

# Community of Practice Development Manual a step-by-step guide for designing and developing a

COMMUNITY OF PRACTICE

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# Beach Center on Disability

### **Table of Contents**

	Acknowledgements	ii	
	Prologue	ii	
Chapter 1	Introduction: What is a Community of Practice?	1	
Chapter 2	The Community of Practice Charter		
Chapter 3	The Architecture of a Virtual Community of Practice	12	
Chapter 4	Facilitation—A Social Art	17	
Chapter 5	Evaluating a Community of Practice	20	
Chapter 6	Learned Lessons	23	
	References Cited	24	
Appendix A	CoP Design/Feature Elements	26	
Appendix B	Chuck's 4 R's	28	
Appendix C	You're invited to our community of practice	30	
Appendix D	Words of the Week	31	
Appendix E	Early Childhood Family Support CoP Evaluation	34	

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# Prologue

Developing and participating in an active community of practice (CoP) has revolutionized the way we at the Beach Center on Disability approach our research, disseminate information, and expand our knowledge base. We characterize this change as our "Copernican Revolution," moving from a traditional view of researchers being in the center of the early childhood knowledge universe to ensuring that families and children are in the center and that resources encircle them. Developing our CoP has been a very rewarding process. We hope this manual will ease the development of your CoP and that it will help you to experience as much satisfaction as we have.



s the name suggests, a community of practice (CoP) is a group of people who come together to focus on a specific topic or issue. Jean Lave and Etienne Wenger were the first to talk about CoPs as a set of relations between people, activities, and the world (Lave & Wenger 1991). Later, Wenger and colleagues refined the definition of a CoP to "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger, McDermott, & Snyder 2002, p. 4). The key concept behind CoP is the sharing of knowledge. Within successful CoPs the sum of the community knowledge becomes greater than the sum of individual participant knowledge (Gherardi & Nicolini, 2000).

CoPs have become important within a variety of contexts including business, government, academia, and social services for a number of reasons. Cambridge, Kaplan, and Suter (2005) provided seven reasons.

# CHAPTER 1

'hat is a Community of Practice?

- 1. They connect people who may never come into contact otherwise.
- 2. They provide a shared context for people to communicate and share information.
- 3. They enable dialogue between people who have an interest in solving the same or similar problems.
- 4. They stimulate learning by serving as a vehicle for communication, mentoring, coaching, or self-reflection.
- 5. They capture and diffuse existing knowledge.
- 6. They introduce collaborative processes and encourage the free flow of ideas and information. They help people organize around purposeful actions.
- 7. They generate new knowledge.

### Characteristics of CoPs

### **Mutual Engagement**

In a CoP people are engaged in actions whose meanings they negotiate.

### Joint Enterprise

Working together pushes practice forward and keeps it in check; creates and directs social energy; spurs action and gives it focus; invites new ideas and sorts them.

### **Shared Repertoire**

A CoP includes routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions, or concepts the community produced or adopted.

Wenger 1998, pp. 73-85

CoPs enable people doing related work or facing similar challenges to share their knowledge and solutions and as a result achieve the greatest good for the greatest number (Wheatley & Frieze, 2007).

One of the primary problems CoPs address is the distribution of tacit knowledge or "know-how," which is generated in practice and embedded in people. "It is because they share a common practice, that they also share an understanding of this practice and use a common language that enables the sharing of know-how" (Koeglreiter, Smith, & Torlina, 2006, pp. 8-9). Others have referred to this as experiential knowledge, which develops over time and through a variety of experiences, places, and activities. "By building on its members' shared knowledge, a CoP can be useful in developing new ideas and new strategies" (NCDDR, 2005, p. 1).

