Intersecting communities of practice in distance education: the program team and the online course community

Ana-Paula Correia*

Center for Technology in Learning and Teaching, Iowa State University, USA

Niki Davis

College of Education, University of Canterbury, Christchurch, New Zealand

(Received date month 20**; final form date month 20**)

This article is a case study that aimed at understanding the dynamics of two complementary communities involved in a distance education graduate program: one community of practice formed by the instructors and instructional developers, who designed and developed the program, and another created by the students and instructor in one of the online courses. The relationship between both communities and the evolution that occurred within the online course are analyzed. Emergent themes are discussed and recommendations are made for similar contexts and communities.

Keywords: community of practice; online learning community; graduate education; identity

* Corresponding author. Email: acorreia@iastate.edu
Introduction

In their review of the literature Larramendy-Joerns and Leinhardt (2006) noted the growth of online courses in post-secondary education and emphasized the potential contributions of online education to the democratization and advancement of the scholarship of teaching. Distance education and online learning have impacted both organizational and pedagogical practices (Moore, 2007). Within the organizational level there is a decoupling of pedagogical responsibilities across instructors, designers, technology coordinators, administrators, and students (Harms, Niederhauser, Davis, Roblyer, & Gilbert, 2006; Natriello, 2005). Such changes affect both the organization and the individual and will therefore impact instructors’ community of practice and learning communities. Good practice in online education recommends pedagogy that supports the development of learning communities (Salmon, 2005). At the same time supporting the development of learning communities is essential to promote and sustain pedagogical change during the early stages of teaching online (Davis & Niederhauser, 2005). Because the changes are so complex, Davis’ (in press) ecological perspective is valuable to better understand the need for teacher leadership in the adoption of information and communication technologies (ICTs). This perspective clarifies the need for multiple levels of adaptation due to the fact that each classroom ecology is nested within that of its department, school, district, and nation. Thus the teacher may be viewed as the keystone species of the classroom ecology, and all teachers within an organization are strongly influenced by the need to belong within the ecology of their department and school. In addition, each student learns within the class ecology but the evolution of his or her professional practice is also subject to the need to retain a fit within his or her own
Ecological perspectives in education are built upon socio-cultural processes and the social learning theory of Wenger (1998) offers a solid framework to analyze changes within one or more ecologies. This article examines the socialization of a keystone species, an instructor of an online course for teachers, and other professionals, who are part of distinct ecologies. As Tu and Corry (2001) pointed out, in their article advocating a paradigm shift for online community research, there is an acute need to examine the development of an online self as opposed to the end products of online communities.

The purpose of this case study was to understand the dynamics of two complementary and interacting ecologies, each potentially incorporating a community of practice. The first is a community of practice formed by a group of instructors and instructional designers who designed and developed for the first time a master’s of education (via distance mode) at a large research university in the Midwestern United States. The second is the online community created within one of the courses in this graduate program. The communities intersected with each other and with other communities at different points and evolved in different directions. An analysis within and between the communities is conducted. Contextual and membership issues are explored and recommendations are made for similar contexts and communities.

**Community of practice and learning communities**

This study relies on the concept of communities of practice described by Lave and Wenger (1991, p. 98):

[Community does not] imply necessarily co-presence, a well-defined identifiable
group, or social visible boundaries. It does imply participation in an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities.

But how is this definition related to the educational arena? Barab and Duffy (2000, p. 41) explained in great detail what characteristics of a community are relevant to the educational process (see Table 1).

PLACE TABLE 1 ABOUT HERE

Barab and Duffy (2000) gave particular emphasis to the “reproduction cycle” as one of the main requisites of a community. Communities are in constant renewal, with new members shifting from a peripheral participation to full membership through a process of enculturation (p. 41). Lave and Wenger (1991) described “legitimate peripheral participation” as:

[a] way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. A person’s intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a socio-cultural practice” (p. 29).

Aligned with the concept of communities of practice, the framework of Henri and Pudelko (2003) was chosen to understand and analyze learning activities and identity construction in online communities. Henri and Pudelko created a typology for these
communities by examining discussion forums, chats and websites as social gathering virtual spaces. They proposed four different types of communities depending on two variables: (a) the strength of the social bond, and (b) the gathering’s intentionality. The latter is defined as “the groups’ intentionality that expresses the will, more or less marked, to create a strong social bond and to undertake an activity with a learning goal” (p. 477). These four types of communities (pp. 478–484) are from the least socially cohesive and intention to gather to the most cohesive and socially bonded (see Figure 1):

1. **Community of interest.** Members gather around a common topic of interest. It is low in both strength of social bond and the gathering’s intentionality.

2. **Goal-oriented community of interest.** Members gather around a common topic of interest and have a specific outcome to be achieved usually in a particular timeframe (e.g., task-force). It is higher in strength of social bond and the gathering’s intentionality than the community of interest.

3. **Learners’ community.** This community operates in institutional contexts and is composed by students, who depend on instructor(s) for guidance. It is medium to high in strength of social bond and the gathering’s intentionality.

