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ABSTRACT
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specific area of difficulty is distinguishing between a team and a CoP.
Because there are strong similarities between the two, it is often helpful to
outline the areas where teams and CoPs differ. Another area of difficulty
with regard to a CoP is determining, if one does indeed exist, how best to
nurture its existence in an effort to provide fertile soil for its
development. This paper looks at these three areas: (1) defining a CoP; (2)
distinguishing between a CoP and a team; and (3) identifying ways to nurture
a CoP. The framework for addressing these questions is from the perspective
of a posthoc review of two case studies: the ISUnion Web-design team and the
actual virtual community developed by the Web-design team. The ISUnion is an
interactive Web site designed and created by graduate students of the
Instructional Systems (IS) Program at an academic institution in the
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an electronic, Web-based infrastructure to support the development of a
virtual community of dialog. (Contains 7 references.) (AEF)

A Posthoc Review of Two Potential Communities of Practice

By: S. Marie Duncan, Doretta E. Gordon & Haihong Hu

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Abstract

There is a growing interest among organizations in identifying and nurturing Communities of Practice. However, defining a Community of Practice, distinguishing it from a team, and nurturing the growth of a forming Community of Practice can prove to be challenging. By considering two case studies in a posthoc fashion, two potential communities of practice will be defined and characterized. Finally, a discussion of how best to nurture a newly formed community will take place.

Introduction

Delineating what is and what is not a Community of Practice (CoP) is not a clear-cut task. Although many definitions of Communities of Practice exist, assessing the degree to which a group meets the components that make up the criteria of these definitions is often subjective and difficult at best. One specific area of difficulty is distinguishing between a team and a CoP. Because there are strong similarities between the two, it is often helpful to outline the areas where teams and CoPs differ. A final area of difficulty with regard to a CoP is determining, if one does indeed exist, how best to nurture its existence in an effort to provide fertile soil for its development. This paper will look at these three areas: (1) defining a CoP, (2) distinguishing between a CoP and a team, and (3) identifying ways to nurture a CoP. The framework for addressing these questions will be from the perspective of a posthoc review of two case studies: the ISUnion Web-design Team and the actual virtual community developed by the Web-design Team. The purpose of the Web-design Team is to develop an electronic, web-based infrastructure to support the development of a virtual community of dialogue. The purpose of the virtual community is to nurture dialogue among existing practitioners, faculty and current students in the area of performance technology and instructional systems design.

The ISUnion is an interactive web site designed and created by graduate students of the Instructional Systems (IS) Program at an academic institution in the Southeastern United States. The ISUnion consists of components such as an interactive forum, news, a knowledge management/survey center and an employment center. The original goal of this web site is to build a virtual community of students, alumni and faculty to develop, improve and promote the IS Program at the institution. This website came into existence in September 2000.

Communities of Practice

Diverse definitions of Communities of Practice exist, yet they have many similar characteristics. The phrase "community of practice" was first used in 1991 by Etienne Wenger and Jean Lave. In 1998 Wenger published the work, "Communities of Practice: Learning, Meaning, and Identity" which describes communities of practice as a "community created over time by the sustained pursuit of a shared enterprise." Wenger further clarified Communities of Practice as "groups of people who share information, insight, experience, and tools about an area of common interest". (Wenger, 1998)

The Value of a Community of Practice

Why are communities of practice worth identifying and nurturing? They bring the power of a self-organizing, social entity to play in an otherwise often highly structure world. "Self-organizing" means that it is based on a degree of intrinsic motivation and perceived value. People are a part if the community because they want to be. When they no longer find value in the community, they either change the community or leave it. The fact that a CoP is a social entity brings the dynamics of the complexity and interrelations of two or more persons interacting. This relation is seen to be exponential in its power as opposed to linear.

Many organizations including business, government, and not-for-profits, have seen the potential of communities of practice. Organizations such as Hewlett-Packard, the Department of Defense and the World Bank have all developed technical means of supporting communities of practice. Often this takes the form of discussion boards or electronic data sharing.