Despite this accomplishment, we felt that the Early Childhood Family Support CoP was not achieving its full potential. Additionally, our activities continued to be very academic in nature, included only a small number of the stakeholders in early childhood, and did not fully address the information needs of families. We wanted a community in which all stakeholders were equals in creating knowledge that leads all to take wise action. To address each of these issues we began to explore ways to transfer our CoP to a web-based format. We learned about the Research Utilization Support and Help (RUSH) Project,

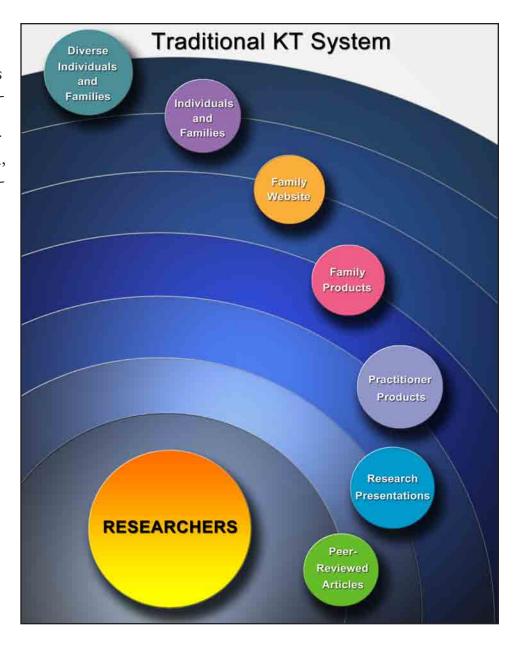
### http://www.researchutilization.org,

an initiative of SEDL funded via a cooperative agreement with the National Institute on Disability and Rehabilitation Research (NIDRR)

# http://www.ed.gov/about/offices/list/osers/nidrr/index.html.

The RUSH project is developing and testing models for increasing the

effective use of NIDRR-sponsored research results. In 2007, RUSH awarded Research Utilization Awards to NIDRR grantees such as the Beach Center on Disability who proposed innovative utilization strategies that inform these models. We applied for a RUA, which provided us with the initial funds to develop the online version of the Early Childhood Family Support CoP. Moving the CoP to an online format enabled us to include many more people in the community activities.



"We wanted a community in which all stakeholders were equals in creating knowledge that leads all to take wise action."

### **Five Stages of CoPs**

#### **Potential**

A loose network of people recognizes common interests around a key issue.

### Coalescing

The community establishes the value of sharing knowledge and develops relationships and sufficient trust.

### **Maturing**

The community clarifies its focus, role, and boundaries. Shifts from sharing tips to developing a body of knowledge.

#### Stewardship

The community must maintain its relevance and its voice, keep the tone and focus lively and engaging, and keep itself on the cutting edge.

#### **Transformation**

Communities naturally transform or die. Sometimes communities split into new communities or they merge with other communities. Sometimes they lose relevance and die.

Wenger, McDermott, & Snyder, 2002

CoPs include three elements that should be developed simultaneously for a community to be effective (Wenger, McDermott, & Snyder, 2002, p. 27). These elements are (a) the domain of knowledge, (b) the community of people, and (c) the shared knowledge and practice

associated with the internet, it has become both time-efficient and cost effective to host CoPs online. These are alternately called virtual CoPs (Casalini, Janowski, Estevez, 2006), online CoPs (Johnson, 2001), or web-supported communities (Barab, Kling, & Gray, 2004).

"Communities of practice are an integral part of our daily lives. They are so informal and so pervasive that they rarely come to explicit focus, but for the same reasons they are also quite familiar. Although the term may be new, the experience is not" (Wenger 1998, p. 7).

the members are developing. The purposes and activities engaged in by CoPs have been described as task-based, practice-based, and knowledge-based (Reil & Polin, 2004). CoPs have been suggested as one strategy to close the research-to-practice gap by modifying the direct, top-down relationship between those who produce knowledge and those who use it (Wesley & Buysse, 2006).

