Online Communities of Practice:
A Catalyst for Faculty Development

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ABSTRACT: This article addresses the concept of "communities of practice" and how it has come of age for the professional development of professors as teachers. Thanks to current technological options, faculty developers can enhance the opportunity for the entire faculty to learn through the use of online communities. Designing a faculty development portal using community of practice concepts can be an effective means to jump-start, facilitate, develop, and sustain faculty involvement in academic communities.

KEY WORDS: community of practice; portals; faculty development; faculty learning centers.

Faculty typically develop their craft over many years, learning how to stay current in their field and incorporate teaching innovations through experience and professional development activities – most often on their own (Caffarella & Zinn, 1999). Although the traditional nature of faculty development has been largely individual, this is not to suggest that faculty lead hermetic lives. Professionals from all disciplines—whether doctors, lawyers, plastics engineers, financial analysts, or professors of medieval French literature—typically seek out peers as part of their lifelong professional development. The means for this connection varies. Professional conferences, local chamber of commerce breakfasts, professional association events, newsletters, periodic lunches with peers, a phone call, an email, and even a quick hello to a peer at the office coffeepot all contribute to one's comfort level in terms of "being in

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touch" with one's profession and its community of professionals. However, these connections are generally face-to-face and may require travel time. They are not sufficient for today's faculty, who are faced with massive information overload through the Internet. With knowledge doubling every two years and the pressure to "keep up" ever increasing, one's links to other professionals is becoming even more important, especially as a means for efficiently gaining access to and filtering information required for one's job.

Brown and Gray (1995), in considering the organizational challenges of managing in our fast-paced, ever-changing "Knowledge Era," discussed how communities can play a role for knowledge workers in meeting these challenges. As knowledge workers in higher education, faculty need an active, connected community to help filter the overwhelming availability of information, understand what they find, and use it appropriately. Baldwin (1998) suggested, "as technology advances further into academe, it may challenge the 'lone wolf' or 'independent entrepreneur' professorial model. To succeed in a technologically advanced era, professors may need to become more interdependent and mutually supportive" (p. 17). Therefore, a major professional development challenge for faculty developers and academic institutions is harnessing current technological capabilities and developing avenues for creating connected communities of learners for faculty.

This article addresses how "communities of practice" concepts apply to the professional development of professors as teachers. Thanks to the technological options available today in academic institutions, faculty developers can enhance the opportunity for the entire faculty to learn through the use of online communities. A faculty development portal that uses community of practice design elements can be an effective way to jump-start, facilitate, develop, and sustain faculty involvement.

Faculty Learning Communities as Communities of Practice

Di Petta (1998) concisely made the case for why *community* is particularly important for professors' ongoing professional development. "As higher education changes dramatically in response to public calls for accountability, economic realities, and the rapid spread of technology, faculty need new ways of working together to prepare for and shape their professional future. Community as an ideal combined with computer mediated communication technology can help redefine teaching, learning, research, service, and professional development in higher

education" (p. 54). The concept of communities of practice is one way to think about how to create and maintain a community of professionals dedicated to teaching and learning.

Definition

While it is not a new term among social scientists, the working definition of a community of practice has been revised recently in response to the particular demands of the Internet age. According to Allee (1997), a community of practice (COP) is made up of individuals who are informally bound to one another through exposure to a similar set of problems and a common pursuit of solutions. Wenger (2001) elaborated by describing a COP as "a group of people who share an interest in a domain of human endeavor and engage in a process of collective learning that creates bonds between them: a tribe, a garage-band, a group of engineers working on similar problems" (p. 2). A community of practice has three main characteristics:

- *The domain.* A COP is not just a group of friends. Involvement in the community requires some knowledge and some competence in the focus area, or domain.
- *The community*. Members of the community interact and learn together, "they engage in joint activities and discussions, help each other, and share information" (p. 2).
- *The practice.* Members of the community "develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short a shared practice" (p. 3).

