

Communities of Practice: The Nuts and Bolts, Part 2

Presented by Dr. Etienne Wenger

LINDA BLONG: This is Linda Blong and on behalf of CalSTAT I want thank you all for making it onto the second call with Etienne. or those of you who weren't with us last time, Etienne went over the first half of the Power Point that was sent out, and mostly covered the foundations of what is a community of practice, how might we understand it, and how does that effect our thinking about the way we work together and the way we understand how other people work together. So I don't want to take up any more time with introductions. I hope you all get a chance to go to Etienne's website and explore because there's much to explore there. And I will then just turn it over to Etienne and thank him for being with us.

ETIENNE: Okay. Thank you. So unless someone has a question or comment or remark on what we've done last time, I'm just going to jump in and continue, but wanted to quickly leave the floor open for anything that came up if you were thinking about this during the week. Okay. Going once, going twice.

What I'm proposing to do here is to skip the "Learning for a Small Plant" part and keep that for the end, and jump into the section called "Community Development Models," which starts on slide 20. And just to put us in the mood again, I'm going to start with a story, and then use different models to push the story telling along a number of dimensions.

This is the story of a community of practice that was developed at Eli Lilly. Eli Lilly is a pharmaceutical company in Indianapolis. And that company had acquired a small lab in North Carolina. As is often the case in an acquisition like this, there were some tensions, some mistrusts between the two organizations. Pharmaceutical companies are very regulated, very process-oriented organizations. The small lab was much more of an innovative start up kind of culture. And the level of miscommunication and mistrust was causing some serious inefficiencies when a project was moved from the small lab into headquarters for the development. And a manager was asked to go look into that and she had heard about communities of practice. Actually there was a team at the time in the organization working with developing communities of practice, and she thought that she would try a different approach to the problem that would have been the traditional approach in an organization. The traditional approach would have been to redesign the hand-over process across that boundary, to formalize the hand-over process for a project. And so she decided that maybe a community approach that would build a community of practice across the boundary would actually be more useful.

And when she started to speak with some of these researchers, the response that she got was, "Yeah, you know, this idea ... we are scientists, we are serious people, we don't do community, this is just an HR thing, this is not us." And she had to really invite them into a reflection on the fact that science is actually a communal process—that science, through peer review, is very much a social process of producing knowledge and producing scientific truth, so called—and invited them to really reflect on their contribution as scientists and the degree to which these contribution actually depended on the quality of a community that they belonged to, and she was able to convince enough of them that they agreed to give the thing a try. And she started to get them to meet together.

One watershed event in the development of that community was when someone came up with the QBIT. QB stands for Quantitative Biology. And the reason why this was an important milestone in the development of this community is that it gave it an identity that was important to the members because it helped them get a better sense of the skills that they were bringing to their work. They were biologists but they were not just standard biologists. They were biologists who knew how to create tests for the effect of certain molecules on diseases, you know, whether it was reliably reproducible across time and quantitatively reproducible. And so getting this idea that no matter where they were working, they were all quantitative biologists, helped them get a sense of who they were, get a sense of their professional identity that didn't depend on which organizations they belonged to.

And once that was established, and the idea that the community would be important was established, then they also had to reflect on the quality of relationships in that community as part of the development process, and one issue that they had to address was the issue of hierarchy because, in pharmaceutical research, there was a fairly strong sense of hierarchy. You have senior research scientists who are very highly respected. Then you have different kinds of research assistants. And then you have lab technicians who are viewed as just implementers of instructions. And when it came down to really understanding why a test was not giving exactly the same results in the small lab as in headquarters, they actually needed the voice of everybody. They needed to hear everybody's take on that, including the lab technicians who would never speak in front of a research scientist, but whose decisions on how to turn the temperature or how to pour the chemicals were actually very important to understanding how a certain result was obtained in a test. So they really had to reflect on their community as a set of relationships and reflect on the fact that the quality of relationships in that community was important for the kind of work that they were able to do.