Because of the change in our global economy from that of being an industrial society to that of an information sharing society, organizations see the value of capturing the knowledge that exists within communities of practice. Within knowledge management frameworks, organizations not only attempt to capture existing data and information, but they also see the value of capturing knowledge, expertise and wisdom. Today's workforce no longer places their loyalties with a single company. Whereas a few years back it was not uncommon for a worker to retire after thirty, forty or even fifty years with a single company, today, individuals value career moves. They develop specializations. Workers move to where the career opportunities allow them to increase their expertise. From the knowledge management perspective, organizations develop electronic forums for communities of practice to share their knowledge, expertise, and wisdom. Because of the electronic infrastructure, this is now archived information, a living artifact, which an organization can now index and search. When the individuals leave the organization, at least parts of their tacit knowledge has been captured by the organization.

But simply setting up a discussion board alone may not provide a nurturing environment for a community of practice to emerge. Communities of practice take time to form. They follow an ever-changing pattern of ebb and flow. Indicators that a community of practice has formed would include the nature of the structure, the commonalties and the artifacts or products of the community (Wenger, 1998).

A CoP is formed spontaneously as people seek help, try to solve problems, develop new ideas and approaches (McDermott, 1999). People's interest, time and energy direct their participation in CoP. A CoP develops in various stages with different levels of interaction among its members and different kinds of activities. A CoP is different from a business or functional unit in that it defines itself in the members' understanding of their practice. A CoP is different from a team in that it is defined by knowledge rather than by task. A CoP is different from a network in that it is not just about social relationships.

Communities of Practice are groups of people who share similar goals and interests. In pursuit of these goals and interests, they employ common practices, work with the same tools and express themselves in a common language. What keeps people together is a common sense of purpose and a real need to know what each other knows.

Members of a Community of Practice learn from each other in solving common problems and evolving a more skilled and creative practice. They are committed to jointly developing better practice. Communities of Practice are pivots for the exchange and interpretation of information. They leverage the preservation of tacit knowledge and keep up with the development of the cutting-edge technology.

Case One: The Web-design Group of the ISUnion Project as a Potential Community of Practice

The Web-design Group consists of twenty-five members who participate in varying degrees in the design of a webspace structure to support the potential, virtual community of dialogue. In reviewing the development of the infrastructure in a posthoc fashion, it is beneficial to outline the differences between a team and a community of practice. Several articles have been written to look at these similarities and differences and to determine how the strengths of each can best be utilized within an organization (McDermott, 1999 & Sharp, 1999). Figure 1 below presents key distinguishing differences between teams and communities of practice.

Characteristics	Team	Community of Practice
Existence	Appointed	Choose (self-organizing)
Orientation	Forward view	Sense of history
Define by	Abilities	Knowledge
Driven by	Goal	Value
Progress	Via workplan	Via discovery
Membership	Fairly stable	Transient

Figure 1. Alternative Views of Teaching and Learning, 2000

The structure of the Web-design group is based on outlined project plan and individual's abilities to move the project forward. While the group was self-appointed (volunteer), there was a strong marketing effort by core members, which included benefits of participation such as training on HTML coding and graphics applications.

The commonalties of the Web-design group included a shared vision for the desired outcome. However, the group was driven by the goal of completing the project. There was no desire for long-term sustainability of the design group. Rather, a workplan, which had a specific end point, was the driving force. While many shared stories, language and jargon were noticed, it is believed that this is in part due to the common environment of the participants. All were students within the same programs, attending classes with the same professors, and moving through the same track.

Finally, the products of the group related directly to the project. Whereas with a community of practice where the products tend to be a defining element, the Web-design group looked at the products as completion points. They did not define the group in any way.

Based on the activities, social dynamics and structure of the group, and nature of the group's products, the ISUnion Web-Design group could be considered a team rather than a Community of Practice. The social dynamic as it currently exists, is strong and with the strong core value of "perceived value in the idea of the ISUnion" shared by the group, the team will most likely develop into a CoP in time. However, as it currently stands, it would be better defined as a team with strong social interactions, a shared belief in the value of the project and a firm knowledge and trust of the abilities and skills of the other group members.

