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# Learning "beyond the classroom" within an enterprise social network system

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ABSTRACT

This case study examines how students in a higher education program used an enterprise social network system (ESN) to engage in learning activities within its community. We explain how ESNs fit within the Web 2.0 landscape and describe how the program used an ESN to form its learning ecology. The community of inquiry framework is applied to analyze dialogue from the informal learning spaces of the system. Results show that a majority of students participated in learning activities within these public, non-mandatory spaces "beyond the classroom." We also found high levels of cognitive and learning presence in their posts. This study suggests that students practice self-regulated learning in ESN informal learning spaces, raising new possibilities for future development of online learning ecologies.



## 1. Introduction

Web 2.0 technologies, defined by their facilitation of collaborative, user-generated content, have transformed instructional design theory and practice in education (Greenhow, Robelia, & Hughes, 2009; Huang, Hood, & Yoo, 2013; Tess, 2013). Greenhow et al. (2009) identified four defining Web 2.0 affordances, centered around the user's ability to create: 1) their own multimedia content, 2) links with other users to share content, 3) customized personal profiles, and 4) interfaces with other Web services. By many accounts, these technologies offer opportunities for innovation in education by promoting self-directed learning, creativity, and collective intelligence (Arquero & Romero-Frías, 2013; Greenhow et al., 2009; Gunawardena et al., 2009). The promise of enhanced learning is amplified by reports urging educators to prepare students for the digital environments in which they will live and work (McLoughlin & Lee, 2010; U.S. Department of Education Office of Educational Technology, 2010). College students today undoubtedly are familiar with Web 2.0 technologies for personal and learning purposes. A recent Pew Research Center survey (Fox & Rainie, 2014) noted the widespread impact the Web has had on U.S. society, with 87% of American adults using the internet and 39% of them reporting it is essential for their livelihood. However, researchers also point out that higher education institutions have been slow to catch up to the now common practice of learning-on-demand that is increasingly informal and self-directed online; instead they primarily continue to use formal course management systems that keep the students inside of closed, formal learning spaces (Dabbagh & Kitsantas, 2012; McLoughlin & Lee, 2010; Selwyn, 2012). As higher education programs integrate new Web 2.0 technologies into their instructional designs, there is growing demand for research that addresses questions about how to align the needs of students and faculty with these technologies while improving our understanding about how it impacts learning (European Union, 2013; Greenhow et al., 2009; Tess, 2013; Wang & Chiu, 2011; Woo, Chu, Ho, & Li, 2011). Of particular interest is the nature of learner participation in online social spaces. Our research explores these issues by examining student participation and learning within one type of Web 2.0 system, an enterprise social network system (ESN), used by a graduate program to foster student engagement and learning. The ESN described in the case study is a commercial system commonly used for multi-purpose organizational collaboration and knowledge sharing. It was not specifically designed to facilitate learning in higher education, so we describe how the program staff configured the ESN to achieve overall program learning goals and how participants actually used it. Unlike previous studies that examined the use of Web 2.0 tools *within* formal class environments (Arquero & Romero-Frías, 2013; Churchill, 2009; Shea et al., 2012; Woo et al., 2011), our study focuses on the informal learning spaces that can be created in ESNs to build a learning community "beyond the classroom," fostering practical inquiry and reflection outside of the formal class environments.

We begin with a review of the Web 2.0 literature, concentrating on the research related to the use of Web 2.0 tools to create learning ecologies, how ESNs fit within the Web 2.0 landscape, and what it means to create online formal and informal learning spaces within ESNs. We then

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present a case study that shows how students used the informal learning spaces existing within a graduate program's ESN. We apply the Community of Inquiry (CoI) framework to analyze the online dialogue that occurred in these spaces in order to differentiate between social, teaching and learning activities. This study contributes to the literature by demonstrating how Web 2.0 tools can be integrated to expand the learning ecologies made available to students, so they can practice self-directed learning and benefit from informal learning-on-demand in a higher education context.

## 2. Web 2.0 learning ecologies

The concepts of learning ecologies (e.g., Greenhow et al., 2009) and learning communities (e.g., Gunawardena et al., 2009) situate learning in a social context that recognizes that learners are simultaneously involved in multiple learning settings. In higher education, this may include multiple courses, formal and informal contexts across the institution, and settings at work, community and home. A learning ecology is a collection of contexts—physical and virtual—that provides opportunities for learning (Barron, 2006). These ideas build upon earlier concepts such as communities of practice (Wenger, 1998, 2010), defined as social communities in which the learning component (in particular learning in informal and emergent contexts) is central. Thus, a learning ecology is a useful frame for understanding the Web 2.0 learning environments that can be created with ESNs, which provide the capability to similarly engage learners across multiple formal and informal settings.

In addition to learning ecologies, we draw from three lines of research into the social, educational and technological elements of online learning environments. The Community of Inquiry (CoI) framework (Garrison, 2007, 2011; Garrison, Anderson, & Archer, 2000) identifies social presence, teaching presence and cognitive presence as elements contributing to building an effective online learning community. Computer-supported collaborative learning (CSCL) research focuses on the social, pedagogical and technological elements within online collaborative learning groups (e.g., Gao, Dai, Fan, & Kang, 2010; Kreijns, Kirschner, Jochems, & van Buuren, 2007; Roschelle, 2013). Finally, researchers who study networked learning examine how technology promotes connections between learners, between learners and instructors, and between a learning community and its learning resources (Jones, Ferreday, & Hodgson, 2008; McConnell, Hodgson, & Dirckinck-Holmfeld, 2012). We draw from all of these areas, as well as work specifically exploring the use of Web 2.0 tools in education, to review the research on using Web 2.0 technologies to promote learning. We then focus on the utility of the CoI framework in answering our questions about participation in online informal learning environments.

### 2.1. Web 2.0 features and ESNs

In this section we make distinctions among various social, networked technologies and the terms used to describe them in order to clarify the scope of this study and how it relates to other research. The convention we employ is to use three related terms: Web 2.0, Web 2.0 tools, and enterprise social network systems (ESNs). As a general concept, Web 2.0 foregrounds the social, participative aspects of the web, and its scope includes a variety of internet-based tools for collaborative communication and information sharing (Bower, 2015; Dabbagh & Kitsantas, 2012; Dabbagh & Reo, 2010; Greenhow et al., 2009). In popular use, the term Web 2.0 may be interchangeable with social media or social software (Dabbagh & Kitsantas, 2012) and it includes an expanding array of tools (Bower, 2015). We will use Web 2.0 to refer to the general class of social, participative web tools, and we will refer to the tool type (e.g., blogging) or specific platform (e.g., Facebook) when discussing research that focuses on a narrower scope of Web 2.0 research and applications. Table 1 outlines common Web 2.0 tool types, examples of popular systems, and key defining features.

**Table 1**
Types of tools typically referred to as Web 2.0, specific examples, and their defining features.

| Types of Web 2.0 tools | Platform/application examples | Defining features |
|---|---|---|
| Social networking sites (SNS) | Facebook and LinkedIn | Visible individual profiles and visible lists of network connections/friends. |
| Blogs | Wordpress | Individual self-publishing tools (for text, media or both); published posts include commenting threads. |
| Microblogs | Twitter | Message format for sharing of short pieces of digital content (text, photo, video, links, etc.) |
| Wikis | MediaWiki and PBworks | Multi-author content creation, editing, and content organization; linking across content pages. |
| Social bookmarks/tags | Delicious and Diigo | Sharable bookmarks (links) to resources, organized by descriptive tags. |
| Media sharing tools | YouTube and Flickr | Individual self-publishing and sharing for specific media types (video, photo) |
| Web-based office tools | Google Apps (documents, presentations, calendar) | "Desktop" office applications for sharing or collaborative creation and editing. |
| Enterprise social network system (ESN) | Yammer, Jive | Platform for tight integration of multiple types of Web 2.0 tools into a single private/semi-private network for businesses and organizations |

Outside of educational contexts, Web 2.0 also inspired the term *Enterprise 2.0* (McAfee, 2009), which refers to Web 2.0 tools applied to private or semi-private multi-purpose use in businesses and organizations. Enterprise 2.0 systems, also commonly referred to as enterprise social network systems (ESNs), integrate into a single platform many of the tool types and functions that mimic the publicly available versions of Web 2.0 tools (Leonardi, Huysman, & Steinfield, 2013). It is this class of Enterprise 2.0 system that is the subject for our case study. When referring to the system in our case study, we will use the acronym ESN.

### 2.2. Learning with Web 2.0 technologies

Given the broad and dynamic scope of Web 2.0 technologies, their use within higher education is similarly broad and dynamic. We begin our review of this research where there is relatively more activity, with studies of Web 2.0 tool types. Several types of Web 2.0 tools have been examined for their utility in contributing to collaborative learning within higher education contexts. In part, this is because Web 2.0 technologies are viewed as potentially offering "an enormous push forward" in supporting the social interactions that many researchers believe to be critical for achieving learning outcomes (Kreijns, Kirschner, & Vermeulen, 2013, p. 229). Blogs, wikis or a mix of Web 2.0 tools used as supplemental support in courses foster a shift toward more collaborative inquiry and self-direction (Hemmi, Bayne, & Land, 2009). For example, research suggests that college student blogging as part of course activities can reinforce course learning outside class hours, foster the development of informal learning communities, and generate a sense that students' needs and opinions matter (Churchill, 2009; Harrison, 2011). Microblogs provide utility to support private communication among class members and social interaction for group work (Ebner, Lienhardt, Rohs, & Meyer, 2010). Blooma, Kurian, Chua, Goh, and Lien (2013) looked at system features in the context of an online course and suggested that the social dimension of *micro-collaborations* (i.e., mutual interest and effort to achieve a goal) within a Q&A discussion structure promoted collaborative learning via community building, developing self-identity, and improving relational dynamics, which in turn support learning and improve the cognitive process.

Research also is beginning to explore the conditions in which Web 2.0 tool types are used to identify factors that contribute to sociability and effective collaboration (e.g., Kreijns et al., 2007; Roschelle, 2013). These studies illustrate an attempt to understand the interplay between tool design or affordances and social collaboration, for both general-purpose Web 2.0-tool uses and within a larger formal learning ecosystem. For example, Kreijns et al. (2007) explored the development and application of a sociability scale to foster research that will assess user perceptions of sociability. And, although their research examined tools for general-purpose collaboration outside of an educational environment, Gao et al. (2010) found that social climate factors (i.e., open communication, immediacy, friendliness, security, affective communication) were regarded by users as important to their perceptions of the social software.