And then the next thing they had to do was to look at their practice—what they were doing on a day-to-day basis in developing these tests—that would actually explain why certain tests didn't give the same results when they were moved around. And the reason I'm starting this story is to start talking about important elements of community development.

And moving on now to the next slide, I guess for you it would be slide 21, here is a first model for looking at the development process of a community of practice, and at the core of that model is three elements: the domain, the community, and the practice. To me, these are fundamental elements of a community of practice, that each needs some attention if you are going to develop such a community. And here the domain ended up being Quantitative Biology. That's not the way that they had defined the domain originally, but when people got involved they found that this was really something that grabbed their identity so it was important for them to understand what the community was about and how that actually touched their professional identity.

The community element is another element. We're not just talking about a website here. We are talking about a group of people and a group of people whose relationships are important to the quality of learning that they can take place there.

And, finally, the element of practice, paying attention to what people do to the problems that they face in doing what they do. So here, we are not just talking about a community of interests. We are talking about a community of people who want to get together to learn how to do something better.

So to me, those three elements are key developmental elements in that story. I tried to bring out how each of these elements was addressed in the process of developing the community. And around these three fundamental elements or success factors, if you will, that we have found to be key for communities in organizations. Inside the yellow circle, that is inside the community, you have the two horizontal arrows that represent on the one hand the element of participation. What's in it for the participant? What kind of challenges do they have in their work that would even make them want to be a member and that would make the community relevant to what they needed to do? So the challenge of having tests that have to be redone ... a practical challenge actually triggered this community, which has now evolved actually beyond that results, they have addressed that challenge. But the community is not surviving. The trigger for participation has now evolved into focusing on Quantitative Biology more generally. And the other element, again inside the community on the other side, the nurturing element is also an important success factor that we have found in successful communities. There are members who care enough about the community to engage in activities to sustain the community.

So this woman, as a manager, first, her first task was to find allies among the potential members of that community who shared her vision of the community and were going to work with her. She could not, even though she was a biologist herself by training, in her position as a manager she could not have started that community if she had not found a few potential members of that community who were going to work with her and invest their own identities as members in the development of the community. So to find members who are willing to take a nurturing stance towards the community is actually a key success factor.

Now, outside the community we have found two other factors that can play a key role. On the top there, you have the notion of sponsorship. Now, the woman who started this Quantitative Biology community, she had to convince her boss that a community of practice was a good way to approach this problem and convince her boss that he should invest some resources in developing this community even though the people, the members of the community, did not report to him, and therefore he did not have direct control over the community. So sponsorship is a different form of relationship between hierarchical powers, if you will, and the members of a community where there is an investment of resources of authority but where that does not translate into control over the community or traditional management relationships.

And then the last element here is what I call support. This woman was not acting alone, as I said. There was a team there that was interested in communities of practice that was acting as a sounding board, if you will. When she was facing a problem, they were helping her with some technological issues that she was having in building a website for this community, and so on and so forth. And those, the sponsorship and the support, are often provided by people who are not directly members of the community, but help the process along, if you will. So this is the first model that I wanted to introduce.

And I said last time that I was going to invite you to bring in your own stories, to bring in your own experience of a community of practice. So, I'm going to do something that actually I have never done on the phone, so I don't know if it's going to succeed. But I decided to just jump in and take the risk. I usually do this in face-to-face workshops. Invite you to just spend a couple of minutes now at your own sites—and if you don't have a team, jot down a few observations of a community that you know—and

try to apply the elements of this model, to think about the story of this community, and to think about: “Okay, what was the domain? Why was it important? How were the community relationships among people playing a key role in the success or in the failure of the community to produce the learning that was expected, and how does it touch the practice? What was motivating people to participate? Who were the people who were taking a nurturing stance towards the community? Was there sponsorship on the part of the organization? Was the absence of sponsorship a problem, or, on the contrary, was it something that allowed the community to sort of evolve freely and so under the radar screen?”

