# An Emerging On-Line "Third Place" For Information Systems (IS) Students: Some Preliminary Observations

**Lori Baker-Eveleth**
**Daniel M. Eveleth**
Department of Business and Economics
University of Idaho
Moscow, ID 83844-3161
leveleth@uidaho.edu   eveleth@uidaho.edu

**Suprateek Sarker**
Department of Information Systems
Washington State University
Pullman, WA 99164
sarkers@cbe.wsu.edu

## ABSTRACT

The increased social fragmentation in the fast-paced lives of individuals, particularly college students, is resulting in many dysfunctional effects – disappearance of community feeling, the inability to relate to one another, an impaired ability to collaborate with others, and greater obstacles in collaboratively constructing knowledge. Oldenburg's (Oldenburg, 1989) "third place" concept provides a refreshingly new metaphor to conceptualize how technology-mediated interactions can help solve the problem of fragmentation by enhancing the sense of community. In the specific context of information systems (IS) education, an on-line third place can not only enhance the sense of community among students, but can also prepare students for careers in learning organizations that operate in complex, dynamic, and global environments. Our preliminary attempts to implement an on-line third place within an IS program indicate increased dialogue among students on course topics as well as an enhanced quality of their social networks.

**Keywords**: Online community, Information systems, Database

## 1. INTRODUCTION

It is late evening and a student is having trouble understanding the difference between the concepts of partial and transitive dependencies covered by his database professor. He looks through his textbook, re-reads his notes, but still can't grasp the difference. The exam on normalization is the next day, so in desperation he arrives at the coffeehouse to ask a fellow classmate for help in understanding the "normal forms." At the coffeehouse, many students from the class are also present. They break up into small groups and begin a conversation about concepts related to database design. Leaving the coffeehouse a few hours later, the student reflects on this coffeehouse experience. His sense of frustration and confusion has disappeared, and he feels a sense of accomplishment in talking through the different concepts related to this course, and tying in topics from other courses as well. He expects to perform well on the exam. What is more, he seems to have enjoyed the social

interactions. The conversations in the coffeehouse have allowed him to blow off steam, relate to others with similar interests, whether academic or extracurricular , and feel a sense of connectedness with his classmates, many of whom will be his friends, his professional peers, and contacts through his entire life. What is more, the student has achieved all of this without leaving the comfort of his room at his time of convenience.

Shouldn't every IS student have the opportunity to take advantage of such a coffeehouse? Wouldn't the education process be significantly enriched if such an opportunity could be provided systematically and consistently as part of many IS programs, particularly in an economic slump where programs are trying to cope with enormous enrollment growths without the advantages of matching resources? Also, recognizing the time pressures a majority of students face through much of their college life, would it not be a worthwhile endeavor to provide students with access to such

coffeehouse environments with minimal space and time constraints where they can be part of a community? Finally, wouldn't it be useful for IS students to develop the skills needed to participate in communities of practice in their future positions?

In this paper, we describe the notion of "third place" proposed by Oldenburg (1989). This concept provides a way to enable a sense of community among participants of a space (in this case, college students). In addition, we describe a preliminary report of our experiences utilizing Web-based technology to implement a "third place" for information systems students.

The importance of creating a community of peers has never been more pronounced, especially for college students. Over 77% of college students work part-time and 26% full-time, while attending college (Block, 2003). This leaves students little time to run from class to work to home during a day. Moreover, the increasing level of technological mediation in most activities leaves students' lives seriously fragmented (Speier, Valacich, & Vessey, 1999), and devoid of time and opportunity for interacting with others (Kenway & Bullen, 2000; Sarker & Sahay, 2004). Such fragmentation appears to have a number of dysfunctional effects. It promotes unsociable as well as anti-social behaviors, raises barriers for students in acquiring certain kinds of knowledge, and inhibits their ability to attain *mutual understanding* with others – a fundamental requirement in any cooperative activity, especially systems design and implementation (Nelson & Cooprider, 1996).

Fragmentation and reduced social interaction is particularly worrisome for IS students because of the expectations in the professional world. Graduating IS students will enter a world which places high demand on teamwork (Varve, Adams, Pridie, & Ruiz Ulloa, 2004). More specifically, the current trend is to work in cross-functional teams. An employee is assigned to a team with other people from different functional areas such as IS or marketing. The downside of this trend is that a member of the team is likely to be the only representative of that area. For a recent college graduate, this can minimize interaction and knowledge sharing with functional peers, which, in turn, leads to additional fragmentation. Thus, the availability of a forum for informal interaction is necessary not only for the interest of attaining knowledge, but also for the development of skills needed to thrive in a profession that requires significant social interaction.

Focusing specifically on IS education, there is a need for community development through informal interactions which provides outcomes not necessarily available through the more formal, classroom-based methods. Most traditional IS courses help students increase technical knowledge and acquire technical skills to develop, manage, and maintain operating systems. While certain types of knowledge (propositional knowledge) can indeed be acquired through traditional classroom lectures, other types of IS knowledge (conceptual and symbolic knowledge) can best be learned through interactions within a community setting (Sarker,

Lau, & Sahay, 2001). Third place communities provide students with this learning environment. Students have the opportunity to construct meaning from the content in a community atmosphere by sharing information in dynamic conversations (Smith & MacGregor, 1992). In the work environment, a learning community is directly associated to a community of practice, mutual engagement in a shared practice (Lesser & Storck, 2001; Wenger, 1998). Creating an on-line third place, such as one resembling a coffeehouse described in the opening scenario, can be an effective strategy to facilitate student interactions, and thus, learning. Additionally, students having access to a third place to experience an environment analogous to a community of practice.

The remainder of this paper is organized into three sections. First, we describe the third place concept and the role of technology in developing an on-line third place. Next, we analyze a case study involving the development of an on-line third place for undergraduate students. This case was part of an undergraduate database systems course at a medium-sized state university in the inland northwest region of the United States. Finally, we discuss the implications the results of this case study have on the future of IS education and on the development of IS courses.