4. **Community of practice.** It is organized around professionals, who work in organizations where they perform similar activities. It is high in both strength of social bond and the gathering’s intentionality.

The different types of communities exhibit different levels of members’ involvement, offerings of mutual help and support, sharing of meanings, and identity construction (Henri & Pudelko, 2003).
Unlike Wenger (1998), Henri and Pudelko (2003, p. 476) clarified that while “all virtual communities are learning communities because their members learn while taking part in their activity,” not all of them are communities of practice. Although learning communities are often mistakenly identified as communities of practice, especially in articles about online courses, there are clear differences between them (Henri & Pudelko, 2003). While learning communities use participation in practice as a way to learn (Barab & Duffy, 2000), communities of practice create learning from real practice in working contexts and operate in similar conditions. According to Wenger (1998), a community of practice is created around three fundamental elements: (a) shared understanding, which is continually renegotiated by its members, (b) mutual engagement, which brings members together into a cohesive group, and (c) a shared repertoire of common resources, which is the result of a shared practice (e.g., vocabulary, artifacts, procedures). The body of knowledge, representations, and methods used by the community in its practice assist its members to develop shared knowledge, to respond to disagreement, and manage conflict.

As noted earlier, a recommended practice for online pedagogy is to support the development of a community of learners (Larramendy-Joerns & Leinhardt, 2006; Lynch, 2002; Salmon, 2005). In addition, authentic activities and group work are frequently advocated as a means to developing social bonds among the learners and reducing the
opportunity to cheat (Lynch, 2002). Similarly, learning activities for online courses need to be designed to allow learners to apply what they are learning or have learned in real educational contexts, provide opportunities for reflection, and offer instructor facilitation (Correia, 2008b). Conflict is a common phenomenon in group interactions but, in the context of online environments when mediated by technology, conflict management practices change (Correia, 2008a; Poole, Holmes, & DeSanctis, 1991; Riopelle et al., 2003).

Correia’s (2008a) case study on the impact of ICT-rich environments on team conflict showed that technologies played a dual role in the conflict management of teams. ICTs seemed to facilitate conflict management by offering a formal means of communication, making communication more effective with minimal wasted or unnecessary effort, and creating opportunities for more thoughtful reactions with chances for reflection on the content. However, ICTs also aggravated conflict, specifically when strategies for use were imposed, when team members became blunt and forthright, and when misinterpretations occurred because of a differing sense of urgency in replying to emails.

In summary, the literature on online education tells us that changes in pedagogical and organizational practice are required and such changes may best be viewed as changes in interacting and nested ecologies including those of the department, distance education graduate program, and online courses. Further, the literature recommends that online graduate education include group work on authentic projects that relates to students’ interests; that group work in an online environment may be more problematic even though it has the potential to increase the support for individual learners and the development of a community of practice. Finally, Henri and Pudelko (2003) have
provided a useful framework for understanding activity in online communities, which are part of the evolution of the ecologies analyzed in this article in terms of types of communities.

**The research approach**

Due to the exploratory nature of this research, a naturalistic case study (Lincoln & Guba, 1985) was used to frame this study. The purpose was to understand the dynamics of two complementary and interacting communities in the context of a distance education graduate program. A story-like style was chosen to present this case. The story starts with an analysis of the community of practice formed by the program instructors and instructional developers and it is followed by an analysis of the community of learning created during one of the online courses. The characters are the participants of the study and they are introduced in the next section of this article.

**Data collection methods**

Data collected included (a) direct observations of program team meetings (this is the group of instructors and instructional developers who designed and developed the distance-mode master’s of education; (b) analysis of documentation related to the development of this graduate program; (c) analysis of the online course content in WebCT, especially the discussion threads and students’ reflective journals; and (d) the reflective journals of the authors of this article.

Using Schön’s (1983, 1987) perspective of practice-as-inquiry, this study was conducted mainly to inform and change ongoing practice. The authors reflected not only while they were acting, but also later on the actions themselves. As Clandinin and
Connelly (2000) claimed, the main evidence consists of the narrative reconstruction of incidents, which is believed to be important for an understanding of who the authors are. The authors of this article used this strategy to better make sense of their roles as distance education instructor (Correia) and program team leader (Davis), in addition to course designers, team facilitators, and program developers.

**Data analysis**
The data analysis consisted of on an iterative and inductive process of analysis in order to formulate a pair of qualitative accounts. Through a careful analysis of the data, trends and discrepancies were found and categories emerged. The data analysis was done manually by reading and underlining, cutting, and pasting.

**Validity**
Methodological triangulation was used as a procedure to support validity of the data collected (Stake, 1995). The data was collected through observations, document analysis, and reflective accounts from students and instructors as ways to increase the confidence of the interpretation. Agreement among data (convergence) as well as inconsistencies and contradictions (divergence) were found as a way to uncover new issues and interpretations. Previous drafts of this article were also reviewed by colleagues and blind peer reviewed.