So I’m going to propose now that you each, at your own site, spend a few minutes thinking about that and then we’re going to reflect on this together.

Okay. So do we have anything from your own reflects that you would like to share with the rest of us, whether it’s a question on the model, whether it’s a way that the model was applied to the situations you were thinking about?

MALE: I have a question.

ETIENNE: Yes.

MALE: Can you briefly describe the difference between a community of practice and a professional learning community?

ETIENNE: Well, I’m willing to if you tell me what you mean by a professional learning community.

MALE: Oh, well, a collaborative professional learning community ... is that different than the community of practice?

ETIENNE: Well, a community of practice is a perspective, if you will, that you can apply to different structures. So my question would be more not so much is it different or not. My question is: Is the community of practice model something that would apply to understand what you call a learning professional community is about? I’m assuming, for instance, that you would call a professional learning community some place where teachers get together to do professional development in a peer-to-peer learning context. Is that what you would call a professional learning community?

MALE: Professional learning community? Yeah. So they do sound the same.

ETIENNE: Well, the notion of a community of practice is a broader notion in the sense that some communities of practice are not professionally oriented, you know. So you could think of the community of practice that kids form on the playground. I have a colleague of mine who actually looked at an American high school in terms of the kind of communities of practice that kids form depending on whether they are learning together to be involved, to invest their identity in the school or to learn a practice of marginalization in the school, if you will. So looking at friendship cliques as communities of practice allowed her to see very different things that those kids were learning about who they were, how they related to the institution, what the kind of values that they were

developing. I would not call this a professional community. There was no profession. But it was clearly a community of practice.

MALE: Thank you.

ETIENNE: So, to me, the framework of a community of practice is a way of looking at a group as a learning system, if you will. And whether you apply that to a family, whether you apply this to a friendship clique, whether you apply this to people in a hobby, or whether you apply this to a professional context, a lot of the same elements are at play there. And, for instance, a friend of mine was doing an ethnography in a hospital, and she found a group of nurses who were meeting for lunch regularly. They were not calling themselves a community of practice or even a professional learning community, and yet if you really paid attention to what they were doing in those lunch meetings, these had become one of their main sources of knowledge, understanding, information sharing. But if you ask them what they were doing, they'd say, "Oh, we were just doing lunch." And yet when that research started to talk to them about seeing themselves as a community of practice, they became more self-conscious about the learning that was taking place during those lunches and at times just jotted down a few things that were coming up, a few ideas that were coming up, and actually even proposed some changes in the organization that had to do with how to help patients keep taking their medicine. So for them, seeing their lunch as a community of practice was a different way of thinking about that lunch that actually helped them become more self-conscious about learning together and about making sure that some pearls that came out of that learning were actually captured.

LINDA BLONG: So, Etienne, if I'm understanding it, it's partly becoming more purposeful by looking at it through this filter or using this model to look at what we already do, or we can become more aware of nurturing that and being more purposeful about it.

ETIENNE: That is right. It's a perspective that allows you to think of a group in a specific way, and to think about how to develop. For instance, let me give you an example. A team by itself is usually not a community of practice because the goal of a team is not so much to learn from each other and to learn together; it's to accomplish a certain task. And I was trying to make this difference between a team and a community of practice with a group, and their reaction was, "Huh, that's interesting because being a team or being a community of practice for us is not so much a difference between one group and another, but it seems to be a difference between moments in the existence of our group so that there seems to be a moment where we act together really as a team and we are focused on delivering on our tasks. And there are moments where we seem to act together more as a community of practice, reflecting on our learning, developing our practice." So for them, the distinction between team and community of practice was not so much a distinction between different groupings, but more a distinction between the kind of expectations that existed of each other when they were acting as a community of practice and when they were acting as a team.