## 2. THE "THIRD PLACE" CONCEPT

Dramatic changes occurred in the United States following World War II. The building of freeways and highways allowed people to move away from their traditional living environments into the suburbs (Oldenburg, 1989). Instead of working and living in close proximity people began to drive every where. Prior to living in the suburbs, friends and family would meet at the local public house or café to discuss and debate life while interacting with other acquaintances. Now after work we spend our time in the car, driving home alone. A simple example of this can be seen in grocery stores. Instead of the small "mom and pop" stores we see larger, one-stop mega stores where you can buy everything from tires to bananas. Convenience has surpassed the personal connection to the owners of the store. Informal, interactive spaces have waned in the past twenty years (Putnam, 2000). A third place is an informal public space where conversation and dialogue are essential activities. In every community there is a first place of home, a second place of work and a third place - these three components make up a community. If one component is missing it affects the stability of the community. A third place is an essential component in that it allows people to interact in an informal, public, and conversation-based environment while not being a home or work environment. A third place fills an important component of a community by allowing people to interact, share a common area, and work toward a common goal.

A third place is often identified as a non-descript place where local community members "hang-out" such as a coffee shop, a bar, a beauty parlor, a water-cooler, or a drugstore soda counter. Thirty years ago in IS education, the university computer lab may have served as a third place where students waited while programs ran on the university

mainframe. Oldenburg suggests people seek out a third place because the functions it serves are missing from their lives. Building a community, with common bonds and ties, social interaction, and shared location (Hillery, 1955) in an educational environment provides students with a similar "hang out" space. This also teaches them how to create an informal public life for themselves or to survive and thrive in ones that are created for them (i.e., communities of practice).

There are a number of shared characteristics across third places: lively, witty conversation, a leveling space that serves as a neutral ground, a regular set of "customers" building the artifice of a home away from home, and accessibility to people during the day and night with accommodations for their varying schedules. Conversation is the main activity in a third place and occurs with a spirit of inclusion rather than exclusivity (Hamman, 2000; Schuler, 1996). Dialogs provide an opportunity to flesh out questions, sound out protests, and form opinions. According to connectionist theorists, individuals hanging out participating in a conversation around a "water-cooler," can "discover what they know" and "share it with their colleagues" (Davenport & Prusak, 1998). Members of these third places know they can gather and be assured acquaintances will be available for conversing any time of day or night. In addition, these spaces welcome everyone and no one is expected to play the role of host or guest. This neutral ground encourages people to gather, not to talk to the owner or manager of the shop, but to discuss with other patrons. A leveling environment, derived from the 17th century English, is the idea of leaving one's class and status behind and interacting with anyone regardless of their social or economic status. Therefore, third places are more than a physical space--they require the interaction and companionship of people. The key to a third place's existence is individuals' needs for a conversation-based, neutral ground that serves as a home away from home and work and is not based on social or economic status (Oldenburg, 1989; Rheingold, 1993).

For many individuals, including college students, the opportunity to interact in a third place such as a neighborhood coffeehouse is limited. This limitation creates a sense of loss in community (Putnam, 2000) and a lack of social cohesion and satisfaction in society. Oldenburg suggests the lack of community poisons not only an individual's sense of wellbeing, but also grass-roots democracy and civil society. Certainly, these are important concerns for the higher education system charged with producing individuals with necessary skills for future work environments as well as individuals who can play the role of responsible citizens within their communities.

Building a community in an educational environment provides students with similar advantages of the larger community, but also teaches them how to create an informal public life for themselves. The nature of the on-line environment embeds some of the third place elements concurrently. The environment is Web-based and accessible to anyone with an Internet connection and Web browser. This makes the environment accessible twenty-four hours a day, seven days a week as long as the user has the needed hardware/software connection. The on-line space supports all who are willing to interact. The space accommodates any conversation without a prescribed plan or activity. An advantage in an on-line environment where the type of car you drive or the color of your hair needs to have no bearing on your ability to interact with others in the environment.

The rapid expansion of Internet technology provides an excellent opportunity to address the difficulties associated with time-space fragmentation and the reduction of community by extending Oldenburg's third place concept to an on-line platform (Garton, Haythornthwaite, & Wellman, 1997). Every new step in technology, whether a new medium or changes within a medium, has brought different ways of distributing information while still maintaining and preserving aspects of the old system (Postmes, Spears, & Lea, 2000). Although the Internet can enable the creation of a community environment, the Internet can not simulate all aspects of a physical third place (coffee aromas and fresh baked bread for example). It can provide an accessible, neutral, leveled, and convenient environment for learning-- engaging many or a few in conversation. More importantly, an on-line third place can provide students a relatively seamless learning environment reflective of future work environments.

## 3. LEARNING AND THE (ON-LINE) THIRD PLACE

Study groups are not new in IS education, but the creation of a unique interactive and informal computer-mediated environment providing students with the opportunity to converse on a wide variety of topics, and to debate and dissent in an on-line space is anything but common (Schuler, 1996). An on-line third place removes the physical aspect of a shared space, but still allows participants to interact in conversations on a wide array of topics. The interaction of students in an on-line environment is an apt setting for investigation of an on-line third place. Students, with fragmented time, have limited opportunity to meet face-to-face and must collaborate on assignments using other venues. In addition to discussing assignments, students interact and build relationships with other participants enabling them to engage in the course material more deeply and discuss the information more critically.

## 4. ON-LINE THIRD PLACE AND LEARNING

Most on-line interactions are primarily conversational and text-based, and can promote a third place feeling (Harasim, 1990). In fact, many scholars persuasively argue such environments greatly enhance learning. Interaction and communication are essential to the development of an effective learning situation. The elements of an on-line third place such as conversation, collaboration, and cooperation support the generation of an on-line learning community – an "intentionally developed community that will promote and maximize learning" (Lenning & Ebbers, 1999). Community building and education are dynamic processes where knowledge is not a product to be accumulated, but an active process in which the learner attempts to make sense of the

world. Learning communities foster student engagement and achievement; incorporating and valuing diversity within the group (Gabelnick, MacGregor, Matthews, & Smith, 1990). Working cooperatively with other students reinforces the importance of different perspectives, and helps members understand their role as an individual within the group (Kowch & Schwier, 1997; Lenning & Ebbers, 1999; Meisel & Marx, 1999). Conversation, dialogue, and debate provide a union between egoism and altruism. Although activity in a third place is largely unplanned and not prescribed, a learning community structure can be loosely structured around topics of interest.