Case Two: A Virtual Community as a Community of Practice – The ISUnion
Is the ISUnion (Virtual Community) a CoP? While it may be too early to answer this question, the ISUnion is a potential CoP because its structure and the target interaction conform to the characteristics of a CoP.

Organizational / Social Structure:
Members of the ISUnion are students, alumni and faculty of the IS Program at a Southeastern United States academic institution. They are informally attached to one another through exposure to the common field of instructional design or improving human performance, and they are in common pursuit of solutions to improve human performance. They hold a warehouse of knowledge and skills in Instructional Systems and Human Performance Technology. Additionally, they come from the same institution, which provides a common theoretical underpinning for the study of the particular discipline.

But the ISUnion is different from a formal organization. People who participate are all doing it out of their common interest in solving human performance or learning problems, and they all speak in the ISD jargons like " instructional objectives and learning hierarchy". Their motivation to participate is intrinsic as no reward or incentive system exists to encourage

participation. People build friendships and learn from each other at virtual and face-to-face social occasions in the format of chatting, sharing experience and story telling.

Roles of Participants in the ISUnion from the Perspective of a Community of Practice

Wenger describes several roles of an individual within a community of practice. The are:

- Inbound
- Insider
- Outbound (Wenger, 1998)

"CoPs arise out of people's natural desire to share ideas, get help, learn about new ideas verify their thinking, and hear the latest "professional" gossip" (McDermott, 1998). They develop as people have regular contact with people who share their interests.

Newcomers of a CoP usually take an "observational" lookout post, both absorbing and being absorbed in the culture of the community of practice. They assemble a general idea of what constitutes the practice of the community. Their tasks are usually short and simple with small costs of errors and little responsibility. Newcomers usually perform at the end branches of work processes and start from the ground for self-evaluation (Lave & Wenger, 1991).

How does this description relate to the role of a newcomer in the ISUnion? People reach out to the ISUnion from different angles. People may have heard about the ISUnion from their department listserv, available flyers, or by word of mouth. They begin with observing, which is to check out news first, to see what is going on out there and what the web site has to offer to its target audience. Then, they will lurk on the discussion board, and jump in whenever they feel interested or have time to join the discussion if they feel that the discussion facilitated by the ISUnion is of value to them for their professional development.

"Inside" community members frequently help each other solve problems, offer each other advice, and develop new approaches or tools for their business or study. Helping each other makes it more convenient for community members to improve their weaknesses and learn together in the "public space" of the community (McDermott, 1998). "As they share ideas and experiences, people develop a shared way of doing things, a set of common practices and sources of individual identify" (Lave & Wenger, 1991).

As a member at full participation, insiders usually have a deeper sense of the value of participation to the community. Learning of an insider lies in becoming a part of the community. Insiders commit a greater amount of time and an intensified effort. They assume more and broader responsibilities and take more risky and difficult tasks. They enjoy an increasing sense of identity as a master practitioner (Situated Learning, 1991).

People enter the ISUnion to check out news regularly, to share experience bravely and to search for answers to their unsolved problems. People participate in the ISUnion can perform similar jobs or collaborate on a shared task or work together on a product. Maybe some of them work together at the same company or in the same classes, maybe some are working on a mutual assignment. They are peers in the execution of the real work. What holds them together is a common sense of purpose, which is to improve their ISD practice, and a real need to communicate what each other knows in order to broaden their insights and vision in the ISD field. They ask each other for advice on completing their ISD projects, they share successful or painful experience in past projects and discuss about the direction of development in the ISD field.

Students talk about their accomplishments and concerns, and express their expectations and ambition for our program. Alumni share stories of their practice in the field or make known their admiration and loyalty for their alma mater reflecting on the foundation they built while there, and helping to strengthen our current program by sharing their information, experience and talent in the IS field. Faculty members maintain a close connection with students and alumni for a common purpose, to express their thoughts on a program they greatly influence (ISUnion Proposal, 2000). At the same time, more experienced and well-respected alumni or faculty members can act as thought leaders or coordinators of the CoP to initiate activities and guide the direction of people's interactions.