In college and university settings, "faculty learning communities" (FLCs) provide excellent examples of communities of practice. FLCs, such as those at Miami University (Cox, 2001), Virginia Tech (Wildman, Hable, Preston, & Magliaro, 2000), San Jose State University (Harper, 1996), Texas A&M (http://coalition.tamu.edu/Zope/ilc/faculty), and the University of Wisconsin-Madison (www.wisc.edu/provost/ccae/ccle), create and support a "community" of instructors who meet together fairly regularly to discuss a specific "domain"—teaching and learning. More specifically, these faculty learning groups provide a forum for meeting colleagues, participating in peer-to-peer co-learning activities, and sharing "best practices." They may also serve as catalysts for new ideas and projects (Wenger & Snyder, 2000).

Depending on the institution, faculty learning communities may be referred to as "faculty learning groups," "faculty inquiry groups,"

"faculty study groups" or "teaching circles." These groups, or communities, can operate formally or informally, and can take a variety of forms. For example, some FLCs are unstructured, with the topic of discussion being whatever is on people's minds that day. Others typically fall into Cox's (2001) two categories of FLCs—cohort-focused and issue-focused. Cohort-focused FLCs "address the teaching, learning, and developmental needs of an important cohort of faculty" (p. 73). He uses the example of a junior faculty cohort and a senior faculty cohort. Each group has its own focus and priorities. An issue-focused FLC "has a curriculum designed to address a special campus teaching and learning issue, for example, diversity" (p. 76). Issue-focused FLCs identify a set of topics or a single topic they wish to discuss, address the topics over a period of time, and then disband. Some operate within a department; others are cross-disciplinary.

Faculty learning communities may have different foci: student learning, faculty development, and/or campus-wide issues. The members often determine the way in which the group operates and the frequency of meetings. FLCs may be self-generated; or they may be jump-started by an institutional initiative or through a faculty development center or program. Centers, for example, may provide needed space, technology support services, or small grants for groups to order common reading materials, software, or refreshments. Examples of FLC foci and topics include the following:

- student/classroom focus   enhancing discussion in the classroom
                                    promoting critical thinking in the classroom
                                    exploring alternative course assignments
                                    enhancing classroom group facilitation skills
- faculty self-development focus   professional portfolio development
                                    mastering technology tools
                                    mid-career faculty development
- organization-wide focus   incorporating service learning in courses
                                    freshman as learners
                                    fairness in grading assessment

Over time, this application of community of practice concepts can fulfill the third component of communities of practice—the

"practice"—through repeated exchanges of knowledge and experience, thereby moving the "practice" of teaching and learning forward.

A Faculty Learning Community Example

In 1997, the faculty-initiated teaching center of a midsized private school created a faculty learning community to focus on improving teaching and learning on campus. The center asked interested individual faculty members to invite five or six additional faculty members to work with them on a particular topic. The six-member statistics group (one of the eight groups that formed) comprised faculty who taught statistics in the psychology, political science, business, sociology, education, and mathematics departments. They met in person twice a month. Over the first year, they:

- shared syllabi,
- learned new software together,
- shared computer and software resources in new ways,
- discussed specific challenges in designing problems and tests,
- ordered materials of common interest from their own disciplines to share with each other and to place in the library, and
- worked at understanding how other disciplines' approaches could enhance their own teaching and improve student learning.

Although they contacted each other by email, they carried out the vast majority of their efforts by working together in person—whether demonstrating software or discussing ideas of mutual interest. They did not receive any compensation for their work; however, each group received a $500 mini-grant for materials and refreshments. At the end of the year, all FLC members were asked for ideas to improve the FLC's effectiveness. The statistics group (consistent with the other seven groups) named three primary areas for improvement:

- having more time to meet,
- including other faculty who also taught statistics on campus,
- having greater access to statistics materials from other disciplines and to materials about the teaching of statistics.

The groups also cited two major benefits of their participation:

- the opportunity to meet new colleagues,
- the opportunity to enhance their knowledge of teaching through mutual growth with colleagues.