### Virtual Community of Practice

As Wenger (1998) noted, we all belong to CoPs whether we realize it or not. Traditionally, these have been face-to-face CoPs at home, at work, at school, or in our hobbies; but they all helped us learn and organize our tasks so that we can get things done as efficiently as possible. With the advancement of information and communication technologies, especially those

Regardless of what they are called, the flexibility, interactivity, multimedia, and personalization aspects of internet technologies make knowledge creation, sharing, and dissemination relatively simple for large groups of people (de Vries & Kommers, 2004). This is particularly true when communities support professional discussion and work (Preece, Abras, & Maloney-Krichmar, 2004) or when they are meant to include a broad range of people across geographical barriers and time zones (Johnson, 2001).



### Traditional and Virtual Communities Compared

#### **Traditional Communities of Practice**

Community exists in relationship to an idea or task.

Social interactions are the greatest community strength.

Group is place-based.

Group dynamics often override individual expression, norms dominate.

Formal boundaries clearly define who is a member and who is not.

Experts caution designers of virtual communities to take social interactions into account as much as they consider usability (Barab, Kling, & Gray, 2004; Preece, 2002) and urge an attitude shift from "Designing Web-supported Communities" to "Designing For Web-supported Communities" (Barab, Kling, & Gray, 2004, p.5) so that one avoids the pitfall of imposing an external structure on the group instead of allowing meaningful structures and topics to emerge from group membership.

### **Early Childhood Family Support CoP**

At the Beach Center on Disability the focus of our research and training activities is on making a significant and sustainable difference in family and individual quality of life (http://www.beachcenter. org/). To advance this effort, we recently began to look at how families and individuals with disabilities receive information. As the figure below depicts, ideas for research traditionally came out of the researchers' values, vision, and context. Furthermore, the first to benefit from the research have usually been researchers themselves (Turnbull, et al., in press). The last to see the results of research typically have been practitioners and the families they served, particularly families from culturally and linguistically diverse families (often referred to in federal policy as underserved families).

#### Virtual Communities or Practice

Community exists in relationship to an idea or task.

Social interactions are the greatest community strength.

Group is separated by space and time; based in networked technologies.

Norms do not dominate allowing for greater individual control.

Membership is fluid; more people have access to group knowledge.

(Johnson, 2001, p. 51)

This situation prompted us to explore ways in which the "developers" of knowledge could partner with the "end-users" of knowledge to enhance awareness, attitudes, and behaviors in both groups. Most recently, we discovered CoPs and became convinced that they provided a way to rearrange the hierarchy of knowledge creation, dissemination, and utilization. Our first CoP was focused on family supports in early childhood programs. We initially facilitated the Early Childhood Family Support CoP through face-to-face meetings, email, and teleconferences. Our interest was to synthesize existing knowledge and collaboratively generate new knowledge related to family supports and services and to translate this new knowledge into federal and state policy and into family supports and services in order to enhance positive outcomes. At the beginning, the CoP included four stakeholder groups: families, practitioners, researchers, and university teachers from across the United States. Our projects within the traditional CoP included three face-to-face meetings in Lawrence, Kansas; Little Rock, Arkansas; and Washington, DC. We also were able to facilitate ongoing teleconferences and email exchanges. The result of these activities was a collaboratively written position paper addressing the gaps related to family supports and services. The paper was co-authored by 20 CoP members and was published in the Journal of Early Intervention (Turnbull et al., 2007).

We launched the online version of the Early Childhood Family Support CoP on June 14, 2007. To visit the CoP you can link to the following address:

# http://beachcop.beachcenter.org/CommunityBrowser.aspx.

Click "Early Childhood Family Support" under the heading that says, "Our Communities."

As of mid-March 2008, we have 373 members from the following stakeholder groups (some members cut across two or more groups): family members, professionals, students, researchers / university teachers, and policy leaders. These members are from 40 states and 5 countries. We know through webtracking data that the members, who provide all of the content in the CoP, constitute only three percent of the visitors to the site, indicating that the information on the CoP is reaching a broader audience than its membership.