#### 2.2.1. Using Facebook for learning purposes

Blogging and wiki tools created for higher education purposes often require students to learn how to use the tool, but using Facebook in higher education presents a different case because of its familiarity and pervasive use as a general-purpose commercial social networking site (SNS). This may contribute to its attractiveness as a learning technology and interest among researchers to study the intersection of Facebook and higher education for a variety of potential uses (Madge, Meek, Wellens, & Hooley, 2009; Manca & Ranieri, 2013). For example, some Facebook research examines its indirect link to learning and education, where Facebook may be seen as a "backstage" environment in which university students can relax, out of view from instructors or university staff, and learn to be university students (Selwyn, 2009). Students also may use it to reflect on the general higher education experience, sharing practical and academic information, discussing academic work, and organizing meetings for group work (Madge et al., 2009). To examine Facebook's direct use for instructional purposes, Manca and Ranieri (2013) conducted a literature search to identify empirical studies investigating Facebook as a learning environment. Their review yielded 23 research efforts between 2008 and 2012, and they identified five main educational uses: facilitating discussions among students; developing multimedia content; sharing resources; exposing students to external resources; and supporting self-managed learning. These authors noted that although the use of Facebook for learning purposes is still relatively new, there is a theme emerging from these studies: students may not be comfortable using Facebook or always willing to adopt it as a tool used for instructional purposes. One explanation drawn from this research is that students may perceive Facebook to be primarily a social tool; and, its merger with classroom life, and the resultant differences in status and authority between students and instructors, may create discomfort (Manca & Ranieri, 2013).

One final research example is provided by a recent study that examined learning on Facebook that was not associated with a formal course. Greenhow, Gibbins, and Menzer (2015) applied a coding scheme designed for formal learning environments to analyze argumentative knowledge construction among high school and college-age individuals who participated on a Facebook site (Hot Dish) used for information sharing, commentary and problem solving about climate change and environmental science issues. A sample of online commentary and discussion on this site was analyzed for the level of individual participation and the presence or absence of specific argument, epistemic and social-construction skills. Results revealed high levels of presence across the three skill sets, suggesting that informal, non-school SNS sites such as Hot Dish offer opportunities for individuals to engage in constructive debate about issues and develop domain-specific literacy.

#### 2.2.2. Using a collection of Web 2.0 tools for learning purposes

An alternative view of Web 2.0 use in higher education shifts the focus from a single platform such as Facebook or Web 2.0 tool types to the capability of individual learners to construct their own personal learning environments (PLEs). PLEs may include a mix of tools, such as blogs, microblogs, social bookmarks, SNSs, and media sharing tools, but the selection and application of tools are guided entirely by the individual learner (Dabbagh & Kitsantas, 2012). PLEs may "be considered as a promising pedagogical approach for the deliberate or intentional integration of formal and informal learning spaces" and supporting self-regulated learning in higher education (Dabbagh & Kitsantas, 2012, p. 4). PLEs share an important attribute with ESNs: both incorporate integration of several Web 2.0 tools. However, differences lie in what (or who) facilitates the integration and in how (or where) individuals are connected with each other. For PLEs, integration and connection is largely dependent on individual agency. For ESNs, the design of the system provides integration and facilitates potential connections between all of its community members.

### 2.3. ESNs as platforms for Web 2.0 tools

ESNs are a new type of commercial Web 2.0 system that has not yet generated much research attention, even in its primary context of workplace enterprises. As defined in Section 2.1, the key feature of an ESN is the *integration* of many Web 2.0 tools into a single, multi-purpose, private or semi-private system (Leonardi et al., 2013). An ESN typically is licensed for use as a completely integrated, feature-rich networking system for an entire enterprise. Information technology professionals and ESN users may customize the system to some extent, but the integration of multiple Web 2.0 features and tools is provided as the system's core functionality. Because of this tight integration into a single system, it makes less sense to distinguish between individual tools and functions (e.g., blogging, social tagging, collaborating), and more sense to think of ESNs as defined by Leonardi et al. (2013):

> Web-based platforms that allow workers to (1) communicate messages with specific coworkers or broadcast messages to everyone in the organization; (2) explicitly indicate or implicitly reveal particular coworkers as communication partners; (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited and sorted by anyone else in the organization at any time of their choosing (p. 19).

To apply this definition to a higher education context, we replace *workers* with *learners* or *community members* to acknowledge all participants in the learning ecology. ESNs thus offer a new option for creating Web 2.0 learning ecologies with potentially unique benefits. They integrate into one system several Web 2.0 tools, an alternative to the selective use of Web 2.0 tool types such as blogs or wikis, or students creating PLEs. They also give educators the ability to create a private network with a clearly defined purpose, an alternative to using Facebook—a system that may be perceived as primarily a "social" system—for educational purposes. Finally, ESNs offer the capability to co-locate, within a single system, discrete spaces for formal learning purposes and for informal learning purposes. We address this capability in more detail in the following section.

### 2.4. Formal vs. informal online learning spaces

To clarify our use of *space* and the distinction we make between *formal* and *informal* as it relates to learning, we briefly review the literature that may pertain to understanding these concepts within online learning environments. There has been debate about the validity of separating informal learning and formal learning into distinct constructs, given that attributes of both are typically intermingled and the boundaries between the two often are blurred (Hall, 2009; Hodkinson, 2010; Mason & Rennie, 2007). However, within ESNs, there are distinctions that can be made and it is useful to define what we mean by these terms.

Formal learning is generally defined as learning that is sponsored by an institution, is planned and organized by teachers, is made up of specified learning tasks, and generally leads to a degree or other certification (Beddie & Halliday-Wynes, 2010; Dabbagh & Kitsantas, 2012; Hall, 2009; Hodkinson, 2010). The concept of informal learning is contested, but for our purposes we borrow from studies that define it as learning that is initiated and led by the learner, generally takes place outside of a formal class setting, and is relatively unstructured (Beddie & Halliday-Wynes, 2010; Dabbagh & Kitsantas, 2012; Hall, 2009; Jeffs, 2010; Sackey, Nguyen, & Grabill, 2015). While many definitions of informal learning state that the learning happens outside of spaces sponsored by educational institutions, Jeffs (2010) acknowledges that informal learning can exist in places where students congregate before and after formal class sessions, such as corridors and dining halls.

Research supports the value of looking at the interplay of formal and informal learning spaces in online learning environments. For example, learning is found to be most effective when informal and formal learning coexist and a variety of learning practices are followed within more flexible learning ecosystems that allow learners to build on and extend their formal learning, increasing personal agency in the learning process (Dabbagh & Kitsantas, 2012; Hall, 2009; Selwyn, 2012). These studies suggest that, when students are able to develop personal learning environments (PLEs) using Web 2.0 technologies outside of the formal course management system and teacher-designed content, there is the possibility for the community of classmates, teachers, alumni, experts and other professionals to become the curriculum. Within a larger community, students can "aggregate and share resources, participate in collective knowledge generation, and manage their own meaning making" (Dabbagh & Kitsantas, 2012, p. 4).

In a setting very similar to our case environment – informal learning spaces set within an institutionally sponsored online community that also includes formal learning spaces – Suthers and Chu (2012) found evidence that members of the community engaged in informal learning activities and gained value from those activities. The online environment analyzed by the authors was not a commercially-licensed ESN, but was designed and developed specifically for use as a learning community where members had opportunities to connect and share with each other. Members were given access to a common online space outside of the formal task-specific spaces that formed the core purpose of the online environment. The research objective was to examine the *transcendent communities* that emerged and analyze the extent to which system users accessed digital artifacts (i.e., discussions, resources, user profiles, wiki pages). The authors found evidence that members benefited from accessing resources from others outside of their workspaces, lending support to the idea that properly designed social technologies can increase the potential for members to expand their networks beyond typical boundaries and receive something of value from doing so.

#### 2.4.1. Formal and informal learning spaces within ESNs

The case study presented in this article is novel in exploring how a graduate program used an ESN to create a Web 2.0 learning ecology. Because ESNs can co-locate discrete spaces for formal and informal learning, we briefly describe what these spaces may look like when constructed in a higher education setting. Similar to using online courses in traditional course management systems to support formal learning, programs can use ESNs to create formal class groups that are facilitated by instructors and teaching assistants for specific course purposes. Membership in these ESN class groups can be restricted to the instructional team and the students who are registered for the class. Most of the activity in these class groups would be the result of required assignments that are assessed and contribute to the students' grades in the class, such as blog reflection posts or responses to discussion questions posed by the instructors.

Similar to Jeffs (2010) description of informal learning in brick-and-mortar educational institutions, spaces within ESNs can be created to allow for interactions and dialogue that is non-mandatory, not part of formal team or work efforts, and not formally evaluated. Interactions among community members in these online informal learning spaces can range from brief social or transactional exchanges to longer conversations and dialogue. Within ESNs, such dialogue may occur in personal blogs and public groups formed around topics of shared interest. Some of what happens in these spaces can be purely social, such as sharing photos of weddings, babies or pets, while other activity can be classified as self-regulated learning, such as asking for help with a professional project or sharing a point-of-view about a topic of interest with the community. The ESN described in our case study supports multiple purposes: administrative information sharing, content management for formal learning activities, and providing spaces for informal learning. These informal learning spaces – parts of the system to which all community members have free and open access – are analogous to the bricks-and-mortar example of corridors and dining halls, where interactions can range from small talk to dialogue. We focus our analyses on the informal learning spaces and more specifically on the dialogue that occurs within these spaces.