Technology's Role—The FLC Portal

Over the last five years, since the experiences of the statistics FLC discussed in the previous section, there has been continuous introduction of new and/or improved technology tools. While early efforts in using technology to connect FLCs emphasized email (Gillespie, 1998), today's expanded "toolkit" includes listserves, chat rooms, webcasts, and faculty development portals. These have created an enormous number of online opportunities for faculty development centers to enhance FLCs by connecting faculty with colleagues and information inside and outside the institution.

The previous example of a predominately face-to-face FLC was typical of FLCs in the 1990s. Today, their purpose and activities remain essentially the same; but now the Internet, through a wide variety of services, further enables FLCs to underscore the benefits named above and to address more readily the areas listed for improvement. Table I describes an "Internet-enhanced" community of practice where face-to face communication is supplemented by both asynchronous (anytime/ anywhere) and synchronous, computer-based communications and a wealth of online content. Table I, adapted from Wenger's (2001) work on communities of practice, lists services specifically relevant to an FLC.

Currently, it is reasonably easy to create each of these services (Table I) on the Internet. The "Question and Answer" service can be implemented by using discussion board software. The next set of services— "Professional Development Activities," "Library," "Best Practices," Community Workspace," and "Lessons Learned"—can all make use of standard website document-handling capabilities. "Site Search Engines" are now commercially available. For example, Google offers a Google Search Appliance that will search your institution website using the Google search engine (http://searchtools.com/analysis/google-appliance-v1. html). Finally, "Community Management Tools" are maturing and available, ranging from the relatively simple (and inexpensive) to the elaborate (and expensive). Wenger (2001) developed a detailed taxonomy of the wide number of software offerings available in this evolving marketplace.

The ability to develop a community **within** an FLC on campus can also be seamlessly expanded to access resources and relevant communities **outside** the institution. As Baldwin (1998) indicated, information technologies contribute to "expanding professional growth opportunities" and "provide an array of opportunities for enhancing the teaching aspect of faculty life" (p. 14). Where, just a decade ago, participation in

Table I
Internet-Enhanced Faculty Learning Community Portal

Service	Explanation
Question and Answer	A facility for floating questions to the community or a subset of the community
White Pages	A directory of membership with contact information
Subject Matter Experts	A topical directory (e.g. yellow pages) of subject matter experts
Professional Development Activities	These can include (Caffarella & Zinn, 1999): • Informal, self-directed learning experiences (e.g., relevant chat, discussion boards) • Listing of formal face-to-face and online professional development programs and courses, on and off campus • Listing of formal face-to-face and online organizational development opportunities This section could also include a community calendar and a news/hot topics section.
Library	Resources to support the faculty learning community focus, including articles, websites, list serves, software packages, and tutorials. In addition, there can be a document repository for the community's knowledge base (Wenger, 2001), including minutes of meetings and archives (e.g., audio or video recordings) of local events.
Best Practices	What has been done and works well. These resources can range from materials to support the functioning of the community, to supporting the instructor in the classroom, to a new student exercise. Templates and examples could be shared.
Community Workspace	Collaborative tools may include synchronous discussion or meeting (chat, discussion board, white board, videoconferencing) and the opportunity for community members to create their own special interest groups.
Lessons Learned	History and documentation of the community's progress and accomplishments
Site Search Engine	A search engine to help community members find resources or documents on the FLC website
Community Management Tools	Successful communities are cared for and hosted, and incorporate functions such as: following who is actively participating; which documents are downloaded; how much traffic there is; which documents need updating, etc.
Other Related Communities	Links to related communities from both within and outside the organization or institution.

a disciplinary national conference might be thought of as the principal opportunity for professional development and contacts, today's technologies allow us to create professional development opportunities at any time of the day or night. For example, Shea, Sherer, and Kristensen (2002) describe ten different categories of online sources and providers of faculty development:

- university and college teaching and learning center websites,
- university and college center online workshops,
- virtual teaching and learning technology centers,
- online teaching and learning courses,
- technology product companies,
- publishing companies,
- professional associations (resources, listserves, etc.),
- teaching and learning journals and magazines online,
- online newsletters,
- online international resources.