Instead of being a distant observer in a large lecture room, students in learning community environments are actively involved in the material through discussion (Smith & MacGregor, 1994). In large lectures, it is impossible for an instructor to ensure each student is engaged in the information. An on-line environment creates a space where students are free to explore ideas with other students. Furthermore, discussion enhances learning by forcing students to contextualize the information.

There are several methods utilizing collaborative learning, but all the strategies are centered on the students' process of investigation and their discovery or application of the knowledge rather than a teacher's presentation of the material (Bosworth & Hamilton, 1994). Working in a group, each member is expected to be an intellectually responsible participant. An on-line learning environment provides the tool to allow multiple minds to join together while removing the logistics of physically grouping students into discussion groups, as required in a lecture classroom (Hall & Graham, 2004; Schneider, Kerwin, Frechtling, & Vivari, 2002). The physical characteristics associated with people are minimized on-line--the clothes you wear, the type of car you drive, or the amount of money you make do not influence whether you can engage in a meaningful and constructive conversation. Everyone is included. It can also reduce "air-time" for someone who monopolizes conversations (Selfe & Meyer, 1991). Logistics and inclusion of participants are added advantages to an on-line environment (Rovai, 2002).

To summarize, we believe an on-line third place can be fertile training ground for future knowledge workers (including, but not limited to, systems professionals) many of which are likely to find themselves in learning organizations. Even more importantly, we feel that such a hangout space can enhance the sense of belonging to a community of peers. This can contribute to the reduction of anti-social acts (e.g., malicious hacking) often arising from social alienation, that have been on the rise in recent times (Haythornthwaite, Kazmer, Robins, & Shoemaker, 2000).

## 5. AN IMPLEMENTATION OF THE THIRD PLACE AND PRELIMINARY ANALYSIS

An experimental on-line learning environment called Speakeasy Studio and Café was used to create a third place for students in an undergraduate IS course. The on-line space was designed and developed at a public northwest university

and was available for use by instructors, faculty, and staff at the university. Metaphorically developed as a café, the space "simulated" a coffeehouse environment with neighborhoods representing physical locations of the campuses, and the studios or cafes representing a specific class. The cafés are representative of physical third place communities where patrons come to talk and chat. The environment allowed for flexible interactions with both asynchronous and synchronous options.

Participants in the case study were undergraduate IS students enrolled in a semester long, database design course. Most of the students participating in this pilot study were in their last semester of study before graduation (n=28, 89% graduating) with 86% male (n=24) and 14% female (n=4). The interaction among students within the on-line space provided by Speakeasy was the primary focus of our investigation. More importantly, the on-line environment (the third place) provided a supplement to the face-to-face interaction during class times (the second place), and was not intended to be a substitute. The interactions in the on-line environment focused on the first half of the semester when students were developing teams (the final project was team-based for a local business) and mid-semester when the design of the project was underway.

Each student in the course was given access to the system. To get to the specific café assigned to the course, a student logged on to the Speakeasy system and then selected the specific "neighborhood" representing a broad sub-group (e.g., a department) within the university community. Within the neighborhood are various cafés (e.g., courses) at the university. Upon entering the café assigned to their course, students would see different scheduled events - some events currently playing and others scheduled for future weeks.

Each event was assigned a "table" representing an activity related to the event or topic being covered. Tables, complete with coffee cup rings for visual appeal, acted as spaces to discuss and debate issues related to the course. A table could also be a work-space for a team completing a project. The dialog between students at each table served as the data for our efforts to identify preliminary categories related to the creation and outcomes of a third place environment.

Data was collected through observation in the on-line space and documented analysis of the synchronous chats and asynchronous discussions. On-line third place exploration suits itself well for qualitative methods because of the minimal documentation available. Furthermore, on-line third places allow the examination of complex social phenomena of on-line interactions. A groundearkerd theory approach will help to develop theory related to those types of interactions. The primary objective of grounded theory is to expand on the identified phenomena, categorize the relationships of the phenomena's elements to the context and process of study, and finally develop theory related to the phenomena within that context (Charmaz, 2000; Glaser & Strauss, 1967; Locke, 2001; Strauss & Corbin, 1990).

As is prescribed by the norms of grounded theory approaches to data analysis (e.g., Charmaz, 2000), data collection and data analysis processes occurred in parallel and in iterations. Thus, the process included looking at data, identifying possible themes or categories, discussion, reading more literature, and finally revisiting the data or looking at new data. While theory, analysis, and discussion are kept separate in a study designed to test theory, this study's goal was to develop a rich, descriptive picture of the phenomenon under investigation. The research question served as a guide to collect, analyze, and discuss data. The resulting analysis section of the report blends all three. Charmaz (2000) refers to the process as one of composing a story rather than telling a story and suggests that a report of the analysis should take on a literary style more than a scientific style.

Observation and document analysis were perfunctory in understanding the interaction and engagement of students in the on-line space. Recorded events, behaviors, and other artifacts in the synchronous and asynchronous environment (i.e., chat transcripts and threaded discussions) provide direct descriptions from students containing detailed and non-judgmental, concrete descriptions of their experiences (Marshall & Rossman, 1999). Advantages to this methodology allow direct information about the behavior of individuals and groups in the environment. An observer can enter into the environment in a somewhat unobtrusive manner, but can also participate if needed. The information obtained from the observation and analysis of documents is useful for discovering and developing a theory and therefore, advantageous to a grounded theory approach. In a traditional learning environment, this method would involve observing all interactions as well as the non-verbal cues that occur in the environment (Burke & Chidambaram, 1999). An advantage of observing in an on-line environment is the observation can take place in the form of lurking where the researcher is present in the space, but unobserved and unobtrusive (Davis, 1997; Meisel & Marx, 1999). By lurking in an on-line environment, the researcher can gain an understanding of the norms and expectations of the group (Davis, 1997).

In total, 28 students posted comments to the asynchronous and synchronous chat-room space over six of the sixteen-week semester. The first author adopted an ethnographic approach to data collection and in generating the first round of interpretations (Agar, 1986; Van Maanen, 1988). This formed the foundation for the application of more-structured grounded theory coding techniques, leading to the identification of concepts and sub-categories, which were re-ordered and abstracted into plausible categories or higher-level themes (Charmaz, 2000; Strauss & Corbin, 1990).