We will use the lessons learned through the development of this online CoP to illustrate the remaining chapters of this manual. The remainder of the Manual is intended to provide a "how to" approach rather that "what is" approach to CoPs. As

Early Childhood Family Support - Sign In **Early Childhood Family Support** Search Contributions Discussions Remember me at this compute Sign In Announcement: Pederal Medicaid Discussion on Caregiving • Discussion: Are you familiar with Family as Faculty? What are your experiences? Community Explorer • Resource: # Family Quality of Life Conversation Guide. G G G ☐ 8 Early Childhood Family Resources and Links Participate A Search... Show Quiz

What time of day do you visit the CoP most often? Latest Contributions Build Your Own Care Notebook by Private Modified Thu, May 22, 12:28 PM @ Medical Resume for a Child by Private Created Wed, May 21, 5:17 PM A Family Guide to Common Terms Associated with Positive Behavior Support by Private Modified Thu, May 22, 11:30 AM Podcasts: What are they? by Private Created Wed, May 21, 4:43 PM Latest Discussions Letter Granting Permission to Evaluate your Child Started by Private Created Today 3:58 PM Letter Requesting Independent Evaluation Started by Private Created Today 3:52 PM Are you familiar with Family Faculty? Your experiences? Started by Private, Last reply by Private. Yesterday 1:48 PM Pederal Medicaid Discussion on Caregiving Started by Private Created Yesterday 10:50 AM Adam's pew Started by Private , Last reply by Private Thursday Last Week 9:10 PM Children's Hospital Boston request Started by Private, Last reply by Private. Thursday Last Week 8:58 PM Pamilies as Faculty Started by Private , Last reply by Private Tuesday Last Week 2:55 PM PEP Electronic Attendance Request Started by Private , Last reply by Private Tuesday Last Week 1:00 PM

a result, we provide information in the same order CoPs are developed. The following chapters provide step-by-step instructions and examples:

- developing a charter for your CoP (Chapter 2)
- creating the architecture of your CoP (Chapter 3)
- facilitating activity in your CoP (Chapter 4)
- evaluating your CoP (Chapter 5).

In addition, we have embedded tips and examples throughout the manual that highlight specific steps in the development of a CoP.



# CHAPTER 2

he Community of Practice Charter

he successful launch of a
CoP begins with the development
of a charter. The charter is a formal
written vision statement about the
core purpose of your
CoP. It often includes
the mission, principles,
and goals of the CoP.
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number of things you may want to think about as you develop a charter for your CoP, we identified six key components that are extremely helpful in the development of a CoP. These are:

- a background statement,
- a vision statement,
- a mission statement,
- a statement of goals and principles, and
- an identification of potential members.

### Background Statement.

A background statement for your CoP is essential because it helps set the course for all other aspects of your CoP. The first thing that should be included in your background statement is an explanation of the environment that created the need for your CoP.

For example, our Early Childhood Family Support CoP developed out of an environment in which families and service providers were far removed from the development of research and policy questions as well as the results of research. For an illustration of this problem, please see the Traditional KT System figure in Chapter 1, page 5 (Turnbull, et al., in press).

The second and equally important

"They Key Concept behind CoP is the sharing of knowledge" aspect of the background statement is a description of the value your CoP will have to your organization and the value it will have to individual members.

We learned this lesson during a training session with the software company Tomoye Corporation (www.tomoye. com) which developed the Ecco software we use to support our online CoPs (see Chapter 3 for a discussion of software packages). They taught us that the value of a CoP to an

Six Key Components of a CoP Charter

### **Background**

Explaining the environment that creates the need.

#### Membership

The audience you want to serve and leadership structure.

#### Vision

A statement about the ultimate outcomes and value of the community.

#### Mission

A statement about the core purpose of the community.

#### Goals

Specific actions your community will take in order to fulfill its mission and vision.

### **Principles**

How you want to operate the community.