**Ethics and subjectivity**
According to Guba and Lincoln (1998), ethics are intrinsic to the naturalistic approach because of the inclusion of participants’ and researcher’s values in the research. However, the close personal interactions required by this approach often create
confidentiality issues. To prevent the identification of the students, pseudonyms are used throughout this article. For the program team members, real names are used with their permission.

This study evolved from the perspective of the authors of this article, who were also a leader and members in the program team and instructors for online courses. Therefore, the story that is being told in this article is influenced by their personal perspectives and particular lenses, and their subjectivity acknowledged. According to Stake (1995), the case study researcher needs to be able to:

let the occasion tell its story, the situation, the problem, resolution or irresolution of the problem. Often, it seems there is no story, that is, nothing relating much to the issues, nothing that opens up the depths of the case. Some researchers find stories when others do not, enough to be worrisome. How much are they making it up? Most readers want the straight story, but they also expect researchers to put themselves into the interpretation, finding meanings that others cannot grasp (p. 62)

**The case of two complementary communities**
This study took place at a large research university in Midwestern United States, with a recognized leading program of ICTs in teacher education (Davis, 2003). This same university offers a master’s of education (via distance mode) in curriculum and instructional technology (http://ctl.t.iastate.edu/~citmed), which is primarily designed for teachers of kindergarten to 12th grade (K-12) across rural Midwestern United States. This master’s is a three-year program consisting of 32 credits, which is offered in a learning community environment to a cohort of students every two years. Each cohort has 8 to 20 students, who are maintained as a group for the entire program. They start the program at the same time and, when everything goes as planned, they end it at the same time.
Each online course was planned to have between one and three meetings on-campus to develop a strong sense of community, to encourage students to support one another to continue their degree to its completion. In addition to the students in this cohesive group (named here as the cohort), some on-campus students pursuing the on-campus version of the master’s were also allowed to enroll in online courses (named here as non-cohort students). This degree program is housed in the Department of Curriculum and Instruction and the Center for Technology in Learning and Teaching (http://www.ctlt.iastate.edu). CTLT’s mission is to provide leadership in the use of ICTS in teacher education through research, development, and service within a pluralistic and global society. The faculty and staff of the center were the program team that created this new online version of their on-campus master’s of education, which built upon previous collaborative work supported by CTLT and its community.

The online course analyzed in this case study (named here as C I 503) taught by the corresponding author, Ana-Paula Correia, was the fifth course in the sequence of the master’s of education (via distance mode) program. It was selected for this case study because of its uniqueness that is related to three factors:

1. The instructor had recently joined the program team.
2. More than half of the students enrolled in the course were on-campus students added to the cohort of distance education students.
3. It was a project-based team-oriented online course.

In C I 503, teams of two to three students designed and developed instructional experiences to meet needs identified by the instructor through contacts in the local
community and in professions. The value of online learning activities with real-world instructional needs is explored in Correia (2008b). The teams were encouraged to create an experience that either addressed a social need or connected in some way to their community, preferably targeting an underprivileged or underrepresented audience. In addition to the topic to be taught, teams were responsible for identifying the target audience (the learners) and a real-world context (the situation in which the learning would occur). The skills necessary to carry out such a project included not only knowledge of instructional design models, processes, and techniques, but also competence in applying this knowledge to novel situations and the ability to work as part of a design team. Students had to manage their projects to meet aggressive deadlines while figuring out the best ways to manage their teams, which operated mainly at a distance. The instructor acted as an expert in instructional design and as a team facilitator. Teams could ask her for help at any time as they progressed with their projects. Live chats and online discussions were critical for assisting the students. Two one-day on-campus sessions were included in the course to share professional practices in instructional design, socialize, and build community. The course was hosted on the course management and delivery system, WebCT.

Participants

The program team
The members of this community were part of the CTLT: Niki Davis is a professor, and the center director at the time of this study; Ann Thompson is a university professor and
the center founding director; Clyciane Michelini is the instructional developer specialist who provides support to faculty on teaching, research, and service; and Ana-Paula Correia is an assistant professor with the center. In addition to these four members the team has three other faculty (associate and assistant professors) and two staff members. They all share a passion to improve education through teacher education with the effective use of technologies.

The creation of the distance education version of the on-campus master’s degree required many changes to the program team’s common practices and procedures, particularly because Niki Davis was the only team member with a strong experience in distance education. Because she recognized the challenge, Niki decided that the community of practice should be maintained and, along with other members including Ann Thompson, she actively sought to maintain successful daily practices. Much of this “shared knowledge system” in the CTLT was tacit knowledge, which was still being uncovered for her. It was probably slow to emerge because most of Niki Davis’ career has been in United Kingdom education system, where graduate education is quite different and most of the discussions about this variation of the master’s degree occurred during the second year of her first post in the United States.