### 2.5. Learning communities through the lens of CoI

To understand the nature of dialogue in informal learning spaces, we turn to the literature on the Community of Inquiry (CoI) framework (Garrison, 2007, 2011; Garrison et al., 2000). For more than a decade, scholars have used the CoI framework to examine the elements of online instruction that support learning, resulting in a set of research instruments tested for their validity and reliability in measuring these elements. Although recent research suggests that this framework may improve by expanding the CoI dimensions to include more self-regulated learning activities that may occur in collaborative environments (e.g., Shea et al., 2010; Shea et al., 2014; Shea & Bidjerano, 2012), most studies focus on the cognitive, social and teaching elements of this framework and account for student learning activities by integrating them into the original framework (Akyol & Garrison, 2011; Garrison, 2011; Garrison, Anderson, & Archer, 2010). Table 2 shows the CoI elements, their categories and indicators that are used to study this framework. Each element is briefly described below.

Cognitive presence is the element that represents the phases of practical inquiry, adopted from Dewey's (1933) practical inquiry model. Garrison et al. (2000) describe it as, "a vital element in critical thinking, a process and outcome that is frequently presented as the ostensible goal of all higher education" (p. 89). The four categories of cognitive

**Table 2**
Garrison et al.'s (2000, 2006) Community of inquiry framework and coding scheme.

| Element/dimension | Categories | Indicators |
|---|---|---|
| Cognitive presence (practical inquiry) | Triggering event | Recognize problem |
| | | Puzzlement |
| | Exploration | Divergence |
| | | Information exchange |
| | | Suggestions |
| | | Brainstorming |
| | Integration | Convergence |
| | | Synthesis/connecting ideas |
| | | Solutions |
| | Resolution | Apply new ideas |
| | | Test |
| | | Defend |
| Social presence | Affective | Use of emoticons |
| | | Expressing emotions |
| | Cohesion | Encouraging collaboration |
| | | Helping |
| | | Supporting |
| | Open communication | Risk-free expression |
| Teaching presence | Design and organization | Setting curriculum and methods |
| | Facilitating discourse | Sharing personal meaning |
| | Direct instruction | Focusing discussion |

presence include *triggering event* (e.g., a sense of puzzlement or recognition of a problem), *exploration* (e.g., sharing information or brainstorming ideas), *integration* (e.g., making connections between ideas or formulating solutions) and *resolution* (e.g., testing or applying ideas). Examining learning spaces using the cognitive presence categories, particularly *integration* and *resolution*, allows researchers to determine whether posts contain evidence of practical inquiry and deeper levels of learning.

Social presence in an online course is suggested to be instrumental in setting conditions for learning because it creates a supportive environment to engage in critical thinking and fosters interactions that are richer, more enjoyable and intrinsically rewarding (Anderson, Archer, Garrison, & Rourke, 2001; Garrison, 2007; Rourke, Anderson, Garrison, & Archer, 1999). Though the impact of social presence on learning is debated (e.g., (Gorsky, Caspi, & Blau, 2012), Web 2.0 technology has evolved to allow for easier expression of emotions and social cues that can make online discussions more personal and appealing. Social presence categories may be reflected in *affective* (expression of emotion), *cohesion* (collaboration and helping), and *open communication* (risk-free expression) content.

Teaching presence is represented by the *design and organization* (e.g. setting curriculum), *facilitating discourse* (e.g., sharing meaning and sense-making), and *direct instruction* (e.g., guiding discussions) actions typically led by a teacher, but the CoI framework proposes that others in the community can initiate these tasks as well (Anderson et al., 2001; Garrison, 2007, 2011; Garrison et al., 2000). Some researchers suggest that without this "binding element," a critical community of inquiry cannot be established (Garrison et al., 2000, p. 96).

Prior empirical research using the CoI framework has focused on analyzing formal learning communities. Applying the CoI framework to explore the nature of community member participation in the informal learning spaces of ESNs provides an approach for not only analyzing the elements that may facilitate learning (i.e., social and teaching presence) but also for analyzing the extent to which learning (i.e., cognitive presence) actually occurs in these spaces. Coding for teaching presence in informal learning spaces, which are not instructor-led or connected to a specific course, may help researchers understand whether teaching presence is a binding element in this part of the learning ecology.

## 3. Case analysis

In this section we describe how a graduate program used an ESN to foster learning and engagement among its community members (i.e., students, alumni, staff and instructors), and we report our analyses of the participation and online content submitted by members in the informal learning spaces. We focus here on the informal learning spaces (as defined in Section 2.4.) because members were not required to use them and less is known about the activities that occur in these types of spaces. Our two specific research questions are:

1) How much participation occurs in the informal learning spaces of the ESN?

2) What type of participation occurs in the informal learning spaces of the ESN—more specifically, is there evidence of learning in these spaces?

### 3.1. Background

The Northwestern University graduate program providing the case is the Master of Science in Learning and Organizational Change (MSLOC) program, which offers traditional evening format courses and blended learning courses that combine some face-to-face and technology-mediated instruction. Table 3 shows the demographics for the program community members using the ESN during the 2013–2014 study period. During this time, 63% percent of the course registrations were for evening-format classes (meeting in person for three hours, once per week over the 10-week quarter) whereas 37% of registrations were for blended *alternative schedule* format courses that required online instruction throughout the quarter with a mid-quarter, 2.5-day in-person class session.

The program participants are primarily distributed across the United States, not entirely "virtual" in that many members meet face-to-face at some point during their time in the program, and the majority of students are female. The educational context of the program is highly collaborative (many group learning assignments) and not particularly competitive. In this program, the technology only partially mediates the educational and social contexts.

**Table 3**
Hive community member demographics.

| | Total members | | Students | | Alumni | | Part-time faculty | | Full-time faculty | | Staff | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| *Gender* | | | | | | | | | | | | |
| Male | 37 | (23%) | 25 | (23%) | 4 | (14%) | 6 | (26%) | 2 | (67%) | 0 | |
| Female | 127 | (77%) | 82 | (77%) | 24 | (86%) | 17 | (74%) | 1 | (33%) | 3 | (100%) |
| *Location* | | | | | | | | | | | | |
| Local | 114 | (70%) | 71 | (66%) | 16 | (57%) | 21 | (91%) | 3 | (100%) | 3 | (100%) |
| Non-local | 50 | (30%) | 36 | (34%) | 12 | (43%) | 2 | (9%) | 0 | | 0 | |
| *Age* | | | | | | | | | | | | |
| 20–29 | 25 | (15%) | 22 | (21%) | 2 | (7%) | 0 | | 0 | | 1 | (33%) |
| 30–39 | 70 | (43%) | 58 | (54%) | 8 | (29%) | 3 | (13%) | 1 | (33%) | 0 | |
| 40–49 | 40 | (24%) | 14 | (13%) | 11 | (39%) | 13 | (57%) | 1 | (33%) | 1 | (33%) |
| 50–59 | 22 | (13%) | 9 | (8%) | 7 | (25%) | 4 | (17%) | 1 | (33%) | 1 | (33%) |
| 60–69 | 6 | (4%) | 3 | (3%) | 0 | | 3 | (13%) | 0 | | 0 | |
| *Race/ethnicity* | | | | | | | | | | | | |
| U.S. resident | 152 | (93%) | 98 | (92%) | 25 | (89%) | 23 | (100%) | 3 | (100%) | 3 | (100%) |
| White | 134 | (88%) | 85 | (87%) | 22 | (88%) | 21 | (91%) | 3 | (100%) | 3 | (100%) |
| Black | 6 | (4%) | 4 | (4%) | 1 | (4%) | 1 | (4%) | 0 | | 0 | |
| Asian | 9 | (6%) | 7 | (7%) | 1 | (4%) | 1 | (4%) | 0 | | 0 | |
| Hispanic/Latino | 3 | (2%) | 2 | (2%) | 1 | (4%) | 0 | | 0 | | 0 | |
| Foreign national | 12 | (8%) | 9 | (9%) | 3 | (12%) | 0 | | 0 | | 0 | |
| *Student type* | | | | | | | | | | | | |
| Full-time | | | 14 | (13%) | | | | | | | | |
| Part-time | | | 93 | (87%) | | | | | | | | |

Regardless of the format, all courses use the ESN (referred to as "The Hive") for communication and sharing course content. Implemented in September 2012, The Hive is an online learning community powered by Jive Software's cloud *software as a service* (SaaS) ESN platform. No customization, technical resources or development was necessary to create The Hive, which employed the standard Jive Software features including status updates, blogs, discussions, documents, comments/replies, private and open groups, activity streams, and comprehensive user profiles. A program staff member, a coauthor of this paper who also served as the Hive community manager, modified the user interface (e.g. drop-down menu names and options, community logo and color scheme, home page content) to fit the program's design objectives. The system replaced applications including Ning, a Wiki, and Google Sites that had been previously used to achieve similar goals, and it replaced most functions of the Blackboard learning management system except for the gradebook and some assignment features.

Upon admission to the program, students are required to establish a system personal profile (customized to share background, interests, and optional personal information) and complete an orientation to familiarize themselves with system navigation and organization. This ESN is designed to support administrative information sharing (e.g., registration procedures, program events, student services), content management for formal learning activities (e.g., course-related materials, links to course reserves, private groups for class discussions), and informal learning spaces (e.g., individual blogs, forums for specific communities of practice within the program, a "Water Cooler" for general community dialogue). Fig. 1 shows the organization of this system, with the informal learning spaces (shaded) providing opportunities for non-mandatory self-directed learning. We focus on these areas in part because of the system's unique affordances to support informal learning, as described earlier. The program's intent behind the system design is to facilitate learning beyond the classroom, foster dialogue between students who may be taking different courses at different times, and strengthen the program learning community; however, it is important to note that the system supports key administrative activities and formal class group activities, which also drives member use of the ESN.

The ESN's informal learning spaces can be seen as analogous to the bricks-and-mortar example of corridors and dining halls noted earlier. They are the parts of the system to which all community members have free and open access for a variety of interactions of their choosing. However, the system also is designed to foster informal learning through the use of special community groups that are open for anyone in the program to join if they have an interest in the community topic. For example, an Organizational and Leadership Coaching community group was created to share resources and facilitate discussions about organizational and leadership coaching. It is not connected to any specific class. Rather, it is a place where students can develop their knowledge about coaching and connect with other students interested in coaching. Often these groups are part open-dialogue and part community forums for the students to more openly share their insights from their course work. But whether the structure that supports member interaction is a community group or something more akin to corridors and dining halls, a defining element of the case study ESN informal learning spaces is they are *public* to all community members. In contrast, other spaces of the ESN – such as class groups intended to support formal class sections – restrict access and are *private* to select community members. To examine what type of participation occurs and whether learning actually takes place in these public informal learning spaces, we collected a sample of data from the system.