M. Prevou (personal communication, January 8, 2007)

organization depends upon the type of organization (e.g., business, not-for-profit, education) and the mission of the organization. In our case, the Beach Center is a research center based in a large public university (The University of Kansas) with the mission of making a "significant and sustainable difference in the quality of life of families and individuals affected by disability and of those who are closely involved with them" (http://www.beachcenter. org/about\_us.aspx). Given the nature and mission of our center, the value of the Early Childhood Family Support CoP was that it put us in direct contact with families and early childhood practitioners thereby making it possible for our research and dissemination efforts to be guided by their needs and concerns. In fact, the value of the CoP for all stakeholders is that it allows them to have direct contact with one another, giving them access to information that they may not find otherwise.

### Key Roles and Responsibilities in CoPs

These four roles are essential for the success of a virtual CoP. Each of these may be broken down into other roles depending on the needs of your CoP.

#### **Administrator**

Manages the technical and administrative aspects of the community.

#### Facilitator(s)

Stimulates participation and value for members (see Chapter 4).

#### **Contributors**

Add content in the form of discussions and materials that advance the mission of the CoP.

#### Lurkers

View, use, and disseminate content beyond the CoP but do not contribute content.

In order to state the value of your CoP to its members, you first need to answer a few questions.

These questions include:

- 1. Who will your community serve? Who are your stakeholders?
- 2. What will members get out of your community?
- 3. Why would they want to contribute to the community?

In terms of the Early Childhood Family Support CoP, our stakeholders included family members of young children with disabilities, early childhood professionals who served families and children, researchers, and university teachers in the field of early childhood, policy makers, and students. We expected that each of these stakeholder groups

would gain access to valuable information that would help each of them improve the quality of life of families and children affected by disability. Lastly, we believed the stakeholders would participate in our CoP to both get and give information. Each of these points is reflected in our vision statement.

### Membership.

To a large extent, you address membership issues in the Background Statement when you answer the questions, "Who will your community serve?" and "Who are your stakeholders?" In developing the Charter for the Early Childhood Family Support CoP, we listed the stakeholder groups and defined them. Explicitly stating who your stakeholders are will help a great deal as you work on the remainder of your charter and make decisions about your CoP. The audience you want to serve is not your only membership consideration. Another important issue to be addressed at this time is the leadership structure of your CoP—the roles and responsibilities members of your organization and

the stakeholder groups will have. There are a number of different roles within a CoP but they may not all be appropriate for your CoP. Additionally, as your CoP evolves you may find that roles shift as well. In fact, one sign of Membership/Stakeholders Early Childhood Family Support Cop.

Additionally, as your CoP evolves you may find that roles shift as well. In fact, one sign of progress within a CoP is the development of leaders from the stakeholder groups. For example, with time, lurkers (i.e., people who view, use, and disseminate content beyond the CoP but do not contribute) may become contributors as they begin to feel more comfortable with the community, the content, and/or the technology. Even though they do not contribute content to the CoP, lurkers are very important members. They are learners who want to improve their knowledge base and even though they do not contribute, they may take information from your CoP, use it themselves, and share it with family members or friends. If stakeholders are enthused about the content and activities within



a CoP they often naturally move into contributor and leadership positions. For example, with no prompting from us some of the most active members in the Early Childhood Family Support CoP became topic leaders. In most cases this was in the form of starting and facilitating discussions about topics that were of interest for them. However, some members began to add resources such as real stories, links to web-based products, and announcements about upcoming events. In other cases, with some prompting from us, members participated in expert panels, wiki projects, and one member even started his own blog http:// cnoeblog.blogspot.com/).

### Vision Statement.

The vision statement for your community looks to the future and anticipates the ultimate outcomes. It builds upon the Background Statement and the value of your community to your organization and community members. You may never see your vision fully realized but it is critically important because it will guide day-to-day decision making in your CoP as well as communication with your stakeholders. To fully articulate your vision, you should answer the following questions:

- 1. What are our values as an organization?
- 2. In a perfect situation, how would these values be manifested among each of our stakeholder groups?