But if you go in different organizations, communities of practice have all sorts of names, you know. So in an automotive company, they were calling those tech clubs, you know, because for them it was very much about technology. So they're calling their

communities of practice tech clubs. At the World Bank they call their communities of practice thematic groups, you know. Now you brought up the name professional learning communities. Some people call them learning networks. There are all sorts of names. And to me, you know, the notion of communities of practice is a question that you ask a community or a network. Do we have a domain? Do we have a sense of who we are and what we are about? So in that sense, it's more specific than just a network. How well are relationships supporting our ability to learn from each other? Have we created enough trust among each other that our community can serve as a social container for processes of learning?

In the Quantitative Biology example, it took a while for them to really open up to each other across the boundary between the two organizations. So developing trust was part of the work of developing the community, and that included reflecting on the state of the community that included also sometimes just playing games together, going to restaurants together. And then the third element, this element of practice; that is: Are we deepening our practice? are we deepening our ability to do what we need to do in a context of higher domain? Are we accumulating knowledge, if you will, into a practice that we share? So there are issues of memories, for instance, that you want to take into account when you talk about a community of practice, you know. So a team does not necessarily care about capturing the lessons that are being learned in that team. That's another dimension beyond the task—to try to say, “Okay, what are we learning here, you know? And who should know?” Any other reflections that came out of thinking through this model for a group you were thinking about?

LINDA BLONG: Well, one question I have, Etienne, has to do with the tension between sponsorship and nurturing. That is, from the model, you need both and yet it seems like there's a sort of a dance between sponsorship and support being available from somewhat of an outsider but not having that not get in the way of the participation and nurturing kind of emerging from within.

ETIENNE: Yes. I think you are putting your finger on a very important point here. Actually I was in Australia recently and a principal was there with her—I don't know if I remember I mentioned this story last time—but anyway a principal was there with 12 of her teachers in a workshop we were doing and she was reflecting on what it took for her to engage her faculty in forming a variety of communities of practice and part of it was that to let go of her natural tendency to try to control the process, to try to control the definition of domains, to try to control the kind of focus on practice and the kind of learning that they were doing. And yet, she was clearly sponsoring the process because she was actually rearranging the schedule so that these teachers could actually meet once a week together. And so she was clearly sponsoring the process, but for her she was [balancing] this tension between acting as a sponsor and therefore taking some responsibility for the fact that this should be a productive process, and yet having to let go because one thing that really made the teachers engaged in that process is when they really believed that it was for real, that the principal was saying, “Listen, these communities are going to focus on the issues that you care about and you're going to be in charge of the learning agenda of those communities.”

So the nurturing was really something that the teachers were taking on, the nurturing of their own community, and yet they were under the sponsorship of a principal, who was in a position of hierarchical authority and yet was not using that

position of hierarchical authority to micromanage those communities. But it is attention. Because sometimes you explain to a manager, “Yes, these communities have to be self managed. They have to have a sense of ownership of their learning process and of their learning agenda; otherwise, it’s going to just feel like work as usual.” And so the reaction is, “Oh, okay, I should leave them alone then.” And my direction is, “No, no.” Because if you leave them alone, it’s the other side of the control coin, if you will. If I can’t control them, I have to leave them alone. You know what I mean? So there is a new relationship there which has to do with sort of understanding the need for learning processes to be in the hands of the practitioners, and yet engaging with them so that it remains connected to the organization and not marginalized.

But I would say, if you ask me, that as we move into the 21st century, that’s going to be one of the big challenges for organizations—to live in that tension and not resolve it in any simple way, but to actually live in that paradox and make it productive.

Anything else that came up in your reflections? Okay. So if we don’t have anything else on this model, I wanted to invite you into the next model, “Cultivating Participation.” And this is a structure of a community that we have seen again and again, and actually distinguishes a community of practice from a team that is very often in a community of practice what you have is that you have a core group of people who are really engaged with the domain, who are really engaged with nurturing the community. And around that core group you have a group of active participants who are always there, who contribute to the community, ask questions, and are really engaged members. Around that you often have a group of people that are occasional participants; that is, they participate whenever the topic is interesting to them but they don’t feel a commitment to the community as such. And very often around a group, you have a group of peripheral participants who want to keep in touch with what the community is about, but they don’t feel like they are really practitioners themselves.