### 3.2. Sample

We sampled content submitted to the public informal learning spaces by all members between June 11, 2013 and June 10, 2014. First, because the ESN informal learning spaces were unrestricted in the type of content that could be shared by community members, the public posts were sorted according to whether they appeared to be transactional, personal updates or administrative in nature, or whether they potentially contained dialogue that could be analyzed for evidence of learning. Of the 1000 public posts during that period, 287 were identified for further analysis because they potentially included content and dialogue beyond a purely transactional or personal message, event announcement, or program administration post (e.g., reminder about student services). Our procedures in Section 3.3 explain how we further narrowed this sample to conduct a content analysis. Table 4 reports the distribution of the 287 posts by the type of content along with the definition of the post type.

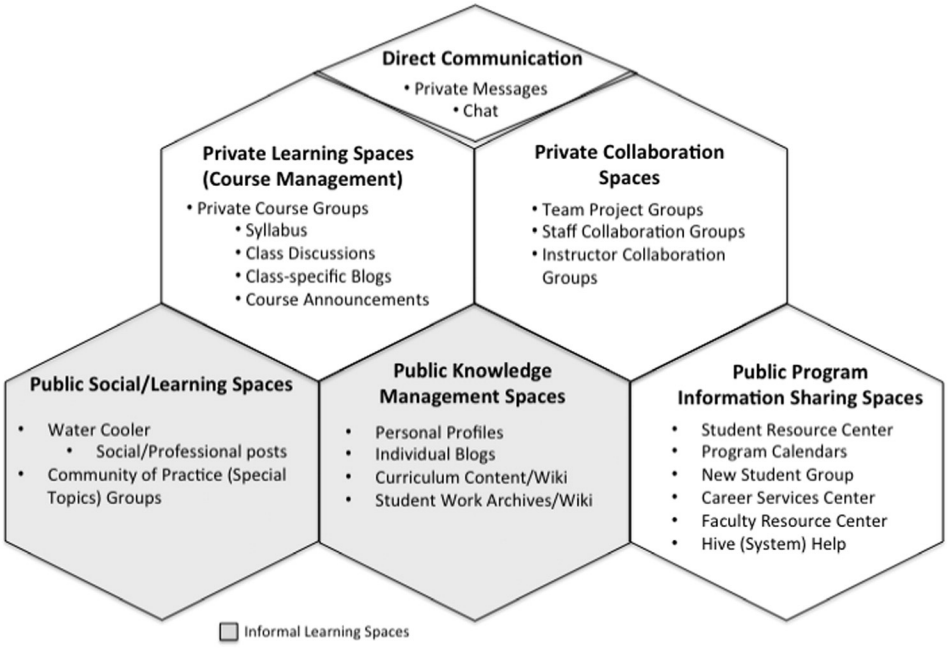


**Fig. 1.** Organization and structure of The Hive.

**Table 4**
Post frequency by type of post within the informal learning spaces.

| Data type | Definition | Number of posts |
|---|---|---|
| Blog post | Typically used for sharing a personal point of view or reflection about a topic | 47 |
| Discussion post | Used to ask questions, solicit feedback and share content of interest to the community | 44 |
| Poll | Used to ask a question with particular answer choices | 1 |
| Document | Page created to share information that typically does not warrant replies, although a user is able to comment on a document | 2 |
| Status update | Status updates are short (1–3 sentence) posts used for a variety of purposes, including to share personal news, to make announcements, to share links to online content of interest, or to ask questions | 193[a] |

[a] Content analysis using the CoI framework was not applied to the status updates, but these messages were posted in the public, informal learning spaces.

### 3.3. Procedures

A case study approach was used to explore both quantitative data, the levels of participation recorded by the system, and qualitative data, the content of the actual posts made within the system. We chose this methodology to provide a holistic view of how participants used an ESN to facilitate learning in a higher education program context, which is a unique application of this technology. We sought approval from the university's Institutional Review Board and it was determined that this study did not require review because it did not engage human subjects or experimental methods.

Posts in our sample are discreet units of several types, as outlined in Table 4. Individual comments or replies to these posts are part of a larger discussion post or "thread." For example, a discussion post may have dozens of replies, and a blog post may have many comments. Of the 287 posts that we identified as potentially having content that reflected informal learning dialogue, 193 were status updates, which we decided not to analyze beyond noting that status updates are being used in the system for some level of engagement. Status updates were excluded from the content analysis because these posts are limited in length and typically consist of a short statement and/or hyperlink to other sources. Generally, the status updates have fewer comments than blog and discussion posts, and they often are used to simply share content that is found on the web that may be of interest to the community, so we decided not to focus on this type of post for our study. Also excluded were transactional exchanges related to program administration or announcements (e.g., an event announcement which generates replies related to attendance). Using these criteria, we narrowed our sample for content analysis to 94 posts, which include blog posts, discussions, documents and polls. The 94 posts that were analyzed generated a total of 865 messages. The analyzed posts have an average of 8.2 replies, ranging from 0 to 52 replies.

A quantitative content analysis technique was used to code content from our sample. This technique presents several methodological choices for coding, and we followed the procedures used by researchers who adopted this technique for similar studies (Anderson et al., 2001; Garrison et al., 2000; Garrison, Cleveland-Innes, Koole, & Kappelman, 2006; Gorsky & Blau, 2009; Gorsky et al., 2012). First, we selected the "message" unit of analysis to apply our coding scheme. In our environment a message unit is the result of a single user completing the action to submit a communication into the system (i.e., clicking "post" or "reply"). Message units vary in length and complexity. Some are multiple paragraphs while others may be a sentence or two, or comprised of a single sentence fragment. Regardless of length, the entire message was coded for the presence or absence of a characteristic. For our purposes, message units are clearly demarcated and facilitate consistent identification for coding. Because of the user action required to create the message, the message unit also represents a user-defined communication unit.

#### 3.3.1. Developing our coding scheme

We began by testing the reliability of our coding scheme, with all three authors analyzing messages for the presence of the CoI categories using the original framework (Garrison, 2011; Garrison et al., 2000; Garrison & Arbaugh, 2007) shown in Table 2. Following procedures employed in previous research (Garrison et al., 2000, 2006; Gorsky & Blau, 2009; Gorsky et al., 2012), we coded at the message unit of analysis using the category indicators to help identify messages that could be analyzed at the category level for teaching, social, and cognitive presence. If a message contained any content that reflected the category, the category was coded as "present" (receiving a code of "1") regardless of its length or depth of content. However, we quickly found that the messages in the informal learning spaces could not be reliably coded for teaching presence. For example, the absence of assigned teaching roles (e.g., no designated instructors or teaching assistants) and course learning objectives (e.g., no syllabus, shared instructional goals, or expectations for learning specific content) made it difficult to decide whether some community members were attempting to facilitate discussions and guide meaning-making or whether they were engaging in *exploration* and *integration* with their colleagues. In addition to the difficulty we had coding student posts for teaching presence, there were many instances where students engaged in collaborative learning activities not easily fitting into the original CoI framework. For example, students made specific requests for help or information, shared opinions, and reflected on their experiences in ways that did not seem to fit into the cognitive presence (practical inquiry) categories. Rather, these posts seemed to show students engaging in micro-collaborations and self-regulated learning activities.

We reviewed additional empirical studies published by Shea and his colleagues (Shea et al., 2014; Shea et al., 2010; Shea & Bidjerano, 2012; Shea, Hayes, & Vickers, 2010), who encountered similar difficulties with the CoI framework in online classrooms. For example, Shea, Hayes, and Vickers (2010) found that the original CoI indicators for teaching presence relied upon threaded discussion posts made by instructors using limited online tools available at that time, making it difficult to apply these indicators to a broader range of teaching activities using Web 2.0 tools. Using their revised teaching presence coding scheme, we updated the teaching presence indicators for *design and organization* (e.g., utilizing the medium effectively, or responding to technical concerns), *facilitating discourse* (e.g., presenting follow-up topics for discussion, refocusing discussion on specific issues, summarizing discussion), and *direct instruction* (e.g., providing valuable analogies, offering useful illustrations, conducting informative demonstrations); and, we added a category for *assessment* that included the indicators of giving formative or summative assessment and soliciting feedback about course design (see Shea et al., 2010; Shea, Hayes, & Vickers, 2010). When an instructor or online community manager initiates these activities with expertise, it presents a clearer case of teaching presence. However, the lack of formal teaching roles and course structure still limited our ability to identify teaching presence when students engaged in collaborative learning and dialogue among their peers. Similar to the conclusions made by Shea, Hayes, & Vickers (2010), such activities of self- and co-regulation "highlight the role of effective learners as distinct from effective teachers" (p. 141).

Their research suggests that the original CoI framework could not adequately explain collaborative online learning activities among students, such as *forethought and planning*, *monitoring*, *strategy use*, and *reflection* (Shea et al., 2012). Shea & Bidjerano (2010) refer to such activities as *learning presence*, which encompasses the metacognitive, motivational, and behavioral traits and strategies that online learners proactively use to direct their own online learning (Shea et al., 2012). Because our sample consists of discussions that took place outside of

structured online classroom environments, instances of learner self-regulation may surface as community members pursue a variety of personal learning and knowledge-sharing goals. Their collaboration is voluntary, and they are solely accountable for their own learning. To be successful in this type of online environment, it seems likely that learners would need to employ a combination of *forethought and planning* (e.g., setting goals, considering approaches to pursue goals), *monitoring* (e.g., checking for understanding, noting completion of tasks), *strategy use* (e.g., seeking help, offering additional information) and *reflection* (e.g., sharing an opinion or change in thinking). Therefore, we adopted into our coding scheme the learning presence categories and indicators defined by Shea and colleagues (2014). Our final list of categories and indicators are shown in Appendix A, along with examples of content from our sample.

Once we established a common understanding of the revised coding scheme by testing initial inter-rater reliability and discussing examples we found in the messages, two raters (the second and third authors) divided the remaining messages between them and coded the messages independently. Upon completion, 9 posts (for a total of 69 messages) were randomly selected and analyzed by the other rater to check for inter-rater reliability. The final Cohen's kappa reached an acceptable level of reliability ($\kappa = 0.81$), with 93% agreement overall.