The findings are based on the researchers' interpretations of the students' on-line comments. They are consistent with well-known concepts of community development in providing a shared space, interacting socially, and creating a common bond (Hillery, 1955). Further, the categories correlate with third place concepts; in that, they provide a neutral ground for lively conversation, a leveling space

where everyone is equal, and build a home away from home where everyone is comfortable (Oldenburg, 1989).

The results of the analysis are reported in the following section of the paper. Discussion of some preliminary categories that emerged from our analysis of student conversations within the "third place" created using the on-line environment, Speakeasy Studio and Café, are presented (see Figure 1).

### 5.1 Analysis of On-line Conversations

**5.1.1 Relational Development:** Working in groups/teams is an essential part of our lives, more so now with the added opportunity of distributed teams in the workplace (Lipnack & Stamps, 1999). Several aspects of our work environment employ group interaction. Although just gathering people together in one space provides no guarantee this collection of individuals will become a community, with the development of a relationship among these individuals, their shared experiences do tend to coalesce, thereby facilitating the formation of a shared sense of community. The key recurrent theme identified was relational development, which in turn resulted in the formation of "groupness" (Brilhart, 1978).
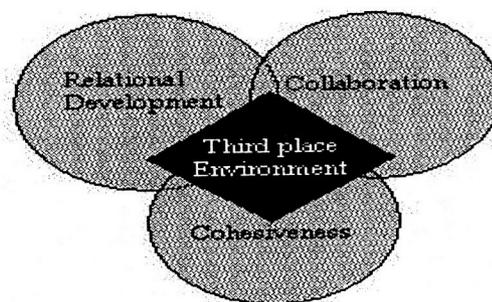


**Figure 1 Third Place Categories**

Group work provides students with a multitude of different perspectives that they may not have considered before. For a group to be effective they must address two dimensions, task and relational (Rothwell, 1998). Forming a group provides diverse approaches to the task dimension considering each individual carries empirical biases and perspectives (Dennis, Aronson, Heninger, & Walker II 1999). The relational dimension is linked to social interaction. Socialization of undergraduates is very important to the college experience (Newman, 2000). John Dewey highlights the importance of social interaction stating, "Not only is all social life identical with communication, but all communication is educative" (Burbules & Bruce, 2001). The more students get to know each other, the more information these students share about their non-academic and academic lives. As students engage with each other, they become more socially comfortable with each other. Students not only feel secure in sharing their own views, but also start "listening with" others, promoting a deep sense of mutuality (Gyllenpalm, 2002). Significant learning can occur in this situation, with student's

recursively co-constructing knowledge (Stiles, 2000) in a manner likened to "improvisational jazz" (Gyllenpalm, 2002).

At the beginning of the semester, students in the database design course posted a letter of introduction in the on-line environment that included some mention of their team-oriented and project-oriented strengths and weakness (i.e. information pertaining to task and relational dimensions). Students then responded to their classmates' introductions and communicated in an effort to form teams for the course project. A review of the initial conversations that took place in this on-line environment showed conversation tended to be relationship-oriented rather than task-oriented. Consider for example the following conversation between two students about skiing:

> **Student 1:** *What I would give to become a ski bum.*
> **Student 2:** *I have a friend who worked at some resort in Vail. He waited tables at night and skied all day. He served people like Warren Miller and Jack Nicholson.*

This discussion may have had very little to do with the strengths and weakness of the student or his/her ability to perform on a team. However, the dialogue did provide insight into what the student enjoyed doing outside of academic life, which could be an important issue in the development of a relationship (even professional) with peers. Couch (1996) refers to such (seemingly irrelevant) conversations as the exchange of evocative symbols and contends collaborative relationships are enabled and strengthened through their use. Providing a space for students to discuss issues related to their personal lives is an important function of a third place. Such social interactions are crucial for two reasons: they help in the formation and maintenance of productive professional relationships, and because the college experience cannot be separated from the social interactions needed for the existence of functional community.

*Informality:* A sub-theme associated with relational development is writing's informality in the on-line environment. This sub-theme is present in the tone and style of the writing students use with each other. Casual language, in electronic text, is similar to "chit-chat" you might have sitting at a table. This is also a way of enhancing the relational dimension. Informal conversation, just as in formal conversations, uses the established norms of the community. In a formal setting, you would introduce yourself and provide information about who you are. In this case, the students were not strangers; many of them had had courses together in the past and had even worked together on teams. Although the students had been acquainted with each other, they didn't necessarily know each other well. Regardless, they did use introductory greetings and descriptions about themselves (Sarker & Sahay, 2003). Many of follow-up questions were to garner more information about something that was shared. These topics might be new information such as an internship the student had experienced or information on an awaiting event such as a birth in the family. Slang or the use of established abbreviations also displays the informality of the message:

> **Student 1:** *Interesting story, good talking to you.*
> **Student 2:** *I was able to go to Japan, Delaware, and Virginia with the AF. I was stationed in DE for 3 years... pretty much sucked.*

Using informal language and slang (such as the word "sucked") indicates a degree of comfort in the interaction. Informal, public conversation spaces are the basis of a third place. Oldenburg suggests that people out third places because they are missing from their lives. The tone and style of language used by the students in the interaction, and the comfort of revealing details about their own lives to other visitors to the third place, provide support to Oldenburg's assertion that people seek an informal public space (Berge & Collins, 1995).

**5.1.2 Collaboration:** A group needs to have both the task and relation dimensions balanced in order to be effective. A proficient collaborator will balance the dimensions as well as make a commitment to the group for the duration of the project (Kirkman, Jones, & Shapiro, 2000). Collaboration is the next theme that emerged in this study. Collaboration is defined as a naturally occurring social act wherein peers not only work together towards a particular goal but also learn from one-another (Gabelnick et al., 1990). As the previous theme has addressed, interaction and the sharing of information is a way to collaborate with others. Collaboration is an active process, not one that takes place in isolation. Participants talked about information allowing them to organize thoughts and make ideas clearer. In the discussion, different perspectives were articulated and debated. The purpose was not to come to consensus but to create knowledge and meaning individually (Bruffee, 1984, 1993; Johnson & Johnson, 1994). Collaboration in the form of group work can increase a student's engagement in the learning process (Johnson & Johnson, 1994). Additionally, collaboration can level the learning experience. As collaborators, each student created meaning from the information and that meaning was shared among the group. Individuals' personalities and styles are incorporated into the group. Not only do group members get to know each other in a different and fuller aspect, but they could become equal members of the group. In one activity, students collaborated to form project teams. The students sought information about potential team members. In discussions with other students, a student looked for information to make a decision on group membership. This created an inclusive understanding of each other's strengths and weaknesses. In the process of finding out information, the students asked questions and were able to identify with one another based on responses provided.