The answer to the first question is often very easy because many organizations already have a value statement in place. In our case, the Beach Center had a set of collective values that undergirded our research. These included great expectations for individuals with disabilities and their families, full citizenship for individuals with disabilities, choice in the type of life individuals with disabilities lead, recognition that individuals with disability make positive contributions in family and community relationships, and accountability by service provider systems, individuals with disabilities, and the parents (for a complete description see video and/or transcripts at http:// www.beachcenter.org/about\_ us.aspx). Given these values, our CoP team discussed how these values shaped our vision for each of our CoP stakeholder groups. These discussions lead to our vision statement for the Early Childhood Family Support CoP.

Our vision statement was greatly influenced by the concept of wisdom-based action. This is a term we developed to describe the process of moving beyond "knowing what" and even "knowing how" to "implementing how" in partnership with trusted others.

### Membership/Stakeholders Early Childhood Family Support CoP

- 1. Families of young children who have disabilities or who are at risk of having a disability.
- 2. Practitioners (educators, therapists, health care providers, paraprofessionals) who work with families of young children. This group also includes administrators of health, education, and social service agencies serving young children.
- 3. Researchers/University
  Teachers and personnel
  preparation professionals
  focusing on programs for young
  children.
- 4. Policy-makers in state and federal agencies with an interest in policies for young children and families.
- 5. Students (including lifelong learners and in-service participants).

A major source of wisdom comes from experience in solving real-world and complex dilemmas (Sternberg, 2003). It is our hope, our vision, that stakeholders in our CoP will bring this experience to the CoP so that others might learn. For us, wisdom-based action is a relational technique—a means in partnership with others toward the end of quality of life enhancements for children and families. We believe that CoPs provide an environment for people to work toward this end.

# Vision Statement Early Childhood Family Support CoP

Our vision for families and practitioners is that they will be both informed and inspired to take action in implementing wise solutions. Our vision for researchers is that they will be informed and inspired by how families and practitioners use the best available research that they produce to make wise decisions; and, furthermore, that they will listen to families' and practitioners' burning questions as a guide for their future research. Finally, our vision for policy leaders is that they will work in partnership with families, professionals, and researchers to translate the integration of best available research, family wisdom, and professional wisdom into federal and state policy.

# Mission Statement Early Childhood Family Support CoP

The mission of the Early Childhood Family Support CoP is to foster wisdom-based action in order to make sustainable enhancements in quality of life for families of young children with disabilities. To us, wisdom-based action means considering, integrating, and acting upon the best available research and experience-based knowledge in light of the in• uencing factors of one's own child, family, and community. We will foster wisdom-based action through discussions in this unique online environment in which trust, respect, positive communication, commitment, competence, and equality enable us to work in partnership in order to synthesize the best available research, family insight, and professional insight for the ultimate benefit of families and practitioners. Wisdom-based action will also include impacting policy to increase the likelihood that policy will provide systemic enhancements in family quality of life. Finally, the CoP provides opportunities for experiencing the fun of sharing perspectives on non-disability topics.

### Goals for the Early Childhood Family Support CoP

- 1. Provide a safe, respectful, and positive environment for members to exchange ideas and problemsolve about family support-related issues in early childhood.
- 2. Create a research repository containing a synthesis of available research to identify evidence-based and promising practices related to family supports.
- 3. Collect real, experiencebased stories from families and professionals related to family supports that produce outcomes for families and children.
- 4. Create smaller web-based working communities within larger CoP around specific family support issues (e.g., cultural, poverty, personnel preparation, etc).
- 5. Build a base of evidence connecting family supports to family and child outcomes.
- 6. Invite leaders within state organizations and family organizations to become members of the EC CoP website.