And so the structure of gradations of commitment is something that we have seen in many communities and is not really a problem unless it reproduces some other boundary like for instance if you go into an organization and everybody in headquarters and in the core group and everybody in the field is in a peripheral group, then there may be a problem there because there the community is reproducing another boundary that is outside of the practice itself.

So if you apply this model to the communities you were reflecting on, is it something that you’ve seen? Is it something that has caused a problem?

LINDA BLONG: I could see that it’s a problem if the core group and the active group are the ones that are making decisions and driving things, and then the peripheral are transactional people will come in occasionally just keeping everybody a part of the process.

ETIENNE: So you are saying that it can become a problem if there is too much power in the core group and the active group?

LINDA BLONG: I could see that it might be.

ETIENNE: Yeah. That is true. But in some sense power relationships in a community has to do with engagement. Since you don’t have sort of a clear hierarchy as you would have in a formal organization, it is true that you gain power in a

community to the extent that you become engaged in it and that you gain a reputation as a valued contributor.

LINDA BLONG: True.

MALE: I think the issue might be the fact that if it's just a core, active group, that you're not getting the perspective of a larger group. You may have a narrower focus and not be able to develop the practice as highly as you'd like to because the need for the input from other members may not be as active as you need to really go where you want the group to go.

ETIENNE: That's right. That's a good point. And actually my experience of what I call a community coordinator, or a person who is really taking a serious nurturing stance towards the community, this person's important role is to keep in touch with different kinds of members and understand what issues they have so that the activities of the community can serve these multiple constituencies.

One of the more successful community coordinators I've met told me I should have a phone implanted in my head because a lot of my work for the community is just happening in one-on-one conversations with members. That's what give me a sense of the pulse of the community because the more visible part of the community—the meetings or the presence on the Web—does not necessarily reflect the kind of issues that people are facing.

LINDA BLONG: Can you say more about the community coordinator and their role in nurturing, how you've seen that emerge and be in a place where that person's commitment can be sustained and not be drained?

ETIENNE: Actually, I've seen different models for that. In some communities it's very obvious where that person should be and everybody agrees. So in some organizations, actually, it's not understood as a job, so that person's time would be freed up to some extent—maybe like 20 percent of their job—is supporting the community. In some organizations they just rotate. I've seen communities where it's a one-year commitment. If you commit to being the coordinator, you commit for a year and then somebody else takes over because it is a job where you can easily burn out. There's even a company at Schlumberger where they have elections, and it's an elected post to be the coordinator.

But if I work with a coordinator, one of the things that I recommend as an activity is to nurture a core group that can take over some of the functions of the coordinator. So I would say that a disease of a community as it matures would be if it remains too dependent on one person doing everything. That's usually not a very good sign for a community. So a sign of health for a community that's maturing is that more people value the community enough that they are willing to join the coordinator in sharing some of the burden. But I've seen also some communities die a premature death because the coordinator just burned out and stopped.

LINDA BLONG: So it sounds like one thing a sponsor could do is support that role in some way by funds or something like that.

ETIENNE: Absolutely. Yes. Funds are important. Recognition sometimes is also important too because these people, their roles can be somewhat invisible. They let the community find its voice, but it's not like a team leader where you have the leader and the followers, you know what I mean? A community coordinator is not a leader in that sense; it's more sort of leadership by giving the community a voice. And as I was saying, a lot of the work happens in one-on-one conversations and therefore is not all that visible.

So, absolutely. One of the roles of the sponsor is to support the coordinator in what they do, whether that means supporting them with resources, supporting them with visibility, with recognition, or with a voice—sometimes the voice in the organization also. Actually, in (inaudible) disease, a community that I mentioned earlier, in this case without really a sponsor, the community coordinator is gaining quite a bit of reputation in that field by doing that role. And that's something that's quite rewarding to him. So in some organizations, having been a successful community coordinator gains you some reputation, you know what I mean, as people look for who should take leadership in something else than a community. So it can be a platform for gaining a reputation. Okay?