A group that collaborates and interacts on a personal level increases the relational dimension of the group as well. Strong personal relationships give way to greater personal accountability (Johnson & Johnson, 1994). A group's sense of belonging also tends to boost the desire to learn. One student clearly articulated the dichotomy of teamwork:

**Student:** *I think I still need to learn the value of working on a team. Trusting team members to not only do their share of the work but to do it well, rather than trying to do it all myself. I need to realize the value of other people's input and perspectives and not focus so much on my own answers as the right answer.*

Collaboration becomes part of the balancing that is done between task and the relational aspects of a group. Balancing is more fragile in a technology-mediated environment where students are juggling classes, work, family, and personality preferences, and this may be transparent to other members in the group. Some groups that focus on the task and lose sight of the relational aspect are less effective than those that have a shared purpose and collaborate on all dimensions (Rothwell, 1998):

**Student:** *I am a hard worker and I work well in groups. I have been subjected to many different people and personalities because of my background. I am eager to do well, and I am willing to work with anyone who wants to do well and is not afraid to put the time in to do so.*

As the project proceeded, it was quite apparent that peers were learning from one another through debate, critical examination of artifacts (ER diagrams), and constructive suggestions, as the following exchange shows:

**Student1:** *I hope that is what you guys were thinking. I had a question about the top two entities on your diagram. I believe (sp) it is a one-to-one relationship... I assumed that the attribute was functioning as a foreign key, but then I realized that the primary key from the mandatory side needs to go to the optional side... If that's what you guys were thinking, just let me know and I will change the relation.*
**Student2:** *We meant to use [entity] throughout the diagram. We intended to use [key] as a foreign key in the entity Status.*

*Motivation and Support:* Another aspect of collaboration is providing motivation and support for classmates. This became a sub-theme related to the collaboration. From the messages provided, there is a strong sense of support for other students. Even with the informality and sarcasm, there is a sense that students care about others in the class. The message could feature a question of what type of internship a student may have, or express amazement regarding the fact that a student can be employed, have a family, and be a student all at the same time. This support seemed to provide motivation for students to continue, and perhaps to seek excellence. It also becomes a driving force for students to want to come back to an on-line space and further create a third place atmosphere.

**Student1:** *My POM internship was honestly a good experience and I really do recommend it. I feel I was at a disadvantage being a sophomore intern. It was a pilot program to see just how young can POM majors be picked for internships.*

**Student2:** *You may not want to hear this, but thanks to those of you that interned in the pilot group... ... [The company] has made significant changes in the internship program. Of course it is not exactly the same in all of the FABs but similar.*
**Student1:** *Actually I am glad to hear about the internship being even better. At least what we did helped them plan a better internship that you get more out of. I would only be upset if it hadn't gotten better each year!*

Interestingly, collaboration occurred not only within groups but also across groups throughout the semester. For example, students often worked together across team boundaries by commenting on the Entity-Relationship Diagram (ERD) of another team. By working with another team's diagrams, hidden assumptions made by the original formulators of the diagram could be unearthed. Contrary to our initial expectations (based our previous observations related to our students' competitive attitudes), the between-group collaboration was very supportive and not critical at all. Constructive suggestions and questions regarding the decisions made were more typical of the between-group interaction.

**Student:** *What is the primary key going to be for the PLATE_APP entity there are no candidate keys listed. Maybe enter a permit_ID entity?*
**Student:** *** We would suggest turning the Student_D into a subtype with overlap.*
**Student:** *If you have any comments or questions regarding this transform, please let us know.*

Group members collaborated, sharing knowledge on the content material. Each group varied on a continuum of learning, but most garnered sufficient knowledge for producing an adequate design. The across-group collaborative activities may be seen to be reflective of a learning organization or a community of practice. Members of such organizations contribute to and benefit from the shared knowledge. This knowledge is not contained within a particular team as is characteristic of traditional hierarchical organizations, which have minimal knowledge creating and sharing ability.

**5.1.3 Cohesiveness:** The final theme identified from the conversations of the students was cohesiveness. Defined as the common bonds or ties that unify the group, cohesiveness is essential to the development of a community and thus a third place (Anderson & Kanuka, 1997; Haythornthwaite, et al., 2000; Oldenburg, 1989). Cohesion in the group is represented by the harmony among the members. In a group environment, the ability to work toward a goal often requires the cohesion among the members (Postmes et al., 2000). This is especially true when tasks are complex and interdependent, and require mutuality and trust among members. With trust among group members, the cohesion builds comfort and the sense that the group is home away from home. Mere coordination among group-members through the use of referential symbols is not sufficient for collaboration in these cases; instead true collaboration can

occur only when group cohesion exists (i.e., individuals in the group feel a sense of closeness).

In our case, we could identify several instances of group cohesion among students:

> **Student:** *Thanks for the response. I look forward to kicking some serious butt in this class with you and Sam. I think we'll do great!*

The students in this case were well acquainted with each other from other courses, and had shared a common set of experiences, and this created a personal connection (Haythornthwaite, et al., 2000).

Communication is the key to discovering common bonds. During one conversation, two students discovered that they shared a common interest in Linux. Without the opportunity to participate in a dialogue, students would not have discovered this common interest, and thus, would not find it easy to develop the level of cohesion that was achieved in this case:

> **Student:** *Wow, It is always great to find a fellow Linux User. I have used linux for both a desktop environment as well as a server. However, lately I have been more intrigued by its server capabilities than anything else.*

This small thread of commonality led to a lengthy discussion of the uses and importance of Linux. More importantly, this common interest increased group cohesion.