## 4. Results

The results from our analyses are presented in this section to answer each of the research questions, starting with the question of how much participation occurs in the informal learning spaces of the system, followed by our content analysis to explore the nature of participation that occurs in these spaces.

### 4.1. Levels of participation in informal learning spaces

We used two methods to examine participation levels, first by comparing how much activity occurred in the public, informal learning spaces relative to the private, formal learning spaces in the ESN, and second by examining the frequency of posts created by type of user. Table 5 shows counts for the amount of activity, sorted by the type of space in which it occurred and by the type of post. For example, Table 5 shows that of the 1517 posts created in the online community during the one-year period, a total of 1000 (66%) were public, meaning that they were posted in spaces available to all of the community members, and 517 (34%) were private, meaning that they were posted in course groups or collaboration groups created only for those group members, such as student project teams and staff collaboration groups. Table 5 also shows the distribution of all system content (i.e., blogs, discussion posts, polls, documents, status updates) across the informal and formal (course group) learning spaces. Although more content was created in the private class groups (420 posts, 28%) compared to the self-regulated dialogue in the public informal learning spaces (287 posts, 19%), content creation in these public spaces went beyond a purely transactional or informational nature and may contain evidence of practical inquiry. Additionally, 14% of the comments made during this period were made on posts that potentially contained informal learning dialogue, suggesting that members engaged in these interactions even though it was not a required part of the curriculum.

#### 4.1.1. Activity within public vs. private spaces

Within the public spaces, there are many different types of interactions that may occur. As described in Section 3.2., we sorted posts according to whether they are primarily transactional in nature or whether they contain dialogue that may promote informal learning. The posts identified as containing dialogue appear under the Informal Learning Dialogue (Selected for Content Analysis) columns in Table 5, and they constitute 19% of the total content created. The informal learning activity all happened in the Public Social/Learning Spaces and Public Knowledge Management Spaces as shown in Fig. 1. Some indicators of informal learning activity cannot be analyzed beyond frequency data: there were 9657 views and 791 "likes" of informal learning-related posts, indicating that members engaged with the informal learning

**Table 5**
Public and private system content and activity by type of post.

| | Total | Public informal learning spaces | | | | | | Private formal learning spaces | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Informal learning dialogue (selected for content analysis) | | | | Social and program transactions | | Private course groups (formal learning) | | Collaboration spaces | |
| | | Class-related (not mandatory) | | Not class-related posts | | Social/news, wiki content, services | | Class discussions, assignments, syllabi | | Team projects, course preparation, staff groups | |
| | N | N | % | N | % | N | % | N | % | N | % |
| All Content | 1517 | 40 | (2.6%) | 247 | (16.3%) | 713 | (47.0%) | 420 | (27.7%) | 97 | (6.4%) |
| Comments | 7269 | 341 | (4.7%) | 686 | (9.4%) | 1786 | (24.6%) | 3585 | (49.3%) | 871 | (12.0%) |
| Views | 128,265 | 3539 | (2.8%) | 6118 | (4.8%) | 58,994 | (46.0%) | 50,114 | (39.1%) | 9500 | (7.4%) |
| Likes | 4067 | 134 | (3.3%) | 657 | (16.2%) | 1221 | (30.0%) | 1978 | (48.6%) | 77 | (1.9%) |
| Blog posts | 220 | 34 | (15.5%) | 13 | (5.9%) | 17 | (7.7%) | 155 | (70.5%) | 1 | (0.5%) |
| Comments | 1281 | 224 | (17.4%) | 91 | (7.1%) | 39 | (3.0%) | 911 | (71.0%) | 16 | (1.2%) |
| Views | 14,954 | 2351 | (15.7%) | 982 | (6.6%) | 2170 | (14.5%) | 9396 | (62.8%) | 55 | (0.4%) |
| Likes | 413 | 50 | (33.1%) | 43 | (13.9%) | 31 | (5.1%) | 289 | (47.8%) | 0 | (0.0%) |
| Discussions | 304 | 5 | (1.6%) | 39 | (12.8%) | 81 | (26.9%) | 147 | (48.2%) | 32 | (10.5%) |
| Comments | 3702 | 94 | (2.5%) | 363 | (9.8%) | 459 | (12.4%) | 2347 | (63.3%) | 442 | (11.9%) |
| Views | 31,998 | 997 | (3.1%) | 3944 | (12.3%) | 8057 | (25.2%) | 17,153 | (53.6%) | 1847 | (5.8%) |
| Likes | 2795 | 84 | (3.0%) | 422 | (15.1%) | 549 | (19.6%) | 1667 | (59.6%) | 73 | (2.6%) |
| Polls | 9 | 1 | (11.1%) | 0 | | 7 | (77.8%) | 0 | | 1 | (11.1%) |
| Comments | 49 | 23 | (46.9%) | 0 | | 25 | (51.0%) | 0 | | 1 | (2.0%) |
| Views | 825 | 191 | (23.2%) | 0 | | 594 | (72.0%) | 0 | | 40 | (4.8%) |
| Likes | 1 | 0 | | 0 | | 0 | (0.0%) | 0 | | 1 | (100.0%) |
| Documents | 463 | 0 | | 2 | (0.4%) | 280 | (60.5%) | 118 | (25.5%) | 63 | (13.6%) |
| Comments | 1273 | 0 | | 6 | (0.5%) | 528 | (41.5%) | 327 | (25.7%) | 412 | (32.4%) |
| Views | 76,498 | 0 | | 105 | (0.1%) | 45,270 | (59.2%) | 23,565 | (30.8%) | 7558 | (9.9%) |
| Likes | 111 | 0 | | 0 | (0.0%) | 86 | (77.5%) | 22 | (19.8%) | 3 | (2.7%) |
| Status updates | 521 | 0 | | 193 | (37.0%) | 328 | (63.0%) | Not analyzed | | Not analyzed | |
| Comments | 964 | 0 | | 226 | (23.4%) | 738 | (76.6%) | | | | |
| Views | 3990 | 0 | | 1087 | (27.2%) | 2903 | (72.8%) | | | | |
| Likes | 747 | 0 | | 192 | (25.7%) | 555 | (74.3%) | | | | |

dialogue even when they were not writing responses. Though they may be referred to as "lurkers," community members who view or like a particular piece of content without actually commenting on it are potentially benefiting from it (Yeow, Johnson, & Faraj, 2006). The 713 public posts (47% of overall Hive activity) that were not selected for content analysis were of a purely social nature, such as sharing wedding photos, or they were informational, such as instructions about how to pay tuition. These posts appeared in the Public Social/Learning Spaces and the Public Program Information Sharing Spaces found in Fig. 1.

Within the private spaces of The Hive, there also are different types of activity, some of which happens in Private Learning Spaces (Fig. 1) and can therefore be classified as formal learning (28% of the total content). The remaining 6.4% of the private content was created in student team, instructor team or staff groups designed for formal work/task collaboration (Private Collaboration Spaces from Fig. 1). Because the focus of this study is on learning outside of formal online classroom spaces, we did not conduct additional analyses on this private content.

#### 4.1.2. Levels of participation by community members

To gauge the degree of community engagement in these informal learning spaces, we also examined which community members were creating content. Table 6 shows that of the 164 program members, 77 (47%) generated new posts. Aside from the full-time faculty and staff who shared responsibility for managing the system, students were the most actively engaged group in the informal learning spaces, with the majority of students (55%) creating new posts in these spaces and on average creating 1.8 posts per person during that year. Students were responsible for creating 67% of the posts in these informal spaces, and staff members created 16% of the posts, which included content created by the community manager. The part-time (adjunct) faculty had the lowest participation rate, with only 22% of them engaged in creating posts. Overall, these results suggest active participation in learning beyond the formal course groups.

### 4.2. Type of participation

With our second research question we seek to understand the nature of participation that occurs in these informal learning spaces, and specifically whether learning occurs outside of formal classroom spaces. To answer this question, we use the results of the CoI quantitative content analysis, shown in Table 7. Looking at the occurrence of the four elements (teaching, social, cognitive, and learning presence) relative to the number of messages analyzed, we found that 99% of the messages contain evidence of at least one of these elements. Social presence (SP) appears in most of the messages (90%), and 64% show evidence of cognitive presence (CP), the CoI element representing practical inquiry. Learning presence (LP) also was frequently noted, appearing in 64% of the messages analyzed. Another way to consider the results is to look at the relative distribution of the 3275 coded instances across the four dimensions, since each element can be coded for more than one CoI category. Again, SP occurs most frequently (40%), followed by LP (28%) and CP (26%). Teaching presence (TP) is relatively low (6%), which is consistent with the sample being drawn from the informal learning spaces and with prior research suggesting that TP occurs less frequently than the other elements, even in formal classrooms.

**Table 7**
Frequency and percentage of coded instances and messages by presence.

| Unit | CP | SP | TP | LP |
|---|---|---|---|---|
| Messages coded | 557 (64.39%) | 780 (90.17%) | 146 (16.88%) | 552 (63.82%) |
| Instances coded | 862 (26.32%) | 1292 (39.45%) | 204 (6.23%) | 917 (28.00%) |

$N = 865$ messages; $N = 3275$ instances coded.

The coded categories associated with each of the presence dimensions reveals additional information about the type of dialogue that occurred. Table 8 shows the frequencies and percentages of instances where messages were coded for a category.

The SP category of *open communication* appears most frequently in this sample, with 76% of all messages showing evidence of *open communication* and representing 51% of the coded instances of social presence. The CP category of *exploration* also appears frequently, present in nearly half of the messages and representing 49% of the cognitive presence instances. Another significant finding is that learning presence also appears frequently in these informal spaces. Two-thirds of the messages (64%) show evidence of LP, with *reflection* and *strategy use* contributing 42% and 41% of the coded LP instances respectively. *Strategy use* involves seeking or providing help, information or clarification to others in pursuit of learning. *Reflection* was coded as present when there is evidence of individuals sharing opinions, their understanding of concepts, or thoughts about changes in their thinking. The Appendix A provides message excerpts that are representative of each category.