LINDA BLONG: Thanks, Etienne. That helps a lot. One of my team members here just asked about the distance between the sponsor. I mean, you also wouldn't want the community coordinator to end up looking like sort of sponsor's lackey or something like that. I don't know. Or exerting control indirectly somehow.

ETIENNE: That is right. Oh yeah. That is a very good point. That sense of ownership of the community, that's why I usually recommend that nobody in the community be a full-time coordinator. If there is enough work and if it's a very large community that has a lot of activity, it's usually better to have a team of 2 or 3 people who have 20 percent of their time or something associated with it, rather than a full-time coordinator, because once you become a full-time coordinator, practitioners tend to view you as a function person, you know. You don't know what it's like, kind of thing. So yes, that distance is a very, very important point and you don't want any sense that the coordinator is—lackey may be even too strong a term, but simply representing some other power than the community.

LINDA BLONG: Good point.

ETIENNE: But it's sort of interesting, you know, to think that in the last 10 to 20 years these notions of communities have grown in organizations, and organizations are paying attention. That's amazing in fact, if you think of business organizations that used to work on a totalitaristic model—where knowledge is extracted from practice, translated into processes and procedures, and then served back into practice—to think that now some of these corporations and schools are starting to want to nurture horizontal, peer-to-peer networks. I think that's a substantial change. I mean, we're not there yet, as I said. It's a learning curve for organizations. But it's substantial.

Anything else? Okay, if that's not the case, then let's move on here to the next slide called "Stages of Development." And what this model is trying to address is the fact that the community can look very different at different stages of development, a little bit like a relationship going through stages. What makes you fall in love in high school

and the kind of activities you enjoy and nurture your community in high school can be very, very different than what keeps you together in your retirement, and yet it's the same relationship that has evolved. And what we have found is that communities really evolve a lot. And in the case of the Quantitative Biology community, what was interesting is that the original problem that brought them together was addressed and the community kind of rediscovered another value for itself, which was to just engage people in conversations about Quantitative Biology more generally. And actually the community grew beyond just the people who were involved in the boundary between those two organizations to involve about 400 people across the organization in a model that was much more [like the one] with the concentric circles. But the community kind of reinvented itself over time in the same way that—actually a successful relationship really reinvents itself continually as it goes through different stages.

And if you think of, for instance, the stages of dating in a relationship, communities go through a stage like this. Communities often start somewhat tentatively. Is there something here? Should we be together? And sometimes to have the patience to let a community discover itself, to engage them in activities that allow them to find the value of being in a community without making a big long-term commitment—it's a little bit like your first date. You don't go to your first date with a life plan. You go to your first date with the hope that it's going to be enjoyable enough that you're going to want another one. You know what I mean? So there is something like this.

It's a bit different from a team. If you want to start a team, usually you have to have a plan. This is our team, this is what we want to achieve, and usually your chances of succeeding with a team depend on the quality of the plan that you present, even though there may be some changes that come later, but the commitment is to a plan.

Whereas, in a community, the commitment is often to the value that each encounter generates. And of course, these stages are not so sequential. You may have, you know, a whole bunch of kids and have been married for 20 years; it's still good to have a date from time to time to re-understand the value of being together. So on the side, it looks like sequential stages, but they kind of build on each other. But communities do, at some point, go through something like a marriage, like a wedding ... some do and some don't. I'm not saying that all communities go through all these stages, but often there is a point where they go through kind of launch event or some sense of commitment to each other and when they do that, then they have also a responsibility for, for instance, making sure that everybody who should be involved is.