### Mission Statement.

The mission statement of a CoP is, naturally, closely tied to the vision statement. However, rather than looking toward the future, the mission statement explicitly states the core purpose of your community. As with the other aspects of the charter, there are a series of questions your group should answer in order to get at the mission or core purpose of your CoP. You may have already answered some of these questions as you developed your Background Statement and Vision Statement but you should revisit them as you develop your mission statement. The questions include:

- 1. Who will your community serve? Who are your stakeholders?
- 2. What are the main objectives of your community?
- 3. What are the responsibilities of the community to its members?
- 4. What are the values of your community?

At the Beach Center, we wanted our CoP to put the stakeholders in touch with valuable information but just as important was

our desire for people to use the information to take action. Specifically, we wanted them to take wisdom-based action—that is the best possible action in light of their own values, vision, and life context combined with research-based information, and experience-based information from other families. To facilitate this process, we determined that we would provide an online environment that fostered trust, respect, and equality among stakeholders. We addressed each of these ideas in the Mission Statement for the Early Childhood Family Support CoP.

### Goals Statement.

Clearly, the Vision Statement and Mission Statement outline broad and long-term goals for your community. The purpose of the Goals Statement is to break those broad and long-term goals into more specific actions your community will take in order to fulfill its mission and vision. To a large extent you will have done this as you answered the question, "What are the main goals of your community?" when you developed your Mission State-



ment.

As we considered this question, we developed a set of six goals that would enable us to realize our vision for each of our stakeholder groups as well as our own organization. In addition to these goals, our leadership team meets regularly to set weekly and monthly goals related to issues of recruitment, specific topics of discussion, special events, CoP evaluation, and the architecture of our CoP. Finally, it is important to remember that as your community evolves, so too will your goals. You may realize, as we did, that some of your goals are not attainable in practice. For example, we initially planned to engage in quarterly state-to-state community conference calls in which individual state leaders or their representatives share work-in-progress on family support issues in their state. We found that it was very difficult for people to both participate in the activities of the virtual CoP and commit to participating in regular conference calls.

### Principles Statement.

The last of the key components for a Charter is the Principles Statement. This statement explains the principles you want members to adopt as they participate in the CoP. As you can see by the principles for the Early Childhood Family Support CoP, these might also be considered "rules of the road." The purpose of our principles statement is to help create an environment in which people feel confident that they can trust the information and people they encounter in the CoP and they can therefore feel comfortable sharing information about their own experiences. Without these two environmental features, it is impossible to sustain a vibrant community. In the Early Childhood Family Support CoP, every new member receives a welcome e-mail when they join. The message outlines these six principles both to make them feel comfortable but also to help them understand the community's expectations for participation.

"...it is important to remember that as your community evolves, so too will your goals. You may realize, as we did, that some of your goals are not attainable in practice."

### Principles of the Early Childhood Family Support CoP

#### 1. Trust:

Trust is the foundation of any online community. It is built over time by interactions, reflective of the remaining five principles, which lead members to believe they can depend on each other to achieve a common purpose.

#### 2. Respect:

Community members respect opinions, values, and beliefs of other members

3. **Communication:** Community members engage in clear, honest, and respectful communication.

#### 4. Commitment:

Professionals and families share a commitment to enhance the quality of life of children with disabilities and their families.

### 5. Competence:

Community members have a commitment to identify and share effective and relevant practices in improving quality of life for individuals with disabilities and their families.

### 6. **Equality:**

All members of the community, including family members, professionals, researchers, and policy makers are equally important and make equally significant contributions to our online community.



Itimately, it is the content of a virtual CoP that determines its success. However, there are ways to develop and present the content that make finding information easier, make participation easier, and that are aesthetically pleasing. We are not web design experts, but we learned valuable lessons as we developed the Early Childhood Family Support CoP.

### The Architects

The first lesson we learned was that in the early stages a virtual CoP needs a core team of dedicated staff to get it up and running. As we have stated elsewhere, we can not imagine that the CoP could function without dedicated staff (Turnbull, et al., in press). Developing a CoP, recruiting members, and then supporting those members require intensive work. Our dedicated staff included a(n):

1. **Administrator** who facilitated discussions, conducted evaluations, worked with technical staff on design issues, and supervised student involvement.