It is important to point out that cohesion in a learning-community does not necessarily imply a consensus on all topics. Rather, the individuals knit cohesively in a learning community feel comfortable in surrendering their autonomy and their personal convictions for a favorable outcome of the group. Sharing leadership in the group creates greater commitment to the decisions of the group, and this further enhances individual students' communication and interaction skills (Meisel & Marx, 1999).

In many cases, cohesion was evident *within but not across* teams. For example, the charter of one of the teams explicitly stated members must not share project-related information with other groups.

> **Charter:** *... The team will not share information about our ideas or policies with other groups...*

It may be mistakenly deduced from the above quotation that an on-line community had not been successfully formed. Cohesion is often associated with the micro-level of our community. Competition among micro-units can and does, in many instances, override an overall cohesiveness for the macro level (Aquino & Reed II, 1998). Another important point emerged from our analysis related to cohesion. While technology creates the opportunity to become more global (in terms of interactions with other individuals), it is clear cohesion doesn't extend to all levels of the third place community.

In our study, individuals' interests seem to have coalesced with members of their project group, and not as much with the members outside their group or micro community. This finding is not at all inconsistent with the notion of a community—for example, we may have individuals in families, families in a neighborhood, and so on. While individuals in a neighborhood may develop relations with other families around certain issues (even collaborate on certain issues), the degree to which all individuals and families in a neighborhood share the same ideas and interests is not consistent. Yet, individuals from different families are able to live together as a social whole, learning from each other, and collaborating on issues of common interest (even though they may be competing on other issues)—the important point is that members of a community are able to co-exist harmoniously.

## 6. CONCLUSION

Imagine a local café having a number of available tables and chairs. On any given day, many students leave their classrooms, work places, or homes to visit the café. On some days, the group collects around a single large table discussing an upcoming exam. On other days, this group of students might divide into smaller groups of three or four, each sub-group sitting at its own table discussing a different topic. A person listening might observe one team discussing an upcoming project milestone. At another table, the discussion might focus on social plans for the weekend. The dialogue taking place among these team-members can stop and start, and go on for days or weeks as the individuals gather more information, think about the issues raised or take time for other responsibilities in their lives. There is no coffee served at this café, students are welcome to bring their own; and there are no requirements that shirts or shoes be worn. The manager of the café is always present, arranging the tables or planning the discussions, but rarely does the manager sit at the tables or get involved in the discussions. The emphasis is on the students, their tasks, and their relationships. Creating a third place can develop a sense of community for IS students by providing a neutral ground for conversation, a leveling space where everyone is equal, and is easily accessible and accommodating.

For many scholars, the difficulty of implementing a third place in cyberspace is a media richness issue. Computer-mediated communications are not rich enough to create psychologically meaningful domains of attachment, stability, and security (Sarker & Sahay, 2004). Others, such as Postman (1996), argue that the term community should not be used to represent on-line interactions. Postman contends that common obligation or responsibility is central to the application of community and is not present in on-line interactions.

On the other hand, it has been argued, invoking principles of hermeneutics, that computer-mediated communications can actually be richer in meaning (e.g., Lee, 1994). Many scholars have also expressed disagreement with Postman's arguments, pointing to evidence showing that communities

can be (and have been) created, many of which thrive in the on-line environment (Donath, 1999; Jones, 1997; Liu, 1999; Rheingold, 1993; Turkle, 1995). The earliest description of a virtual community is depicted in the WELL (Whole Earth 'Lectronic Link)(Rheingold, 1993); a group of people banding together with a common obligation to each other, forming a community–virtually. Space versus place distinction acknowledges that despite the apparent opposition in what the terms place and space imply, the concepts are very inter-related and difficult to separate (Tuan, 1977). An on-line space can acquire many of the characteristics associated with physical place.

Translating the physical components of a third place into an on-line environment is not direct. In a physical third place, the environment may be accessible to anyone who walks by– not so in an on-line environment. To access an on-line third place requires at least three aspects: a computer, an Internet connection, and browser software. In addition, the user would need to know where to look for a third place space such as a chat room or newsgroup, but the space alone may not fulfill the third place characteristics. Students using an on-line learning environment have curtailed the access and space issue but just participating in the on-line course may not create a third place. Conversations and interactions are foundational to a third place and are modified in an on-line environment. A text conversation is different from a face-to-face conversation in terms of the cues displayed as well as the way wit or sarcasms perceived. The communication may or may not be synchronous in a virtual setting, and instead of co-presence, individuals communicating need to develop and enact norms of virtual presence (Sarker & Sahay, 2004). Further, in the on-line space, it is challenging logistically to have participants jump between different "tables" of conversations wherein a physical space it is relatively easy to turn to a different table and engage in side conversations with other members of the larger community.

Interacting in and "hanging-out" in on-line third places has other differences. Participants of the on-line space must understand appropriate norms of on-line interactions, i.e., netiquette. If not, it is easy to offend another student by typing a response in all capital letters, inadvertently signaling screaming. Another challenge, different from the physical environment, is student encouragement to participate on-line while becoming familiar enough to understand future on-line interactions. A physical third place is a more natural space to interact whereas an on-line environment takes a little coercion getting students started (i.e., assignment activities to interact on-line). Incentives are provided to students such as earning participation points that may influence the hang-out atmosphere. Would students enter these spaces to participate and share knowledge without an incentive or without having experience in an on-line environment? What factors explain why (or why not) people hang out in on-line third place environments? How are these different from the set of factors explaining people's hang-out motivations and behaviors in physical third places? Clearly, additional research needs to be conducted to investigate these investigating these core issues.

Despite certain differences existing between on-line and physical third places, we believe that a well-designed, humanized, and inviting virtual space can serve many of the roles the physical third place, attributed by Oldenburg. We wholeheartedly agree with Oldenburg's assertion that a third place, especially in this age of increased social fragmentation, can serve important functions for people that are missing informal, conversation-based interactions from their life. Building an on-line third place for students can help teach them how to participate in an informal public life. More significantly, on-line third place communities help students acquire knowledge actively through co-construction, not just passively by acting as a receptacle of knowledge encoded in a lecture delivered in a traditional classroom. Further, the skills of adapting, developing relations, and collaborating with peers gained through participation in an on-line "third place" are likely to prove critical in their future careers. The most significant reason for implementing third places for students is that there is inherent value to being sociable, in learning from peers, and in developing a sense of community. The sooner we can get students to recognize this proposition, the more meaningful their college education will be for them.

