Synder, 2000). Knowledge-sharing can be linked to career advancement. Some researchers suggest explicit incentives (Chiu et al., 2006), but doing so risks altering members' motivation in ways that may be detrimental to the community. Less incentive-based recognition may be effective: if participants feel that they can demonstrate their worth to the organization through sharing, they will be less likely to hoard their knowledge. This also requires reducing competition between workers (Ardichvili et al., 2006). Many elements of community culture (social connectedness, trust, shared values) are directly influenced by organizational culture, so any improvements to this culture are likely to improve community engagement as well.

Organizations can also appoint expert-members to act as community moderators. In her study of an online community in which she was the moderator of the community, Gray (2003) concluded that, "[k]ey characteristics of a moderator include technical competence, an understanding of community-building and developing social connections, a learning orientation,

and sufficient knowledge of the practice itself to demonstrate credibility" (p. 33). Johnson (2001) similarly found good facilitation to be crucial for keeping members actively posting and to support learners with less technical skill. The reliance on text-based communication greatly increases the potential for misunderstanding, something a savvy moderator can help to mitigate.

Conclusions and Future Research

Although workers already do most of their learning on the job, if organizations continue to raise their expectations for continual learning, they will also have to increase their efforts to support informal and self-directed learning. This means establishing a culture where creativity towards problem solving, critical reflection, and knowledge-sharing are clearly encouraged, but it may also require intervention to help learners develop the skills to be self-directed. One way organizations can accomplish these goals is by helping workers to form communities of practice. Online communities of practice can make collaboration more feasible within large organizations or between geographically dispersed workers.

There are inherent challenges to studying informal learning (Eraut, 2004). Research must rely heavily on self-report despite the fact that learners may not be able to recognize or adequately describe most of their informal learning. There is no shortage of descriptive research, but much of this research stops short of making concrete prescriptions. There is also abundant research examining participation in online learning communities, although as Gray (2004) mentions, the context is frequently higher education. Some of the issues identified by this research probably apply to informal learning, but others do not. For example, in formal online learning, participation is usually mandatory and part of the assessment, inflating the rate of posting but potentially decreasing the quality in a way unlikely to be seen in a voluntary community.

A full understanding informal workplace learning using the Internet would involve investigations into topics beyond the scope of this paper, including a broader consideration of social media tools for knowledge sharing, knowledge crowdsourcing, and knowledge management. This analysis serves only as a starting point for understanding the challenges of optimizing informal workplace learning in the digital age.

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