So often communities start as a small group of people, almost like a friendship club, and they come to a point where they have to ask themselves who should be here, who is our community. And in the same way that a relationship that is solid and well-established can start engaging in activities like having kids, which are not the relationship itself. They are using the relationship to do something else. So there again some activities are good at a certain level of maturity, but if you started with that you could kill the relationship. So having kids when you're in high school can kill the relationship. If you have a well-established relationship, it can be its blossoming.

So, for instance, in a Quantitative Biology community they started really by just focusing on their experience as a community. It was a fairly small group. They opened the website only about a year and a few months after the community had started. If they had started talking about opening a website and so on and so forth when they were still in the dating stage, it would have destroyed that community, I think.

So what I'm saying is to be sensitized to the fact that the community's kind of a living thing that has an evolutionary past to it, and that it's an evolution that you cannot completely plan in advance, which is an important part of understand the development there. But finding those activities—a small story that I'd like to mention is my father. We were recording his life story and he told us this cute story. He said, "Well, when I first dated your mom, the first thing I did was to take her to a museum," and he said, "because if you take her to a concert or a movie you just sit there. But in a museum you talk, you look at paintings and you talk." And [it was] almost like a little technique that he had developed to get to know a person by taking his dates to a museum and to get to talk, to get to see what happens when we are together and we look at a painting. And so to find these early activities for a community that would get people to see the value of being together can be a really critical developmental process.

Any other comments here on this notion of Stages of Development and different activity structures that are appropriate ...

And of course, the end: the fact that the community of practice is not meant to live forever. There's a point where it has done its job and it can dissolve as any living entity that has kind of a life cycle.

The next one—and I'm going to have to be quick now because I see we are approaching our time—but the next one, and you can just look at it yourself, this is a new piece of research that we have done. It is actually not published yet. We have found that different communities have different orientations to activities, and, therefore, can look very differently. For instance, one important orientation that we have found is a meeting orientation. Some communities are really defined by the fact that they meet at regular times and it's that time together that really defines them, whether they meet face to face or whether they meet on a video conference or whether they meet on a teleconference. It's those moments of being directly together that defines the community.

Some other communities we found have more open-ended conversations. You find that more on the Web where you have a discussion board, and what defines the community is that regularly someone asks a question and there is a discussion. But it's almost like it doesn't have the same rhythm of meetings. It's more like this open-ended. Sometimes it's by email even, an e-mail list of conversation that the community is sustaining.

Some communities are very oriented towards a project. They want to do things together. I think I mentioned last time, this community on school mental health that I was working with, and one thing that they did was to define ten issues that they wanted to work on, and people volunteered to join these little project teams to go investigate an issue; for instance community clinics and the relationship to schools, they wanted to look into that. So for them what defined their community is that they defined projects that they wanted to get involved with and make some progress on an issue.

So we found that when you look at a community you can almost use these orientations to do a profile. It's not that these are mutually exclusive, by the way. But, some communities are more oriented towards meeting, they may have an open-ended conversation or not, but it's less the essence of the community. Some communities put a lot of emphasis on relationships, on establishing relationships. If they have a website, people have their own little personal page where they have pictures of their kids and description of their hobbies. You know what I mean? It's like the interpersonal aspect of the community is very important and part of the sense of identity that that community is

developing. The reason why we find that these orientations interesting is that we've found a lot of variety in the ways that communities of practice find themselves.

And the next slide is part of the same piece of research where we looked at tools that communities have been using, and we tried to place them on the landscape, and that landscape is defined by three dimensions that we found—three tensions, if you will—that we found key to communities and to the sense of togetherness that successful communities establish. And so the horizontal axis of that diagram, the asynchronies synchronies have to do with time and space, is that establishing a sense of togetherness across time and space is something that communities use technology to enable. So being able to communicate when you are not in the same place at the same time can be important for some communities and technologies like a discussion board or a blog or a wikipedia can be important in doing that.

The other dimension, the vertical dimensions, is a tension between interacting and publishing. Some communities place more emphasis on the kind of interactions that they can do. Some others really place emphasis on publishing and use technologies to share files, to share class notes or lesson plans and things like this.