## 7. REFERENCES

Agar, M. (1986). *Speaking of ethnography*. Beverly Hills: Sage.

Anderson, T., & Kanuka, H. (1997). On-line Forums: New platforms for professional development and group collaboration. *Journal of Computer-Mediated Communication, 3*(3).

Aquino, K., & Reed II, A. (1998). A social dilemma perspective on cooperative behavior in organizations. *Group & Organization Management, 23*(4), 390-413.

Berge, Z., & Collins, M. (1995). *Computer-mediated communication and the on-line classroom in distant education*. Retrieved Oct. 12, 2000, from http://www.ibiblio.org/cmc/mag/1995/apr/berge.html

Block, S. (2003). More must earn while they learn. *USA Today*, pp. 1b.

Bosworth, K., & Hamilton, S. J. (Eds.). (1994). *Collaborative learning: underlying processes and effective techniques* (Vol. 59). San Francisco: Jossey-Bass.

Brilhart, J. (1978) *Effective group discussion*, Iowa: Wm. C. Brown Company Publishers.

Bruffee, K. A. (1984). Collaborative learning and the "Conversation of Mankind". *College English, 46*(7), 635-652.

Bruffee, K. A. (1993). *Collaborative learning: Higher education, interdependence, and the authority of knowledge*. Baltimore: The John Hopkins University Press.

Burbules, N. C., & Bruce, B. C. (2001). Theory and research on teaching as dialogue. In V. Richardson (Ed.), *Handbook of Research on Teaching* (4th ed.). Washington, DC: American Educational Research Association.

Burke, K., & Chidambaram, L. (1999). How much bandwidth is enough? A longitudinal examination of

media characteristics and group outcomes. *MIS Quarterly, 23*(4).

Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (Second ed.). Thousand Oaks, CA: Sage Publications.

Couch, C. J. (Ed.). (1996). *Information technologies and social orders*. New York,: Aldine de Gruyter.

Davenport, T., & Prusak, L. (1998). Working knowledge. *Executive Excellence, 15*(9), 10.

Davis, M. (1997). Fragmented by technologies: A community in cyberspace. *Interpersonal Computing and Technology: An Electronic Journal for the AECT, 5*(1-2), 7-18.

Dennis, A. R., Aronson, J. E., Heninger, W. G., & Walker II, E. D. (1999). Structuring time and task in electronic brainstorming. *MIS Quarterly, 23*(1), 95-108.

Donath, J. S. (1999). Identity and deception in the virtual community. In M. A. Smith & P. Kollock (Eds.), *Communities in Cyberspace*. New York: Routledge.

Gabelnick, F., MacGregor, J., Matthews, R. S., & Smith, B. L. (Eds.). (1990). *Learning communities: Creating connections among students, faculty and disciplines* (Vol. 41). San Francisco: Jossey-Bass Inc.

Garton, L., Haythornthwaite, C., & Wellman, B. (1997). Studying on-line social networks. *Journal of Computer-Mediated Communication, 3*(1).

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: strategies for qualitative research*. Hawthrone, NY: Aldine Publishing Company.

Gyllenpalm, B. (2002). A Virtual Knowledge Café. In K. E. Rudestam & J. Schoenholtz-Read (Eds.), *Handbook of on-line learning: Innovations in higher education and corporate training*. Thousand Oaks: Sage Publications.

Hall, H., & Graham, D. (2004). Creation and recreation: motivating collaboration to generate knowledge capital in online communities. *International Journal of Information Management, 24*(3), 235-246.

Hamman, R. (2000). *Introduction to virtual communities research and cybersociology magazine*. Retrieved April 26, 2000, 2000, from http://members.aol.com/Cybersoc/is2intro.html

Harasim, L. M. (Ed.). (1990). *On-line Education: Perspectives on a new environment*. New York: Praeger Publishers.

Haythornthwaite, C., Kazmer, M. M., Robins, J., & Shoemaker, S. (2000). Community development among distance learners: Temporal and technological dimensions. *Journal of Computer-Mediated Communication, 6*(1).

Heaton, L., & Taylor, J. R. (2002). Knowledge management and professional work: A communication perspective on the knowledge-based organization. *Management Communication Quarterly, 16*(2), 210-236.

Hillery, J., George A. (1955). Definitions of community: areas of agreement. *Rural Sociology, 20*(2), 111-123.

Johnson, D. W., & Johnson, R. T. (1994). *Learning together and alone: Cooperative, competitive and individualistic learning* (4th ed.). Boston: Allyn and Bacon.

Jones, Q. (1997). Virtual-Communities, virtual settlements, & cyber-archaeology. *Journal of Computer-Mediated Communication, 3*(3).

Kenway, J., & Bullen, E. (2000). Education in the age of uncertainty: An eagle's eye-view. *Compare, 30*(3), 265-273.

Kirkman, B. L., Jones, R. G., & Shapiro, D. L. (2000). Why do employees resist teams? Examining the "resistance barrier" to work team effectiveness. *International Journal of Conflict Management, 11*(1), 74-92.

Kowch, E., & Schwier, R. (1997). Considerations in the construction of technology-based virtual learning communities. *Canadian Journal of Educational Communication, 26*(1), 1-12.

Lee, A. S. (1994). Electronic mail as a medium for rich communication: An empirical investigation using hermeneutic interpretation. *MIS Quarterly*, 18(2), 143.

Lenning, O. T., & Ebbers, L. H. (Eds.). (1999). *The powerful potential of learning communities: Improving education for the future*. Washington, D. C.: The George Washington University, Graduate School of Education and Human Development.

Lesser, E. L., & Storck, J. (2001). Communities of practice and organizational performance. *IBM Systems Journal, 40*(4), 831-841.

Lipnack, J., & Stamps, J. (1999). Virtual Teams: The new way to work. *Strategy & Leadership, 27*(1), 14-19.

Liu, G. Z. (1999). Virtual community presence in Internet relay chatting. *Journal of Computer-Mediated Communication, 5*(1).