A community of practice is a living entity, in a "constant state of motion"; evolution. As such, people move towards the edges of the community, following an outbound path towards the ever-changing boundary "defining" the community of practice from the outside "world". There are several reasons why a member of a CoP would be on an outbound path. These include:

- Conflicts or shifts in time and energy

  Since CoP is not an official required organization for people to join, people's participation in a CoP depend on their individual commitment of time and energy. Even though participating in CoP is valuable to people, it is easily ignored because of other more pressing tasks (McDermott, 1999). Also, if a person's energy level does not allow him to attend any CoP activity after work, this person will very likely to choose to rest for next day's work instead of going for a CoP meeting.

- Conflicts or shifts in values

  Another important issue that caused people to leave a CoP is the conflict or change in the value of an individual and the shared value of a CoP. Sometimes, a community member joins a CoP when his or her temporary needs or value match the CoP value. After a while, his or her needs or value may shift according to the change in his or her situation such as a job shift. This person's value may not match the one of the CoP any more after he or she changed his or her job, and he or she will choose to leave the previous CoP, or maybe join another CoP.

- CoP not engaging or effective enough to hold people together

  Because of the emergent and spontaneous nature of a CoP, sometimes it is not well organized or managed efficiently. If the CoP activities are not focused on knowledge and skills essential to both the practice and the people; if there is no

respectable community members or thought leaders involvement or coordination; if personal or community interactions are not active or enthusiastic, community members will lose interest in the CoP activities and the CoP is going to diminish. Specific to the ISUnion, potential reasons why people would be on an outbound path are:

- Not enough involvement
It is possible that people will leave the ISUnion if it does not have enough opportunities for individual or community interaction. Most people would not like to participate if they see very few people interact with each other, and there are no major professional figures (experts) within the participants. They would consider that this CoP is not very popular among the practitioners in the ISD field, and guess that there might be less value in committing time and energy to this CoP.

- Not active or current
It is likely that people will stop observing or lurking on the ISUnion if they find out that there is not much change in the topics or feedback of the discussion forum, or the number of hits to the web pages have very slow and slight increase. They would think that the topics discussed on this web site is not related to the most current core value so that nobody would like to contribute.

- Not entertaining
Due to the self-emergent and self-organizing nature of a CoP, the stability of the community can easily deteriorate if the contents or activities provided by the ISUnion are not attractive enough to hold its visitors for a comparatively long period of time. It will be very difficult for a member of the ISUnion to have to discipline him- or herself to keep coming back to visit the web site if there is not any fun or interesting elements related to the field, which appear on the web site regularly and frequently.

- Time and energy
Some people may have to stop attending the ISUnion temporarily or permanently if their job, study, or personal load does not give them any space for any other commitment. For example, there is a fluctuation in the number of hits to the ISUnion between ordinary school days and the week for the final exam because most of the participants are working in the educational area.

What are the potential benefits of a CoP?

Communities of Practice provide an opportunity for people to solve real problems in ways that formal processes can not anticipate. There is always a formal ideal way of performing a task or completing a study assignment such as Service Standards or the requirement on a course syllabus. But after we do things in the real settings for a period of time, we may have pulled out from the Service Standards or syllabus a gist of the ideal way or have formed our own thoughts or experience of performing the task. This set of informal or improvised knowledge is what we can share with each other within a Community of Practice to become an efficient and skillful performer of our tasks, but what we can not always obtain from formal education or instruction.

Learning is more about becoming a member of a community than it is about absorbing information. It is considered a social process built around informed participation. This applies to the learning of tacit knowledge, which refers to "intuition, judgment, and common sense—the capacity to do something without necessarily being able to explain it". Tacit knowledge exists in the special practices and relationships that emerge from working together over time. People draw out the tacit knowledge that others possess by having human interactions to construct a common context to understand each other and the trust to be willing to share ideas. (Brown & Gray, 1995)

Why do people want to join ISUnion and Can we benefit from ISUnion ?