And then the third dimension that is under this diagram is the group versus individual dimension. More and more communities cannot assume that they have the full attention of their members. Actually, I was speaking with a person the other day and he told me, "Oh, yeah, yeah, yeah, I know what you're talking about. I belong to about 40 of those communities." Can you imagine managing 40 different memberships in different communities? So managing that tension between the group and the individual is another way that technology is used. So for him, one of the ways that he was managing this belonging to different lists on the Web (a lot of those communities were online communities) was with a technology called RSS—an RSS aggregator. That's a system by which you can subscribe to different Web pages on the Internet and see all in one at a glance, if you will, what has happened in the different groups that you belong to.

So this gives you a listing of technological tools that we have seen communities do. And so, for instance, if you look at telephone and teleconference, they are both more on the interacting side of things, but the telephone is more used for individual communication, and the teleconference is more used for group communication, and that's why telephone is more towards the individual side of things and teleconference is more towards the group side of things. ... It's kind of subjective, it's more like a (inaudible) for meditation than a scientific statement because things could be placed in many different ways. And it gives you a sense of the kind of technological tools that we have seen communities use. I guess, Linda, we probably need to close here.

LINDA BLONG: Yes. I think probably we do, although it seems like the time just ran away.

ETIENNE: Yes, it did. The next slide I'm going to skip. If some people want the paper that goes with this slide, I can—but it's more at an organizational level to start thinking about communities in terms of a knowledge strategy. And the last few slides now, going back to the Learning for a Small Plant is on slide 16, lately my interest has really been in starting to think about large-scale systems of multiple communities that create a learning system. And it was interesting because I was speaking with a doctor at the WHO in Geneva, and he told me, "Yeah, this notion of a learning system is really

key because in health, for instance, we know 95 percent of what we need to know to save 95 percent of kids who die unnecessarily on Earth today. The rest is a question of building the proper sort of learning system that would allow us to actually put this into practice.” So he was saying health is as much a matter of organizing social learning systems as it is a matter of direct research. I thought that was interesting. And in some sense, trying to understand how we can enhance the learning capability of social systems is becoming kind of a moral debt, that we have to start to invest in these network-based, community-based learning system as a way to think about addressing the problems that we face today in the world.

And, therefore, if we now move to the next slide, it is a question of learning capability. I was going to leave you with this question because it’s one that I’m starting to find central to my own preoccupation as a researcher and as a thinker, and as a consultant as well, is just not enough. How can I or we as—and you fill in the blank: teachers, researchers, parents, and so on and so forth—contribute to the learning capability of the planet by enhancing the learning capability of our or my own sphere of participating? So what does it mean to think about the learning capability of a person, of a small group, or of a broader system? And this is to me the question that is at the core of a new institute that I just started called Learning for a Small Planet, to start thinking about the fact that our planet is becoming more and more interconnected as a learning challenge. So Linda, this is what I wanted to end on today.

LINDA BLONG: That’s a great thing to end on, and I know many people in this community are pretty committed to enhancing the learning capability of the planet and starting from their school sites and their own communities.

ETIENNE: Yes. And it is a confounding question because if I think about, for instance, what I’ve done with my kids, to what extent have I increased their learning capability as their father, or just cram their head with ideas, you know what I mean? And I think for schools it is an interesting question to ask. Are we creating learners or are we creating heads full of stuff, which is not necessarily the same thing?

LINDA BLONG: Absolutely, and very much a struggle at this point for in a lot of schools.

ETIENNE: I’m sure.

LINDA BLONG: Well, I want to thank you, Etienne. You’ve given us a lot to work on. And the next thing we’ll be doing with this, at CalSTAT, anyway is exploring how do we take the many ideas that you’ve given us and move them forward to continue to find opportunities .. nurture learning communities ... Thank you very much. And if you in the community, if you all have any ideas or follow-up suggestions you’d like to make, any questions, you can email them in to CalSTAT folks and we will see what we can do to continue to interact and to address those.