Locke, K. (2001). *Grounded theory in management research*. London: Sage Publications.

Marshall, C., & Rossman, G. B. (1999). *Designing qualitative research* (Third ed.). Thousand Oaks, CA: SAGE Publications.

Meisel, S., & Marx, B. (1999). Screen to screen versus face to face: Experiencing the differences in management education. *Journal of Management Education, 23*(6), 719-731.

Nelson, K. M., & Cooprider, J. G. (1996). The Contribution of Shared Knowledge to IS Group Performance1. *MIS Quarterly, 20*(4).

Newman, F. (2000). Saving higher education's soul. *Change, 32*(5), 16-23.

Oldenburg, R. (1989). *The great good place*. New York: Marlowe & Company.

Postman, N. (1996). *The end of education: Redefining the value of school*. New York: Vintage Books.

Postmes, T., Spears, R., & Lea, M. (2000). The formation of group norms in computer-mediated communication. *Human Communication Research, 26*(3), 341-371.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.

Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. Reading: Addison-Wesley Publishing Company.

Rothwell, J. D. (1998). *In mixed company: Small group communication* (3rd ed.). Fort Worth: Harcourt Brace & Co.

Rovai, A. (2002). Building sense of community at a distance. *International Review of Research in Open and Distance Learning, 3*(1).

Sarker, S., Lau, F., & Sahay, S. (2001). Using an adapted grounded theory approach for inductive theory building about virtual team development. *The Data Base for Advances in Information Systems, 32*(1), 38-56.

Sarker, S., & Sahay, S. (2003). Understanding Virtual Team Development: An Interpretive Study. *Journal of the Association for Information Systems, 4*(1).

Sarker, S., & Sahay, S. (2004). Implications of space and time for distributed work: an interpretive study of US-Norwegian systems development teams. *European Journal of Information Systems, 13*(1), 3-20.

Schneider, S. J., Kerwin, J., Frechtling, J., & Vivari, B. A. (2002). Characteristics of the discussion in online and face-to-face focus groups. *Social Science Computer Review, 20*(1), 31-42.

Schuler, D. (1996). *New community networks: Wired for change.* New York: Addison-Wesley Publishing Company.

Selfe, C. L., & Meyer, P. R. (1991). Testing claims for on-line conferences. *Written Communication,* 8(2), 163-192.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Doubleday/Currency.

Smith, B. L., & MacGregor, J. (1994). What is collaborative learning? In D. F. Halpern (Ed.), *Changing College Classrooms: New Teaching and Learning Strategies for an Increasingly Complex World* (pp. 9-22). San Francisco: Jossey-Bass.

Speier, C., Valacich, J. S., & Vessey, I. (1999). The influence of task interruption on individual decision making: An information overload perspective. *Decision Sciences, 30*(2), 337-360.

Stiles, M. J. (2000). *Effective learning and the virtual learning environment.* Paper presented at the EUNIS 2000, Poznan, Poland.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: grounded theory procedures and techniques.* Newbury Park, CA: SAGE Publications, Inc.

Tuan, Y. F. (1977). *Space and Place: The Perspective of Experience.* Minneapolis, MN: University of Minnesota Press.

Turkle, S. (1995). *Life on the screen: Identity in the age of the Internet.* New York: Simon & Schuster.

Van Maanen, J. (1988). *Tales of the field: On writing ethnography.* Chicago: University of Chicago Press.

Varve, T., Adams, S. G., Pridie, S. J., & Ruiz Ulloa, B. C. (2004). Team effectiveness and individual Myers-Briggs personality dimensions. *Journal of Management in Engineering, 20*(4), 6.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* Cambridge: Cambridge University Press.

Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice: a guide to managing knowledge.* Boston: Harvard Business School Press.

**AUTHOR BIOGRAPHIES**

**Lori Baker-Eveleth, Ph.D.,** is an Assistant Professor of Information Systems at the University of Idaho, Moscow, Idaho. Her current research interest is in third place development, technology acceptance, and laptop and exam software use in the classroom. She has published recent articles in the Journal of Informatics Research Education and the Journal of Education for Business. Lori received her Ph. D. from Washington State University.

**Suprateek Sarker, Ph.D.,** is an Associate Professor of Information Systems and International Business Institute Interim Director at Washington State University, Pullman. He has served as visiting professor at Copenhagen Business School, Denmark, Helsinki School of Economics, Mikkeli, Finland, Cesar-Ritz University Center, Switzerland, and National Economics University, Vietnam. Suprateek received his Ph.D. from the University of Cincinnati. His research primarily utilizes qualitative methodologies to study IT-enabled organization change, systems implementation, global IS management, and virtual and mobile collaboration. His research has been published in (or is forthcoming in) outlets such as the Journal of the AIS, Journal of Management Information Systems, European Journal of Information Systems, IEEE Transactions on Engineering Management, IEEE Transactions on Professional Communication, Information & Management, Data Base, Journal of Strategic Information Systems, Information Resources Management Journal, Communications of the ACM, Communications of the AIS, and ICIS Proceedings. He was recently invited to serve as an Associate Editor of MIS Quarterly.
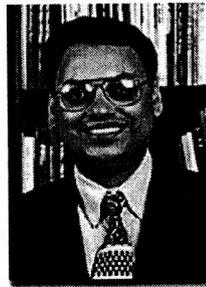
**Daniel M. Eveleth, Ph.D.,** is an Associate Professor of Management and Human Resources at the University of Idaho, Moscow, Idaho. Daniel received his Ph.D. from the Washington State University. His current research interests include expertise development, knowledge management, analogical reasoning, and using technology to enhance pedagogy.

Information Systems & Computing
Academic Professionals

EDSIG
*Serving Information Systems Educators*
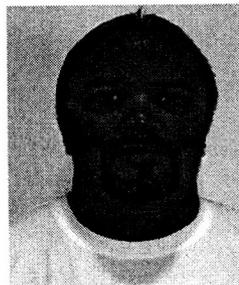
**STATEMENT OF PEER REVIEW INTEGRITY**

All papers published in the Journal of Information Systems Education have undergone rigorous peer review. This includes an initial editor screening and double-blind refereeing by three or more expert referees.