Though teaching presence appears less frequently (17% of coded messages), there are instances of *direct instruction* (51% of the TP instances) and *facilitating discourse* (41% of instances). To understand who engaged in TP, we sorted the instances by user role. The program has established roles to support community, including an assistant director who serves as the online community manager. Community manager responsibilities include seeding connections and discussion among community members and alerting members to relevant content. Table 9 shows the instances of teaching presence by user type, which includes students, part-time faculty, full-time faculty/staff, and community manager. Full-time faculty and staff provided half of the instances of teaching presence in this sample. The community manager was responsible for another 28% of the TP instances, suggesting that teaching presence in this sample is primarily supported by individuals in formal roles established to support this program's community.

Finally, although all of the messages analyzed in this study were posted to the informal learning spaces (i.e., not including private, formal class spaces), we noted that some of these posts referred to class-related assignments (e.g., a student writes a public blog post rather than creating a private, within-class blog post). To further analyze instances of practical inquiry, we sorted the messages according to whether they are associated with a class or completely unaffiliated with a course. This is a conservative analysis of the unrelated-to-class messages

**Table 6**
Informal learning posts created by user type.

| | All N = 164 | Students N = 107 | Alumni N = 28 | PT faculty N = 23 | FT faculty/staff N = 3 | Staff N = 3 |
|---|---|---|---|---|---|---|
| Created/initiated posts | | | | | | |
| Number of new posts[a,b] | 287 | 193 | 12 | 11 | 23 | 46 |
| Percent of posts | | (67.2%) | (4.2%) | (3.8%) | (8.0%) | (16.0%) |
| Mean per user type | 1.8 | 1.8 | 0.4 | 0.5 | 7.6 | 15.3 |
| Number of creators[c] | 77 | 59 | 7 | 5 | 3 | 3 |
| Percent of users | (47.0%) | (55.1%) | (25.0%) | (21.7%) | (100%) | (100%) |

[a] Posts include blogs, discussions, documents, polls and status updates.
[b] Of the 287 posts, 94 were analyzed further (status updates were excluded from the content analysis).
[c] Creators are individuals who start a new post, not including people who only reply or comment on existing posts.

**Table 8**
Frequency and percentage of coded instances and messages coded by presence category.

| Coded category | Number of instances | % category instances | % total messages |
|---|---|---|---|
| Cognitive presence | 862 | | |
| Triggering event | 172 | 19.95% | 19.88% |
| Exploration | 423 | 49.07% | 48.90% |
| Integration | 203 | 23.55% | 23.47% |
| Resolution | 64 | 7.42% | 7.40% |
| Social presence | 780 | | |
| Affective | 254 | 19.66% | 29.36% |
| Group cohesion | 383 | 29.64% | 44.28% |
| Open communication | 655 | 50.70% | 75.72% |
| Teaching presence | 146 | | |
| Assessment | 1 | 0.49% | 0.12% |
| Design & organization | 15 | 7.35% | 1.73% |
| Direct instruction | 104 | 50.98% | 12.02% |
| Facilitating discourse | 84 | 41.18% | 9.71% |
| Learning presence | 552 | | |
| Forethought & planning | 9 | 0.98% | 1.04% |
| Monitoring | 147 | 16.03% | 16.99% |
| Strategy use | 376 | 41.00% | 43.47% |
| Reflection | 385 | 41.98% | 44.51% |

$N = 865$ messages.

because individuals responding to the post may not have been in the class. Table 10 shows the results of this analysis.

Of the 865 messages examined, 60% are entirely unrelated to class assignments and 60% of these messages contain evidence of practical inquiry. The pattern of results is similar between posts that are class-related relative to those that are not class-related. For those posts that are not related to any courses, most of the total instances of CP show evidence of *exploration* (52%), which includes instances of the author sharing information or suggestions. The next most frequent categories of practical inquiry are *integration* (21%), where the author connects ideas or proposes solutions, and *triggering event* (20%), where the message author stated puzzlement about a topic or shared a problem she was trying to solve. The CP category of *resolution* is less common in this sample, with only 7% of the non-class related content indicating examples of individuals testing or defending new ideas.

## 5. Discussion

The purpose of this study was to explore how members of a graduate program used an ESN to foster learning, particularly in the informal learning spaces that are situated "beyond the classroom." Our intent was to understand the levels and types of contributions members make in ESNs as a distinct type of Web 2.0 tool. While we are limited in the conclusions we can make based on the observable data in our case study, several points are worth noting from our results. We organize these around our discussion of community member use of informal learning spaces, and by our experiences using the CoI framework to examine online informal learning spaces.

### 5.1. Learning and engagement in online informal learning spaces

The first significant finding is that students did take advantage of the informal learning spaces to engage with other community members.

**Table 9**
Frequency and percentage of coded category instances for teaching presence by role.

| | Students | Part-time faculty | Full-time faculty/staff | Community manager |
|---|---|---|---|---|
| Instances coded | 6 (4.17%) | 27 (18.75%) | 73 (50.00%) | 40 (27.78%) |

$n = 146$ instances coded for TP role.

**Table 10**
Frequency and percentage of coded instances by cognitive presence category for class-related and not class-related messages.

| CP category | Class-related | Not class-related |
|---|---|---|
| Triggering event | 92 (20.0%) | 80 (19.90%) |
| Exploration | 239 (51.96%) | 184 (45.77%) |
| Integration | 95 (20.65%) | 108 (26.87%) |
| Resolution | 34 (7.39%) | 30 (7.46%) |

$n = 348$ for class-related messages; $n = 517$ for not class-related messages.

Similar to the findings of Suthers and Chu's (2012) examination of Web 2.0-based transcendent communities, we have evidence that users find value in online informal learning spaces situated beyond the formal classroom settings, based on the sheer level of activity within these spaces. This level of activity includes both the messages that exhibit cognitive presence and the trails left by active lurkers. To illustrate this, we offer these examples of comments made in posts where lurkers eventually emerged to share their behaviors and the value of their lurking: "Wow. I've been lurking and watching this post evolve. First of all, great post and comments. This definitely resonated with me because anyone who knows me knows that I love me some visuals"; and, "Thank you for sharing and opening up the conversation. It provided me with an 'aha' moment as my team and I are often providing talking points for leadership of client organizations and I'd never stopped to consider the questions raised here before." This is consistent with Sutton's (2001) conclusion that students can learn by observing and actively processing social interactions even when they are not commenting during the discussion.

The second theme emerging from our study is that the content of posts within informal spaces contains an interesting mix of social, cognitive, teaching and learning interactions. In some respects this finding is similar to the research we cited in Section 2.2.1. Although Greenhow et al. (2015) used a different coding framework, they too found a rich presence of argument, epistemic and social-construction in their study of informal learning discussions within a specific application of Facebook. Given the ESN's features and previous CoI research (Gorsky & Blau, 2009; Gorsky et al., 2012; Rourke & Kanuka, 2009; Shea et al., 2014), we were not surprised by our finding that social presence is the most frequent element in these spaces. However, we were pleased to also find a high level of cognitive presence and learning presence because the interactions in these spaces were not part of a class group. In their sample of eighteen students leading five student-led discussions within a doctoral-level course, Shea et al. (2014) found the following distribution of the occurrences for the four CoI elements: SP (55%), CP (23.4%), LP (15.5%) and TP (6.3%). In our sample of 164 professional masters program students, alumni, faculty and staff who generated 94 posts and 865 messages, the distribution of 3275 instances of CoI was SP (40%), CP (26%), LP (28%) and TP (6%). This shows similar levels of TP and CP, lower levels of SP but higher levels of LP. We may have detected lower levels of SP because we only sampled the dialogue in the informal learning spaces for purposes of focusing our content analysis. Shea et al. (2012) noted that LP appears to be context dependent, with their finding that higher levels and a greater variety of LP occurs in discussion contexts requiring more active collaboration. This may account for the relatively higher instances of LP found in our informal learning spaces, where students are engaging in self-regulated learning activities to accomplish their own learning objectives.

Although instances of TP are relatively low, it was somewhat surprising to find similar levels of teaching presence in our sample compared to other studies examining formal class groups; but evidence of TP in these informal spaces did exist. It surfaced most often as supporting individuals through *direct instruction* and some *facilitating discourse* such as sharing resources or acknowledging a post. The TP primarily was by full-time faculty/staff and the community manager, making connections and explicit references to related outside material

in order to support the practical inquiry process. With the lack of defined instructional tasks or formal assignments in this context, it also is not surprising to see fewer TP instances of *assessment* and *design and organization*. The CoI literature suggests that an instructor's design and organization of collaborative activities may influence social presence, and that both social presence and teaching presence influence critical discourse (Garrison et al., 2000, 2010; Garrison & Arbaugh, 2007). Our results suggest that given the right learning ecology, all of these aspects of teaching presence may not be required outside of formal class groups; however, teaching presence may still play an important role in informal learning spaces.

Related to this point, we find it important to note again one design element of the ESN used in our case study: the capability to co-locate both public, informal learning spaces and private, formal learning spaces within a single network system. This design allows users to easily move across these spaces within the community, utilizing the same system affordances in each space. In the ESN examined in this study, students can be engaged in a formal class assignment in a private group while at the same time asking a related question to the larger community in a public space that includes alumni, staff, faculty and students in other classes. An individual student may participate in this type of dynamic exchange across multiple classes and across months of time. The impact of teaching presence and the development of self-regulated learning skills *within the private formal spaces* on the level of critical dialogue *within the public, informal spaces* may be an area for further research. ESNs may therefore offer a larger "container" within which to examine longer-term development of individual and community engagement – as evidenced by LP, CP, SP and TP – in a learning ecology.

#### 5.1.1. Evidence of practical inquiry

Consistent with the review of CoI research by Rourke and Kanuka (2009), most of the CP in our study was at a lower level of CP (i.e., *exploration*). However, we did find relatively high levels of *integration*. Within the context of the larger learning community, students made connections between ideas (*integration*) presented in various classes and their own work, as evidenced by statements such as this one posted on a student's public blog: "As I reread some of the information behind the 70:20:10 learning model, and considered how to integrate social learning to better create and share knowledge, I began to see links between the MSLOC 430 and MSLOC 420 concepts." This student goes on to use an ESN feature to notify selected students from her previous class, drawing them into the conversation in order to continue the *exploration* and *integration*.