- The ISUnion is a badge of identity.
People who participate in the ISUnion identify themselves as a current or previous member of the IS program and the field. These people will be interested to find out about what happened in the program, what progress the program has made and what the most up-to-date research or development is in the program and the IS field. The perceived quality of the program is a reflection on all past, present and future participants in the IS Program.

- The ISUnion is a place to meet people.
People involved in the ISUnion activities are the ones who really would like to meet (may be virtually) with other people working or studying in the same field, and to form a social relationship with them. Now more than ever, people realize the importance of networking with people working in the same field. They try to improve their learning and collaboration by building trust between each other first. For this purpose, they will actively take part in most of the activities proposed by the ISUnion for them to meet people face to face or virtually. An additional benefit of the ISUnion is the forming of a web of participation and networking. The ISUnion web site presents the most current news of events happened in the IS program. It is updated every month with the most recent stories of events and photographs. People come to the ISUnion to read about what has just happened and what is going to happen so that they can share the common topics when they encounter other members of the community. People get together face-to-face when there is any conference or social event announced by the ISUnion, and these events become the major "real" (as opposed to virtual) human interactions of the CoP.

- ISUnion is a way to learn.
Another major reason, hopefully the most important one, for people to be engaged in ISUnion is to learn from each other and to produce better practice. The discussion topics posted on the interactive forum can be a big attraction to the target audience. People can raise their questions or problems by posting them into the forum. If other people find the topics interesting and relevant to their particular problems or experiences, they would try to offer solutions or share their similar encounter by carrying out an asynchronous on-line discussion. Other members who visit the web site may also regard this

exchange of information valuable to their job or study. Thus, learning will be disseminated within the whole group of target audience.

The ISUnion offers an alternative way to learn about the real work experience from alumni and faculty members, about how academia relates to "reality" and how the combination of theory and practice is dynamic in nature. Summaries of interviews of alumni and faculty posted on the web site inform us about stories of achievements and failure. These real-world stories may be different from the ideal settings and methods learned from the courses offered by the IS program. These stories provide us with a context to connect classroom study with the real-world requirements, and create a more realistic view of the ISD field. Conversely, a theory "worked out" on the web site via dialogue may have a change effect on a current practice in the field.

Via the ISUnion, we have the opportunity to learn what is impossible for the academic IS program to offer--- the tacit knowledge by becoming a member of the community. The tacit knowledge that is embodied by the community of the ISUnion refers to the intuition, judgment and common sense serving the purpose of improving human learning and performance. This tacit knowledge can only be acquired by involvement with the students and practitioners in the ISD field. The ISUnion offers us one more opportunity to interact with these people and to have one more exposure to and possibly working with this embedded knowledge.

Nurturing the Community

Having demonstrated that the community for which the ISUnion is serving is in fact a community of practice, and that there is a potential benefit to the community for using ISUnion, we must now determine how to increase its use. At present we have identified four areas of potential improvement. The four areas that are currently lacking are involvement, interaction, time/energy, and entertainment.

Involvement, for our purposes, is defined as communication between community members. Some possible ways to increase involvement are storybuilding, case debates, and increased discussion. Storybuilding would consist of individuals 'writing' a collective story. A second proposed technique is sponsorship of case debates. The concept is to post elements of an instructional or performance analysis and allow community members to discuss and debate subsequent actions. A final proposal to increase involvement is to increase activity on the discussion board. A couple of ideas in this area are to have recognized leaders and experts in the field moderate discussions and to restructure the mechanics of the discussions so that they are not linearly structured.