Access to these online sources can expand self-directed learning opportunities, enhance formal professional development programs, and support organization-wide change initiatives as described previously for FLC foci. Compared to the FLC example mentioned earlier (faculty members teaching statistics in different disciplines), faculty members today have more opportunities to access knowledge bases, connect with others who have mutual interests, and share, create, and develop relationships with colleagues. Members of an FLC may, for example, take an online course on the teaching of statistics, download trial versions of a new software program, participate in chat rooms or list serves with colleagues from their professional associations, write a joint article for an online newsletter, or serve as a virtual group of experts for colleagues.

The usefulness of the online FLC, in the long term, consists of the ability to have a variety of services housed in one easy-to-use place—an online portal. As described by Pittinsky (1999), a portal is a "gateway to the entire Internet and an aggregator of information on one or more areas of interest." Put another way, a portal is a centralized, customized area on the Internet that manages vast amounts of information and links a community easily and efficiently. Texas A&M has an example of an active FLC portal (http://coalition.tamu.edu/Zope/ilc/faculty) which contains some of the characteristics identified in Table I. Over time, a full FLC portal can provide the many services described in Table I in a well-organized, easy-to-navigate web page. Individual members of the FLC also then have the tools to customize their portal to fit individual

needs. Users of MyYahoo, for example, have been creating personalized portals for some time. When executed effectively, each faculty member can "tame" information overload through easily accessible, up-to-date resources and ready connections to community members.

The next step, to move from a useful resource for an individual to an effective, ongoing community of learners, is more difficult with a less certain pathway to success. Figure 1 reconstructs the list of characteristics listed in Table 1 into a set of components represented by the spider's web. Each institution will probably find its own combination of services that help establish and sustain their online community. The portal then becomes the single point of entry.

Even with the availability today of portal development tools (e.g., www.PeopleSoft.com), designing an online FLC portal can be daunting. The possibilities for content and community links are enormous—and expanding. If faculty developers need to locate and select portal development tools as well, their job becomes even more difficult due to the large number of available options. Based on Wenger (2001), three general but

Figure 1
Interrelated Components of the FLC Portal
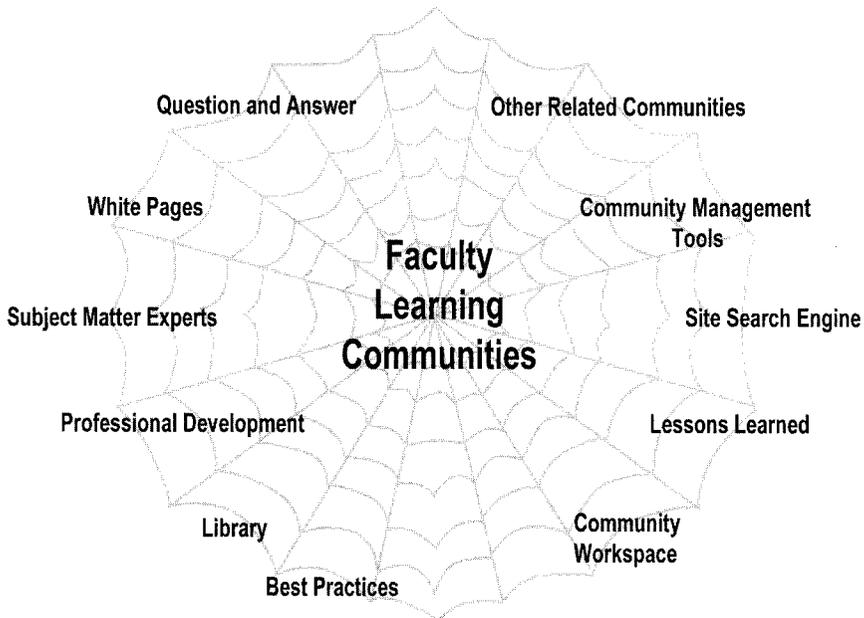
important development guidelines for building a technological platform for communities of practice are helpful to keep in mind:

- Lean toward using mainstream, established software to develop the online FLC portal—software with which the technical support staff currently has experience.
- Consider a prototype developmental approach, where up-front investment is relatively small and the development continues, iteratively, over time. Since the online FLC portal is a relatively new concept, the intended community will better understand their needs as they use the portal; developing the portal piece by piece will likely be more efficient.
- Be sure the resulting portal is easy to use, easy to understand, and easy to navigate.

What Institutions Can Do to Support FLCs

Cox (2001) identifies several long-term goals of faculty learning communities:

- Build university-wide community through teaching and learning.
- Increase faculty interest in undergraduate teaching and learning.
- Nourish the scholarship of teaching and its application to student learning.
- Broaden the evaluation of teaching and the assessment of learning.
- Increase faculty collaboration across disciplines.
- Encourage reflection about general education and coherence on learning across disciplines.
- Create an awareness of the complexity of teaching and learning.

The ability to create an online portal to support a university FLC doesn't change the long-term goals of an FLC—it only adds the capacity for far greater breadth and depth than ever before imagined. Today, with a little help from technology, Cox's "university-wide" FLC mentioned in the first long-term goal quickly becomes a worldwide community of resources and connections.

To develop and maintain a portal-enhanced FLC requires college and university organizational commitment and support, not only from the top, but also at the operational level. At institutions that have established faculty development offices or centers for teaching, these offices would play a key role—a leadership role—in the development, marketing, and management of the institution's FLC. For many institutions, a portal-supported FLC would be an extension and enhancement of

current online faculty development efforts. The following are specific actions that faculty development centers and programs could undertake to contribute to the success of FLCs:

- Develop and sustain an infrastructure that will support FLCs (portals as a tool, funding, technology support).
- Educate faculty and administrators about FLCs.
- Educate faculty about portals and their uses.
- Help identify people (on and off campus) who have common interests and bring them together.
- Work with the faculty to identify materials relevant to potential community members interested in a particular issue.
- Serve as the connection between FLCs with mutual interests at the departmental, interdepartmental, campuswide, interinstitutional, regional, national, or international level—encourage boundaryless "membership" or "involvement."
- Provide and maintain a digital teaching and learning library, including links to outside digital teaching and learning libraries.
- Publicize FLC efforts and contributions thus creating avenues for sharing, "best practices" in teaching and learning.
- Nurture in whatever ways possible FLC learning activities.
- Encourage faculty to include students as co-learners in selected FLC professional development activities.

Conclusion

The benefit of developing and supporting an online faculty learning community facilitated by a portal includes extensive opportunities for faculty development, independent of time and place, throughout an institution. In 1998, Di Petta appropriately pointed out that "creating the infrastructure to develop and support virtual work environments for faculty, staff, and students is an expensive and complicated undertaking" (p. 61). However, just four short years later, after extensive institutional investment, much of the campus infrastructure is typically in place—networked computers for almost all faculty, campus networks, Internet access, web development support staff, and a better appreciation among administrators for the importance of ongoing, pervasive faculty development.

While new technology will continue to flood the market, and ongoing budget constraints are likely to limit purchases and the size of technical support staffs, most colleges and universities have the pieces in place to create an Internet-based FLC. Creating a vehicle to expand knowledge

and learning opportunities for faculty, individually and collegially, both within and outside the institution, can enhance professional effectiveness in teaching and learning and become a much-needed resource for surviving the rapid changes in teaching technology. An online faculty learning community portal greatly expands the scope of the original, pre-Internet FLC, making it more pervasive, more sustainable, better connected, highly visible, and well documented.

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