One point made by Rourke and Kanuka (2009) is that deep and meaningful learning may not be taking place within communities of inquiry due to low levels of *integration* and *resolution* and high levels of agreement generally observed in these online interactions. We too found high levels of agreement in our sample. However, it also is important to note that what appears in these online discussions does not represent all of the learning that occurs, as expressed in this comment from a student posted in response to a public blog post about a particular course:

> Taking the time to read what others are saying in their blogs or on the Hive is one of the most beneficial things you can do to expand your own perspectives in this class. That being said, it's also difficult to take the time to create our own knowledge to share and in addition it's horribly intimidating to be so public with a half-baked idea. Personally, once I came to the realization that learning trumps perfection, I cared less about how "'right"' my blog posts were and instead focused on the ideas and conversations that others tagged onto it.

Future research should include follow-up interviews or surveys of participants to understand whether online *exploration* and *integration* supported *resolution* outside of the online community. Even if the full practical inquiry cycle is not apparent online, these interactions may support practical inquiry and, as noted earlier, participants find value in these exchanges.

### 5.2. Applying the CoI framework to informal learning spaces

We began our research expecting to apply the original CoI coding scheme to find evidence of social, cognitive and teaching presence in the online environment. Similar to the experiences described in the research by Shea and his colleagues (Shea et al., 2014; Shea et al., 2010; Shea, Hayes, & Vickers, 2010) we encountered several problems reliably coding student discourse for TP. First, it was difficult to discern whether a student's contribution was the result of the student attempting to play an instructional role (i.e., intentionally facilitating the learning of others) or simply participating in a micro-collaboration with peers. As explained in our procedures (Section 3.3.1), we modified our original TP coding approach because the typical, designated instructional roles found in a classroom setting are absent in the informal learning spaces. Without clear evidence that the student was contributing from a position of expertise or intentionally directing instruction, the learning presence categories proposed by Shea and his colleagues provided more reliable options for coding the ESN messages. Second, many of the posts contained content that was difficult to place into one of the original CoI categories but nonetheless seemed to represent learning activities. For example, had we not included the *strategy use* category in our analyses, we would have missed a significant portion of learning activities directed at information sharing and seeking that fell short of meeting the CoI criteria for CP or TP. It is possible that LP is especially appropriate for coding content not related to a specific course or similar online informal learning environments. Although the LP categories of *forethought and planning* and *monitoring* may be less frequent in informal learning contexts because students are not collaborating around shared class assignments, we did find examples of students engaging in these activities even in spaces that were not designed to facilitate formal learning.

Because of their expertise in the context surrounding their posts and their roles in the community, we could clearly identify when a faculty/staff member or the community manager exhibited TP by refocusing a discussion, highlighting key concepts or acknowledging contributions. However, when students engaged in similar activities, they appeared to be engaging in monitoring, strategy use and reflection (i.e., learning presence) rather than playing the role of teacher. To effectively analyze participation in online informal learning spaces, both TP and LP should be included in the CoI framework and researchers need to establish ways to interpret the roles that participants may play without speculating about their intent. And, though we did not analyze instances of LP by user type, faculty and staff also may engage in their own self-regulated learning just as students do in these informal spaces. Future research should explore how roles may become more dynamic in ESNs and how that impacts the practical inquiry cycle.

### 5.3. Limitations

This study has limitations that should be considered when interpreting the data. The first consideration is that the data are from one graduate program that has unique features limiting generalizability to other higher education programs. The majority of students in the program are female, nearly all living in the United States and most in the Midwest. The graduate program examined in this study is designed for experienced, working professionals who are in or pursuing administrative, corporate management or consulting roles. Many students are attracted to the program because of their interests in innovative approaches to facilitate learning and development. The program also is highly collaborative overall. Reflection exercises, including written

reflection essays and papers that classmates read and comment on, are used throughout the curriculum, so there are norms established in class groups for public reflection and collaboration. Most of these students have prior experience using technology, social media, and in some cases ESNs. As such, the community members may be more motivated to use the ESN's informal learning spaces and to become comfortable experimenting with online collaboration.

A second limitation is that the case program is not an "online program," but the ESN is used for every course and for program administration. Students meet in person for class sessions, though not always on a traditional weekly schedule, so the ESN technology only partially mediates the social and learning environment. Unlike other LMS and online collaboration tools that are designed to facilitate discrete courses, the ESN examined here was designed to support curricular, co-curricular and extracurricular activities. Because the system is built into the entire curriculum and its administrative functions, the program dedicates resources to community management and training to help members use the system. The blended nature of the program and integration of Web 2.0 technologies creates an environment where personal connections and processes flow between online and in-person interactions, potentially contributing to higher levels of open communication and presence within the system compared to what might emerge in environments that do not have similar levels of technology integration or support. This may be a limitation in some respects, but it also is a design choice that seems to promote sociability.

Finally, we limited the scope of the current study to focus on a subset of posts in the ESN's informal learning spaces. The informal learning space posts that were identified as purely transactional, personal or administrative also may contain evidence of social presence, and as such our reported instances of social presence are a conservative estimate. Our decision to exclude those posts from further analysis was based on our interest in focusing on the non-mandatory dialogue in the informal learning spaces, and there were attributes of those posts that did not fit our selection criteria. For example, administrative discussion posts include announcements of deadlines or events, which tend to generate responses that are purely transactional (e.g., "yes, I will be there"). Another example is status updates that members used to share social news or personal announcements (e.g., birth announcements and photos). To most clearly demarcate our sample for content analysis, we eliminated an entire type of post (status updates) and exchanges that were transactional in nature. Future research should investigate how these types of ESN posts also may contribute to a community of inquiry.

## 6. Conclusion

Although some of these limitations caution against over-interpreting the ESN's impact on building a community of inquiry, our study offers insights for programs interested in using new Web 2.0 technologies for educational purposes. When carefully designed and supported by staff and faculty, ESNs can create learning environments that facilitate sociability, and a conclusion we draw from our study is that these systems can create social network spaces that provide more than "just social" environments. ESNs can support learning even in informal learning spaces where educational intent is less explicit compared to formal online class settings. In order to create such communities within higher education, it is important to note that the community manager role, which programs may not have, will be an important part of helping ESNs thrive. It is the community manager who in many respects provides the teaching presence for participants. This suggests that community managers and faculty/staff committed to engaging in these informal learning spaces may still be needed to provide a binding element for informal learning.

When students, faculty, staff and alumni are connected by an interest in a particular field of study, an online learning community facilitated by an ESN may help ideas flourish across and above courses, which are typically isolated in a learning management system. ESNs can allow students in a formal class group to easily interact with others who are not enrolled in the class but can contribute to their learning. In the case examined here, the students, faculty and alumni are using the informal learning spaces to discuss how to apply their learning to their professional roles, putting theory into practice. An online learning community has the potential to break the barriers that exist between the time-bound, formal class groups typically housed in the learning management system or in other social networking tools, such as Facebook. An ESN also provides the opportunity to establish an online environment with more clarity around its blending of educational and social uses, reducing the social tension observed in the adoption of a platform such as Facebook as an educational tool. The result is a persistent, private community that contains both time-bound, formal class groups in addition to open learning spaces that allow for community members to interact with each other without direction from a teacher, and yet the possibility for teaching presence to exist on some occasions. An implication we draw from this is that ESNs provide educators with opportunities for innovation, offering a new layer – the space between online interactions within formal classes and interactions on the open web – in which students and faculty may develop and sharpen their capabilities to leverage the potential of Web 2.0.

## Appendix A. Appendix

**Table 1A**
Coding categories and indicators.

| Element | Categories | Indicators | Example |
|---|---|---|---|
| | | Agreement or similarities shared | "I couldn't agree more with the paragraph that you shared. I probably looked like a bobble-head doll while I was reading it." |
| | | Disagreement or differences shared | "I think the underlying point you are making is a potential problem with no central authority is that the needs of the group can be in conflict with the needs of the individual. With that, I agree. But a distributed autonomous organization isn't necessarily a consensus organization nor is it necessarily even a democracy." |
| Cognitive presence (practical inquiry) | Triggering event | Recognize problem | "And that is the question I keep coming back to. Why are companies like ours failing (or refusing?) to enter the 21st century in managing our greatest asset?" |
| | | Puzzlement | "Do you feel that a 360 can effectively be done as a solo event? This staff member is heading a new department and feels that he is not being effective. From your response, it sounds like you integrate the 360 into the coaching sessions. I'm concerned that a standalone 360 may not provide the help he's looking for." |
| | Exploration | Divergence | "A short sidebar story related to measuring productivity and technology, related to your comments above. I am always wary of those numbers, in part because of an experience I had consulting..." |
| | | Information exchange | "Interesting topic! I wrote up a blog post on this topic not too long ago with one section on organizations … I know of two such organizations (I'm sure there are many more), both in the software field–Menlo Innovations (see Shaer, 2013) and Valve Software (see Yanis Varoufakis on EconTalk, 2012)." |