Interaction, for our purposes, is defined as utilization of the site. Examples of ideas to increase community use of the site are a case study database, electronic library, day-in-the-life-of documentaries, and daily updated material. A case study database could be a repository of cases studied within the classroom, experienced in the Performance Systems Analysis course, and encountered by alumni. Such case studies would include as many elements as possible from the initial contact hopefully through a complete evaluation. Such a repository would be of immense benefit for many different members of this community, from students learning the processes for the first time to veterans of the field doing research. A second idea to increase the member interaction would be to digitize current videos from the Learning Resource Library. Such videos represent seminars with leaders of the field as well as recorded courses. Other material could also be added to the library, such things as lecture notes, PowerPoint presentations, and old tests. Another element for increasing interaction could be documentaries of leaders in the field and alumni of the program. A final idea is to have daily "___'s". This could be a daily quote, daily word, daily wisdom, and etceteras.

Time and energy seem to be in short supply for many members of this community. As such, this site should help reduce time and energy expenditures of the community members. Some ways to accomplish this could include posting projects from the Computer Courseware and Electronic Performance Support Systems classes that might be of benefit to the community. Such courses could include accessibility requirements, copyright laws, and software introductions. Instructors can use the site within courses. An example of such use might be to interview alumni online. Interviews are currently a requirement in one course, by conducting them online there is a record which others can benefit from. Furthermore, course credit could be given for work done on the actual site. The program that supports the site is not very strong technically and some students feel this is a deficit with the program. By providing credit for technical work on the site, the site, the student, and the program gain some benefit. A final method to reduce time and energy consumption is to use the site discussion board. At present the online courseware supports discussion but does not provide a notification option. The ISUnion discussion board does provide this option.

Finally, the site could be made a bit more entertaining. This could be accomplished through the use of such elements as jokes, comic strips, and interactive games. There could also be a ___-cam. This would be something along the lines of a fish-cam, but with an object of interest to the community.

All of these potential methods of nurturing the community are technical and require deployment time. Many of them also require a repository in place prior to deployment. Several also require individuals to commit to moderating discussions or provide material. However, much of the material does exist or would not require much effort to prepare for the web. The question that must be answered is whether the extra effort provides a large enough benefit to the community to be worthwhile.

Conclusions

A Community of Practice takes time to develop. Communities of Practice are organic and self-organizing. They need time to find what kind of information to share, who the participants are and the "best" methods to communicate (McDermott, 1998). For example, McDermott mentions the experience of Shell's Corporation with the nurturing of successful communities of practice. They started with a group of six to eight people meeting weekly to discuss some technical issues. It took them six months for

word to spread of the value of these discussions. Then the number of people that attended the weekly meetings increased to about forty.

ISUnion is created as an intentional community of practice, which is "intentional in its focus". But to develop the trust, connection and sharing of natural communication, it is necessary to support the natural process of community development instead of imposing an artificial one (McDermott, 1998).

Are these two entities of the ISUnion destined to be communities of practice? Only time will tell.

References

Brown, J., & Solomon, G., (1995). The People are the Company. http://www.fastcompany.com/online/01/people.html. (pp. 3-5)

Lave, J., & Wenger, E., (1991). Situated Learning: Legitimate Peripheral Participation. Cambridge, England. Cambridge University Press. (pp. 110-111)

McDermott, R., (1999). Knowing in Community: 10 Critical Success Factors in Building Communities of Practice. http://www.co-i-l.com/coil/knowledge-garden/cop/knowing.shtml. (pp. 2-4)

McDermott, R., (1999). Nurturing Three Dimensional Communities of Practice: How to get the most out of human networks. Knowledge Management Review. http://www.co-i-l.com/coil/knowledge-garden/cop/knowing.shtml. (pp. 1-2)

McDermott, R., (1998). Learning Across Teams: the Role of Communities of Practice in Team Organization. http://www.co-i-l.com/coil/knowledge-garden/cop/learning.shtml. (pp. 4-9)

Sharp, J., (1997). Key Hypotheses in Supporting Communities of Practice. . http://www.co-i-l.com/coil/knowledge-garden/cop/learning.shtml

Wenger, E., (1998). Communities of Practice: Learning as a Social System. http://www.co-i-l.com/coil/knowledge-garden/cop/cop/lss.shtml. (pp. 3-4)

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