**The online learning community of C I 503**

This course comprised of a community of 17 students (4 males and 13 females) ranging in age from 22 to 45 years old. Eight of these students, part of the first cohort pursuing the master’s of education (via distance mode), were elementary and secondary-level teachers teaching a variety of topics, including history, English, art, and technology. The
remaining nine students were on-campus master’s and doctoral students in curriculum and instructional technology taking this course as part of their program of study, and referred to here as non-cohort students. The online version of the course was especially attractive to some of these students because they had full-time jobs that required significant time commitments and offered less flexibility to attend face-to-face courses. These students were involved in a variety of different professional activities: this group of professionals included an instructional designer at the College of Veterinary Medicine, a faculty development officer for the university, a teaching assistant for undergraduate courses, and a distance education specialist at the College of Agriculture.

When Ana-Paula Correia taught this course, she was a newly hired assistant professor and had just completed her doctoral degree in instructional technology. Although she had extensive experience in instructional design for diverse contexts in North America and southern Europe, this was her first time leading an online class in the North American context. Her teaching philosophy and approach to the course emphasized two core types of activities:

(1) *Working in real-world situations.* People learn better when they are actively engaged in learning tasks that are directly related to their needs and interests. Most of the learning in this course occurred within the context of projects and situations similar to those that students were experiencing or would be likely to encounter in real-world contexts.

(2) *Working as a team member.* In addition to introducing models and theories of
instructional design, this course provided students with concepts, tools, and
techniques to help them learn how to work through the design process in teams.
The course required that participants be active members of their design teams as
well as of the e-learning community formed by all of the participants in the
course.

**Emergent categories**

Based on the data analysis four categories were identified. The following discussion is
organized around these categories that emerged as a result of the analysis of the data.
They are:

- the program team as a community of practice
- the pre-existing and the new online community in C I 503
- the evolution of the online community in C I 503
- intersections between program team and the online course community.

**The program team as a community of practice**
The CTLT grew out of the audiovisual media center to become a center that is recognized
internationally for its service, innovation, and research. In Wenger’s (1998) terms the
most recent set of reified objects arises for the program team from this extension of the
master’s of education (via distance mode). The Technology Mentoring Program has been
another important reification process, consistently giving form to CTLT practices for
more than 14 years. Ann Thompson, CTLT founding director and lead technology
mentor, provides graduate students opportunities to mentor the department faculty members on using ICTS. In her own words, “the majority of the faculty in our department have made significant advances in their adoption of technology and their ability to use technology to improve learning and teaching in their classes” as a result of the Technology Mentoring Program (Thompson, Chuang, & Sahin, 2007, p. 10).

The discussions among the CTLT community preceding the first online course brought individual and group passions to the fore and clarified for each member “their social and professional definition of their trade, to reinforce their identity, and to enrich or perfect their daily practice while contributing to the practice of the community” (Hernri & Pudelko, 2003, p. 483). For example, one of the team member’s expertise is clearly linked to K-12 schools in the state and it was she who had spoken most passionately that the program team seemed to be serving international students better than teachers in the state. Such conversations and debates during regular program team meetings shared concerns and common interests and outlined a lack in CTLT’s “zone of influence.” Zone of influence is defined in relation to other communities or to the institution or organization (Hernri & Pudelko, 2003, p. 483). By providing a distance education version of the already successful on-campus version of the master’s degree, the CTLT’s zone of influence was expanded. One of Ann Thompson’s favorite expressions is that “individuals should be supported to pursue their passions” (personal communication, February, 2004), which had made clear to Niki Davis that the new version of the master’s program should continue to draw upon the team’s multiple fields of expertise and associated variety of pedagogical approaches. As a result, the program team was able to decide that the online courses would be converted one at a time from the on-campus
version with an intensive instructional development support by one of the CTLT staff members, Clyciane Michelini, who is a graduate of the on-campus master’s degree program with a background in design, technology, and curriculum.

In some ways, as the new master’s program was taking form, the program team invented new forms of involvement that developed collaborative relationships with outside communities while it also built new artifacts (the new online courses and components within the courses) and interpretive frameworks. This experience gave the program team the opportunity to explore practice within the affordances of distance education, including WebCT, which has been adopted by the university to support online learning and learning communities. For instance, Chinnappan’s (2006) study with beginning mathematics teachers showed that discussion in WebCT “not only affords continuous learning from, and mentoring by, one’s peers, but also has the potential to buttress others’ ideas and understandings that they have acquired from their tertiary education courses, and help them continue on a productive journey as practitioners” (p. 367).

Clyciane Michelini became a mediator between the successive iterations of this practice in courses led by each faculty acting as instructor. The two instructors, who did not use her support, including Niki Davis, did consult many times with her to make sure that they were not disrupting the process with outlandish practices. During the process Clyciane Michelini moved from being a more peripheral member of the team to a central role in the program team’s community of practice.
Normally a member of faculty has complete responsibility for each course and for advising on an individual student’s program as that student’s major professor. In general, students are responsible for managing course registration and other bureaucracy. During the program orientation, the program team stressed how much distance education changes educational responsibilities, which is another way of viewing change in this community of practice. Over time Clyciane Michelini took on the responsibility for program management and advice, including organization of much of the bureaucracy of students’ registration of courses and completion of forms required by the department and graduate studies office. This was a change of responsibility normally undertaken by the students with advice from a member of faculty in the role as their major professor and chair of the three-member committee for each student’s program of study. At the same time, the whole community has revisited and clarified or changed some practices. For example, the program team agreed to eliminate the need for the student’s entire committee to meet face-to-face with the student to discuss a proposal for a creative component (the final degree project). This practice also seems to be spreading to the on-campus master’s program.