**Table 1A** (*continued*)

| Element | Categories | Indicators | Example |
|---|---|---|---|
| | | Suggestions | "I realized that a few actionable steps for getting started on Twitter might be helpful. 1. Sign up. You do not need to use your real name. … 2. Think about what you want to get out of Twitter. If you don't know, a good suggestion is "to broaden your PLN (personal learning network)"." |
| | | Brainstorming | "I have wondered if the type of organization makes a difference in adoption. I have no evidence of this but have thought that perhaps a non-profit may be more culturally attuned to knowledge management but lacks the resources to implement effectively, and many for-profits may lack the appreciation of the benefits and are unwilling to commit to something without a clear ROI." |
| | Integration | Convergence | "Nicely said. I agree that one of the key things here is to look at "prerequisites" for all the realized potential — and yes, trust. The most pre- of the prerequisites, I suspect." |
| | | Synthesis | "However, if I'm understanding you correctly — incentives work in environments where sharing is not the norm, but are not as effective in environments where the culture of sharing is strong? In our particular situation, our volunteers are dispersed and relatively disconnected from each other. As we explore models to increase engagement and interaction amongst volunteers, gamification may then be a positive addition." |
| | | Connecting ideas | "… I began to see links between the MSLOC 430 and MSLOC 420 concepts./This connects to similar conversations I had last week in 420 on how organizations can foster a growth mindset in the workforce." |
| | | Solutions | "I find that setting up Search streams in HootSuite helps me quickly scan through tweets that might be of interest based on particular hashtags. Note that you can use OR searching to have one stream bring back tweets from different hashtags that you want to group together in some way." |
| | Resolution | Apply new ideas | "I've been setting up little tests to challenge that assumption and begin to see how it feels to be a "learner" — someone who is growing, rather than judging myself and seeing what I would have considered "mistakes" as opportunities to learn." |
| | | Test | "In the spirit of experimentation and "walking the walk", I have posed a question to my LinkedIn network about a business issue I am currently battling with. Stay tuned for the next blog post where I will be sharing the results from my open source experiment..." |
| | | Defend | "I decided that I needed to find a way to embrace Twitter. I applied the same discipline to my social media life that we advise our clients to do, and decided on a purpose for Twitter. Twitter = learning and knowledge sharing…Once I reset my objective for Twitter to information gathering and knowledge sharing, I became more comfortable with the open community… I now think of Twitter as a jumping-off point, not as the destination." |
| Social Presence | Affective | Use of emoticons | N/A |
| | | Expressing emotions (humor, joking, self-disclosure, sharing of feelings) | "And I respond by screaming (in my head) "Then why aren't we managing it?!" |
| | | | "Super excited and proud of you for making the big leap!" |
| | Group cohesion | Encouraging collaboration | "What have you seen that works or doesn't work? My 420 & 430 classmates: [@mention] & [@mention] - Do these 420/430 connections make sense to you? How would you expand upon this?" |
| | | Helping | "My Capstone project is on CoPs, specifically on individual mental models of CoPs and how orgs can position these groups to be successful. If you can wait two-ish weeks, I'll have my final exec summary complete. If it's more urgent, I can share my near-final findings, which I'm still fine tuning." |
| | | Supporting | "This is fantastically exciting news! Congratulations on your bold, decisive move …' |
| | Open communica-tion | Risk-free expression | "I usually regret what I have written about five minutes later, thinking of all that I should have said, or not said. But, I'm trying and, I think, that's what really matters." |
| | | Mutual awareness (being encouraging) | "I look forward to seeing where this question leads you, will stay tuned." |
| | | Recognition of each other's contributions (acknowledging others) | "Thank you for the tip — sounds really interesting and I just ordered a sample of it on my Kindle to check it out further. May be a useful source for my Capstone!" |
| | | Thanks! | "Thanks [NAME] — appreciate it!" |
| Learning Presence | Forethought and planning | Goal Setting | "Over the next several weeks I hope to answer at least a few of the questions I have asked here, or at least uncover some really interesting ideas and concepts related to these questions." |
| | | Planning | "My next blog post is going to be tied a little bit to the inspiration around how people become givers and the generosity of online communities." |
| | | Coordinating, delegating or assigning tasks to self and others | No instances found. |
| | Monitoring | Checking for understanding | "Can you please clarify what you're asking for? A kind of form to determine whether one needs to redesign a website?" |
| | | Identifying problems or issues | "…let me reiterate that I have just started the program this January... There are a few themes that have come up in class that I feel would be helpful to know about. One of which is Design Thinking." |
| | | Noting completion of tasks | "Update 6 months later: I am now fully onboard with Twitter. I've left advertising since writing the initial post, and have started my own consulting practice." |
| | | Evaluating quality | "Wow. This is an exceptionally well-written blog. How did I overlook this in msloc430 class?" |
| | | Observing during performance and taking corrective action | "Well said, [NAME], and all who followed. I had these issues, too. Time to curate my Twitter list. Thank you!" |
| | | Appraising personal interest, engagement or reaction | "What a delight to read your blog post! I've always had an interest and curiosity for 70–20-10." |
| | | Recognizing learning behaviors of self or group (i.e., metacognition) | "The whole irony of this blogging thing is that despite blogging being SO public and geared towards engaging others, I have found that the more I focused on what the process did for me, the more I got out of it. Once I stopped thinking about how others might react or judge something I wrote, the more I enjoyed it." |
| | | Advocating effort or focus | "I'm already looking forward to your next blog post! Your conversation helps to inspire mine." |
| | | Noting use of strategies | "I greatly appreciate how you jump in to help across so many different conversations. It's truly impressive and greatly appreciated!" |
| | Strategy use | Seeking help | "Do any of you have any good templates or formats for exit interviews that you could share? I am about to conduct an exit interview in the next couple of weeks, and would like to improve upon what we currently use. Thanks for your help in advance!" |

(*continued on next page*)

**Table 1A** (*continued*)

| Element | Categories | Indicators | Example |
|---|---|---|---|
| | | Offering help | "Please let me know if there is anything else that I can do to support you and your efforts." |
| | | Recognizing a gap in knowledge | "I'm in a similar situation as you in being in my first quarter without having taken Foundations. I'm only in one class, though. I haven't heard Design Thinking referenced that much, but I am still left with questions after reading that reference document." |
| | | Reviewing | "Thank you all for taking the time to respond to my post. This is why I'm so intrigued by Knowledge Management (and the Hive). I love the fact that people I didn't even expect to have Design Thinking experience jumped in and added thoughts to the conversation." |
| | | Noting outcome expectations | "Thanks for your questions. They will absolutely help me frame my thinking!" |
| | | Seeking additional information | "I'd be interested in hearing how different companies/organizations have approached the desire to increase/improve "creativity"." |
| | | Offering additional information | "Design Thinking is quite the sexy term in MSLOC. You probably know what it is my now. But if you don't, know that it was coined by the thought leaders behind IDEO, which is an innovation firm, or the innovation firm, "that applies its human-centered approach to drive innovation and change for leading businesses, gov.'ts etc." (Brown, T., Change by Design, 2009)." |
| | Reflection | Change in thinking | "I didn't actually think of the overall message of the Bridgespan study in that way, but great call! It does look like "networks" are a common theme connecting the findings." |
| | | Causal attribution of results to personal or group performance | "One of the things I'm (slowly) getting out of this class and MSLOC in general, is that learning does indeed trump perfection. The process of learning – collaborating, exchanging ideas, taking risks – yields dividends far greater than a solitary process that I typically seek when seeking perfection." |
| | | Sharing opinion, understanding, or meaning | "I believe that the extent to which a stakeholder is willing to share is linked to their perceived level of trust in me as a consulting resource. … I suspect however that trust in this context is influenced by much more than my charming personality." |
| Teaching Presence | Design and Organization | Setting curriculum | N/A |
| | | Designing methods | "Yes — it would be helpful to have [a Twitter account]." |
| | | Establishing time/learning parameters | "Join me and 16 members of my graduate course (MSLOC 430 Creating and Sharing Knowledge) as we explore these questions in an hour-long Twitter chat beginning at 8 pm CT (U.S.) on Tuesday, May 20. Hashtag is #msloc430." |
| | | Utilizing medium effectively | "If you move this to the MSLOC Water Cooler it might get more responses because the Water Cooler stream appears on the Home > Overview page." |
| | | Establishing netiquette | N/A |
| | | Making macro-level comments about course content | "I really like your description of "authentic." Because that is exactly the point – and one of the hardest habits to build because we all fall into teacher and student mode, rather than just all be learners." |
| | Facilitating discourse | Identifying areas of agreement/disagreement to enhance learning | "The key seems to be prioritizing the need to schedule "oasis time". I also think that Cleese is drawing a connection between tolerance for ambiguity and creativity. Finally, I couldn't help but think about meditation and mindfulness as a necessary condition for creating the oasis." |
| | | Encouraging, acknowledging contributions | "Great post BTW. This is so classic ... and also, everyone pretty much feels like a laggard." |
| | | Setting climate for learning | "This is great. Big. But great. Count me in to help because these are |
| | | Drawing in participants, prompting discussion | topics of deep interest to me as well. And what occurs to me is this: …" |
| | | Presenting follow-up topics for discussion (ad hoc) | "Welcome! Just curious, can you share more about the Design Thinking exercise you mention?" |
| | | Refocusing discussion on specific/relevant issues | "Let's just say for the sake of argument that the L&D profession (as is) will become like the newspaper reporter profession. Where will the "replacement" talent set emerge? Wondering aloud - where else, or what other roles outside L&D might be emerging?" |
| | | Summarizing discussion contributions to highlight key concepts | "It seems like volunteer activities fall along some scale. One the one end is a very task-specific activity that maybe people do once a year or very occasionally. The other is when a volunteer engages routinely in some regular activity. Do you think this is the case? I'm wondering because I do think it then might have an impact on how you approach the knowledge-sharing bits... |
| | | | "… yes, these "second generation biases" do exist in many organizations, corporate and NFP, across industries. In part, that's because (as the authors point out) some of it is cultural and learned at young ages, and we've not yet found easy ways to get past some of these barriers (e.g., double binds)–unless a leadership team intentionally takes them on." |
| | Direct Instruction | Providing valuable analogies to make material comprehensible | "The more I go through this period of community tension, the more I am beginning to believe the leading indicator of pending success is the presence of half-baked thinking. |
| | | Offering useful illustrations | Sometimes the clues to a blog post or discussion comment being half-baked are as obvious as the cold in Chicago in February. The authors literally say "this is half-baked thinking" or "I haven't thought this all the way through but…" Other times it's more subtle." |
| | | Conducting informative demonstrations | "In addition to Hootsuite etc., I also find myself curating a FEW Twitter lists more aggressively - for topics that I really want to "steward" in your words. The lists give me a good way to quickly scan users who tend to say a lot about topics I am interested in...." |
| | | Supplying clarifying information | No instances found. |
| | | Making explicit reference to outside material | "Your post immediately made me think of the "Values Jam" that IBM CEO Lou Gerstner ran several years ago. This is a reading in Executing Strategic Change (which you'll take this summer)." |
| | Assessment | Formative or summative feedback | "My net take-away: It reaffirms what I have heard from others about how MSLOCers have the people and organizational culture sensibilities to recognize and appreciate the nuances discussed here. And that's not common." |
| | | Soliciting feedback/assessment (formative or summative) | No instances found. |

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