The community’s courses were presented with success at the national WebCT conference by Niki Davis and Clyciane Michelini, when all instructors gave permission
to showcase the program with online access to their courses and related materials (Davis & Michelini, 2006). In the process of that review it became obvious that all instructors had adopted WebCT and had continued to use it in their on-campus courses, which shows that the program team had adopted additional technological and pedagogical practice as a result of the master’s of education (via distance mode). Therefore, new reified artifacts including boundary objects (WebCT courses) had appeared and were celebrated by the community. The program team is thus identified as a highly cohesive group with a very strong intention to gather and remain an evolving community of practice.

The pre-existing and the new online community in C I 503
The community created by the online course was a community of learners: it was composed of the students taking this course, both cohort and non-cohort, and the lead learner, their instructor. But unlike most of online learning communities, this course evolved into an internally divided community. The split occurred between the cohort and non-cohort students.

The cohort students had created a professional community with a shared K-12 teaching practice. They had developed a strong sense of community as the first cohort of the master’s of education (via distance mode), having started their degree over a year earlier in June 2004. These eight students established a strong interpersonal and professional relationship, sharing their challenges (balancing full-time teaching with graduate school) and victories (moving forward on their master’s degree and applying much of what they were learning on their own classrooms) as the first cohort. Conversely, the nine non-cohort students taking this course had no personal relationship
with the cohort or between themselves. This difference, plus feelings of disempowerment exhibited by the cohort members, who unexpectedly became the minority group, created a clear scission between cohort and non-cohort students.

As mentioned before, for most of the course activities students had to work as part of a design team. Often in these teams, students are randomly assigned to groups and are unfamiliar with their teammates’ skills and personalities. Having this in mind, the instructor decided to give the students the opportunity to choose their own teammates. This situation created an explosive controversy within the online discussion topic anonymous course feedback, which became the most popular forum for the course large-group discussion. The conflict emerged with a posting begging the instructor to assign students to teams. The dialogue escalated with students venting two opposing views on how teams should be formed during the first weeks of the course: team members selected by the instructor versus team members freely chosen among the students in class. The following excerpts clearly illustrate this disparity of views, which created an overt conflict:

To avoid any hurt feelings, I think that you, Ana, as the instructor, should create the teams. This would also reflect real-world situations where a project leader brings together a team. This sometimes causes conflict, but sometimes that is not such a bad thing. I never encountered a project where teams selected themselves. That is not how it works outside of academia. (Anonymous, WebCT Anonymous Course Feedback, September 2005)

In the real world, you sometimes have to be honest and tell someone they are not working out very well. Just tell your teammates you wish a change. End of story. You want a different experience. Whatever. Take responsibility for your concerns and be direct about it. Also, be ready to take this honest feedback. How
is that for real-world application? Academia is not the cause of your problems. Do we wait for others to try to dictate our actions? (Anonymous, WebCT Anonymous Course Feedback, September 2005)

Are you kidding? What universe do you live in where you can tell a cohort member that they just aren't fitting in, or you can tell a team that you want a change? That is the responsibility of the LEADER. Who is the leader? I think Ana needs to nip this in the bud toot sweet. (Anonymous, WebCT Anonymous Course Feedback, September 2005)

Vision is the responsibility of the leader. Encouraging others to take part in and support that vision is the responsibility of the leader. Who is a leader? YOU are, if you want to be. We all can be. … I am certain that there is a way we can work this out so that we can all have our needs met (for the most part). Maybe we need to figure out what our goals are for this project and what the order of importance is for those goals. Do we want to focus on developing interpersonal, professional relationships? Do we want to focus on learning Instructional Design principles? Do we want to focus on creating an awesome project? It seems that whichever of these takes top billing that is how we design the instructional methods for the next half of the semester. I could be wrong. I am sorry if this is overly caustic, but I am getting frustrated by this discussion. (Signed by Wanda, a non-cohort member, WebCT Anonymous Course Feedback, September 2005)

It is evident from these discussion messages that students used the topic to voice issues beyond group formation strategies. These issues, including leadership, professional responsibility, working relationships, and membership, confirmed a divergence of views, which also embodied the scission between cohort and non-cohort students. This conflict in the course caused Ana-Paula a great deal of concern as she felt that she was failing her course. At the same time, having researched conflict mediated by ICTS, she knew that it was necessary for the teams to work through and learn from their conflict. Consultations
with members of the program team, including with Niki Davis, who was her mentor, were reassuring and she settled the team formation quite well by opting for a compromise. She first let students form their own teams and then assigned the remaining students. Her journal reads:

I am feeling quite exhausted and frustrated today. Nothing seems to work with the class. My decisions’ impact is so hard to predict as I cannot see my students’ faces or read their body language. I feel that I am in a dark room trying to find my way out by touching the walls that keep on moving. I miss having my students in front of me in the classroom. I miss the continuous and effortless face-to-face interactions. (Ana-Paula’s journal, 20 September 2005)

One of the requirements for the course was a four-page individual reflective paper that included a brief summary of each student's experiences in the course and some discussion of the professional or personal insights gained. Student were asked to reflect on what they had learned from the team project (both in terms of subject matter and teamwork processes) and how this helped them to understand the course content, broaden their understanding of instructional design, and enhance their practice as educators. Students were also encouraged to voice their opinions about the course in general and invited to make suggestions for improvements. An analysis of these reflections shows that students unanimously agreed that they had learned a great deal in CI 503, not only about instructional design but also about being a successful distance education team player. However, the complexity of the real-world instructional projects and the complicated nature of the online teamwork are evident in the student reflections, where students voiced contradictory feelings and discussed different learning foci, challenges,
and victories. This is how one student described her learning experience:

All in all, taking this class has turned out to be a unique and astonishing experience. I had many ups and downs but dealt with them as best as I could and now it is all over. This class has helped me not only gain better understanding of ISD [Instructional Systems Design] but has taught me many lessons in life. One is, expect the unexpected. Second, learning to work with others is key in the job world. Finally, balancing my life was also necessary. (Suzanne, final reflection, December 2005)

The evolution of the online community in C I 503
Unlike the program team, the course online community never evolved into a community of practice for the whole class. Non-cohort students did not share similar working conditions or professional practices, unlike the cohort’s similar K-12 ecologies; their professional ecologies were different. This divergence between ecologies interrupted the expected evolution into a unified community of practice, particularly because the cohort had already developed a stronger social bond and intentionality to gather. This expectation resulted from previous online courses taught to the same cohort of distance students where, according to the previous instructors, the students’ online community evolved into one community of learners and possibly also a community of practice. Also as Henri and Pudelko (2003, p. 477) point out:

the transition to a state of a gathering to that of a group can be regarded as the expression of a stronger social bond, which takes root in the intentionality orienting the activity and in the awareness of belonging to the group.

Conversely, the two communities evolved differently and recognized effective learning in
separate communities of practice (see Figure 2).

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The non-cohort community members evolved into a learning community as the strength of the social bond and group’s intentionality grew. A common goal brought them together when teams gathered around projects guided by specific tasks, so that social relationships within the community were established with learning as the explicit outcome. As Henri and Pudelko (2003) explained:

[The] dynamics inherent in the life of a community often leads to the evolution of these parameters [the relationship between the strength of the social bond and the intentionality of the gathering] and, consequently, to a change in the type of activity or to the emergence of another type of community. (p. 484)

On the other hand the cohort group evolved further into a community of practice as they shared common practices and had similar organizational cultures as elementary and secondary teachers in Midwestern United States.

These two online sub-communities emerged in the online course; one stemming from the cohort and the other formed by the non-cohort students brought disruption and intense conflict to the learning community. Although non-cohort students were perceived as outsiders and peripheral participants to the cohort existing community of practice, their
large number entitled them as members of the on-campus body. Therefore, their full participation made some of the cohort members feel like outsiders in their own community or somewhat peripheral and these students experienced a situation where their membership appeared to be questioned. It should be noted that it was obvious that on-campus students were more prolific on discussion postings and this could have made some of the other students feel somewhat threatened by a potential rise in online participation expectations. The following quote reflects some of this tension:

> It sounds like there may also be a concern that some people will appear to be contributing insufficiently if they do not post as much and as frequently as some of the more “dominant” posters. Some people may be more “shy” in written format than in face-to-face and others may be more “shy” in face-to-face. It would be a shame if the first group were penalized for perceived non-participation because of limited postings. (Anonymous, WebCT Anonymous Course Feedback, September 2005)

**Intersections between program team and the online course community**

The above analysis supports Moore’s (2007) systems perspective of distance education, which comes from a socio-cultural perspective of two interacting ecologies. Members of the course online community struggled with their identity and sense of belonging, and the class never reached the status of a unified community of practice. According to Henri and Pudelko (2003), when communities evolve they can take two different paths: (a) progress into high levels of social bond and gatherings’ intentionality, or (b) “lead to the wearing down of the social bonds and to alteration in the group’s mode of operation” (p. 477). This seems to be what happened with the online course community. However, all course
members definitely reached the level of a learners’ community as a result of their commitment to learning and support from the program team. The assistance of Clyciane Michelini and Niki Davis’ mentoring activities were able to make up for missing factors, such as the course instructor’s expertise in distance education, and respond to immediate needs, such as advice to the cohort students. Program team support was particularly strong because this course was not merely a course in any graduate program; it was part of the newly created master’s of education (via distance mode) in curriculum and instructional technology. The creation of this version of the degree program was redefining the program team’s community of practice in a major reification process. This seems consistent with Hlapanis and Dimitracopoulou’s (2007) research study of online learning communities of in-service teachers. Using a more quantitative approach to analysis they also found a clear evolution from an early community creation phase to a more mature stage. On the other hand Stacey, Smith, and Barty (2004) confirmed that when taking distance education classes adult learners will be very likely to belong to more than one community of practice: an online learning community and a workplace-based community of practice. They found that “enhancements resulting from the simultaneous involvement of the study’s participants in both workplace and learning communities outweighed the disturbances or disruptions experienced” (p. 111).

The scission between cohort and non-cohort students was obvious within the online community. This was particularly evident in the WebCT anonymous course feedback discussion forum that allowed for the emergence of this unspoken and ongoing conflict, when participants became more blunt and forthright on their postings. However, this
forum exposed the conflicting perspectives among participants and inflamed the discussion and so made it easier for the instructor to manage such conflict, while acknowledging its presence in the community. Even though the anonymous course feedback could be seen as the first step for handling the disagreement and to leverage it as a learning opportunity for the members of the community, not everyone felt comfortable with such expressions of tension.

It is interesting to note that before Ana-Paula Correia arrived on-campus Niki Davis expressed her concern to the program team that this new course instructor would have a big challenge in starting her first post as faculty while also teaching online for the first time. While the team agreed that it was challenging, they also noted that Clyciane Michelini’s supportive collaboration located in the neighboring office would mean that Ana-Paula would also gain understanding of how the program worked. On reflection, Niki Davis was surprised to note how confident her colleagues were at this stage in their innovative project. In addition, the program team had noted a year earlier (in 2003) that they should take care not to overload any instructor with non-cohort students so as to keep the cohort as the majority. The experience here described confirms this unwritten rule that the distant cohort should be the largest proportion of the class was a good one that should have been kept.

As a new member to the program team, Ana-Paula Correia was committed to move from a peripheral participation into a full membership as quickly as possible. However, the program team as a community of practice had limited documentation of processes and few artifacts and objects that embodied the practices of the community. The timeline was
too challenging, and the process of her integration took more time than she wanted, especially when she also had to grapple with the emergence of two online sub-communities in the first course she led.

**Recommendations**

Based on the above discussion some recommendations are presented in the following paragraphs. In a case study as the one presented here, it is up to the reader to decide on the recommendations’ applicability to other contexts and communities.

(1) *Program teams are recommended to explicitly share common practices and knowledge.* “The challenge of a community of practice is to develop and enrich professional practice by sharing and pooling complementary knowledge among its members” (Henri & Pudelko, 2003, p. 483). This challenge was certainly felt by this program team, in bringing in the new member of the team and explicitly sharing the common practices and knowledge used. Ann Thompson’s Technology Mentoring Program assisted the new instructor in a limited extent on her quest to establish her professional identity as she quickly shifted roles from graduate student to junior faculty, but more explicit and documented practices were needed. This would have informed practice, increased the new member’s confidence as an instructor, and enabled her to develop a new professional identity more easily.

(2) *Increase a program team’s capacity to integrate new members.* As Henri and Pudelko (2003) explained, the involvement of individuals in communities of practice “is a means to make practice explicit, to improve and even to transform
it” while assessing their capacity to integrate new members (p. 483). The program team was certainly able to transform and adapt its practices, but it was difficult for a new member to identify the common elements as they were neither explicit nor explained; therefore, the capacity to integrate new members in the existing program team’s community of practice was low. What could have been done differently? If more documentation of processes and storage of artifacts and objects that give form to the community’s experiences had been available, its practices would have been better understood by the new faculty member. The critical knowledge about the community of practice would have allowed her to move more rapidly towards full participation in the socio-cultural practices of the program team’s community. Additionally, by maintaining its reification processes under examination the community would become more reflective and better manage its transformation, as well as keeping a stronger sense of identity.

(3) *Allow time for legitimate peripheral participation in the program teams.* The construction of a professional identity as part of a community of practice is related to the learning that occurs within the individual (Henri & Pudelko, 2003). However, certain conditions need to be met for such learning to take place: “the existence of a common practice individuals can identify with; common recognized and shared needs, the acceptance of change through contact with others and the goal to gain new or to improve competencies” (p. 483). Some of these conditions were not in place, which made the integration of a new member into the program team more difficult. This process of the integration of newcomers into the community takes time and this time was not given to the new
faculty member, who had to immediately take the lead on an important role: online course instructor within a pre-established online community, the cohort, who struggled to integrate the non-cohort students into their online community. She had to give continuity to the program team’s project to create a distance education version of their on-campus master’s program.

(4) Pay attention to changes in multiple ecologies, including the differing and interacting ecologies of students and the university. Disruption occurred because of circumstances beyond the control of the students and course instructor. The capacity to integrate the non-cohort students in the pre-existing community of cohort students impacted learning and teaching. These impacts could be better managed and predicted, if more attention is given to changing ecological perspectives within a course and the whole degree program. Davis (in press) presents an innovative perspective on the challenges experienced by teachers renewing their practice with ICTS. She notes the importance of the multiple interacting ecologies of the class, the department, school, and the region. Aspects of this article describe the interacting ecologies of the program team, one distance education course, and the professional contexts of students in the master’s program. Although data was not gathered on the students’ professional communities this is worthy of study, as proposed by Mackey (2006).

(5) Be aware of shifts in roles and responsibilities in online teaching, learning, and administration. This analysis seems to confirm a shift in roles and responsibilities in distance education (Harms et al., 2006; Natriello, 2005), as illustrated by the program team community discussed in this article. For example, all the instructors
engaged in instructional design activities had increased their role as facilitators; the students became more active decision- and meaning-makers; and the instructional development specialist shared instructional design skills and additional community builder and student advisor roles. Therefore, it is critical to consider these types of changes and plan accordingly when creating and sustaining similar types of innovations in online teaching and learning.

(6) Embrace and manage conflict instead of trying to eliminate it in online courses. Conflict is ubiquitous in communities (Correia, 2008a) and may be expected in online education (Lynch, 2002). Community members in general and leaders in particular should be prepared to turn disagreement into a constructive experience, instead of trying to eliminate conflict. Premature elimination of conflict is likely to bring more stress and possibly paralyze the community. This applies to online communities as well as those working face-to-face. Controversy in learning communities “can result in positive relationships among students as well as increased motivation to learn, enjoyment of the instructional experience, and perceptions of encouragement and support among students” (Johnson & Johnson, 1985, p. 238).

Acknowledgements
The authors gratefully acknowledge the assistance of the Iowa State University Center for Technology in Learning and Teaching, especially the faculty and staff leading the master’s degree of education (via distance mode) in curriculum and instructional technology. Special thanks go to the C I 503 students.
Notes on contributors

Ana-Paula Correia is an assistant professor in curriculum and instructional technology in the Center for Technology in Learning and Teaching at Iowa State University, USA. Her major research interests are computer-supported collaborative learning, design of instruction, and evaluation and assessment of educational products and experiences.

Niki Davis is professor of e-learning at the University of Canterbury, College of Education, Christchurch, New Zealand. At the time of this research she directed the Center for Technology in Learning and Teaching at Iowa State University, USA. Her major research interests are flexible and distance learning and change with technology in education.

References


| Common Cultural and Historical Heritage | Communities go beyond the simple coming together for a particular moment in response to a specific need. Successful communities have a common cultural and historical heritage that partially captures the socially negotiated meanings, such as: shared goals, meanings and practices. New members inherit those from previous community members’ experiences in which they were hypothesized, tested, and socially agreed on. |
| Interdependent System | As individuals work within a context and become interconnected to a community, they become part of something larger, that is, the society through which they found meaning or value. A sense of shared purpose, as well as an identity, for the individual and the larger community can be found. |
| Reproduction Cycle | Communities have the ability to reproduce as new members engage in mature practice with near peers and exemplars of mature practice. Over time, these newcomers come to embody the communal practice and rituals and may even replace the old timers. |
Table 2. Courses in the Master of Education (via distance mode) in Curriculum and Instructional Technology with numbers of on-campus meetings and credits

<table>
<thead>
<tr>
<th>Courses</th>
<th>Number of on-campus meetings (credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C I 501: Foundations of Instructional Technology</td>
<td>2 (3)</td>
</tr>
<tr>
<td>C I 507: Principles and Practices of Flexible and Distance Learning</td>
<td>2 (3)</td>
</tr>
<tr>
<td>C I 505: Introduction to Using Technology in Learning and Teaching</td>
<td>3 (3)</td>
</tr>
<tr>
<td>C I 594: Contemporary Curriculum Theory and Principles</td>
<td>1 (3)</td>
</tr>
<tr>
<td>C I 503: Theories of Designing Effective Learning and Teaching Environments</td>
<td>2 (3)</td>
</tr>
<tr>
<td>C I 515: Action Research in Education</td>
<td>2 (3)</td>
</tr>
<tr>
<td>C I 511: Technology Diffusion Leadership and Change</td>
<td>1 (3)</td>
</tr>
<tr>
<td>HPC 588: History of American Education</td>
<td>2 (3)</td>
</tr>
<tr>
<td>C I 599B: Creative component cohort support</td>
<td>0 (1)</td>
</tr>
<tr>
<td>Major professor support and committee’s review of proposal and final examination of creative component (major project)</td>
<td>1–3 (2)</td>
</tr>
</tbody>
</table>
Figure 1. Different types of online communities depending on their context of emergence

(Henri & Pudelko, 2003, p. 476)
Figure 2. The evolution of the online community (adapted from Henri & Pudelko, 2003, p. 476)