# CHAPTER 3

The Architecture of a virtual CoP

- 2. **Facilitator** who facilitated discussions, provided support and technical assistance to members, continuously recruited new members, and emailed current members weekly with updates on what was happening in the CoP.
- 3. **Instructional design specialist** who helped to display information in an appealing and accessible manner.
- 4. **Computer programmer** who handled the programming needs associated with the software that supports our CoP (Ecco 1.6 and 2.0).
- 5. **Graduate students** who conducted interviews with family members, condensed the information into "Real Stories," and uploaded the "Real Stories" to the CoP.

The number of dedicated staff we had available to develop the Early Childhood Family Support CoP was due to the organizational structure of the Beach Center, the type of CoP we wanted (a knowledge translation community), the software we used, and the RUSH funding we had for the development. It is certainly possible to start and develop a virtual CoP with fewer people. However, we do believe that the two essential roles in the core team are the administrator and the facilitator. At least one of these team members should have technical expertise in programming since most CoP software programs require at least some programming.

### Selecting CoP Software

A virtual CoP can not exist without software. The basic function of CoP software is to provide a platform for the immediate sharing of knowledge across space and time. However, software alone will not enable you to start a virtual CoP. You will also need a web server, a computer, and a high speed internet connection. In terms of the server, you may have your own, but if not, many CoP software companies will host your CoP on their server. They charge for this

Things to consider when buying CoP Software:

#### Cost

It varies from one software package to the next.

#### Size of CoP

It may affect the software features you need. It will affect the cost of most software.

#### Activities vs. Features

It is important to find a match between projected CoP activities and software features.

### **Support Needed**

It is important to determine how much you need because some software companies provide a lot and others not so much.

### **Examples of CoP Software**

There are hundreds of software packages that can support CoPs. These are the six we know the most about. They range in price and features. They may or may not be the best.

### Agork

Includes discussion forum, customization, blogs, tagging system, private email, among others http://www.agork.com

### **CommunityZero**

Includes discussion forum, calendar, IM and Chat, wiki capabilities, file sharing, media gallery, information databases. http://www.ramius.net

#### **Ecco 2.0**

Includes discussion forum, document collaboration, video collaboration, wiki capabilities, social tagging, blogs, email participation http://www.tomoye.com

#### rSitez

includes discussion forum, chat rooms, blogs, photo sharing, private email, integrated calendar, etc. http://www.rsitez.com

#### **SiteScape**

includes discussion forum, blogs, wikis, real-time conferencing, IM, web-conferencing http://www.sitescape.com

### WebCrossing

Community includes discussion forum, mailing lists, newsgroups, chat, polls and blogs. http://www.webcrossing.com/

service based on the amount of server space you want to use. Related to the computer you will need, the minimum requirements will depend on the software you purchase. So, you should make sure that your computer meets the minimum requirements needed to run the software you choose.

There are a number of variables you will need to consider as you set out to develop a virtual CoP. One of the first variables is financial. The cost of some software can be prohibitive for smaller organizations. Often, software companies not only charge an initial fee for the software, but they also charge an annual support fee which entitles the user to technical assistance and software upgrades when they are released. For example, we paid a large, one-time fee for Ecco software from Tomoye Corporation. We then pay an annual fee which entitles us to unlimited technical assistance and any upgrades when they are released. For example, we paid a large, one-time fee for Ecco software from Tomoye Corporation. We then pay an annual fee which entitles us to unlimited technical assistance and any upgrades they release. However, there are other, less expensive options that enable organizations with small budgets to host a virtual CoP.

Another variable, which is linked to cost, is the expected size of your CoP. Some software can only accommodate a fixed number of users, or they base their pricing structure on the number of users you expect to have. For example, a software company may charge one price if you agree to have no more than 400 members and another, higher price for 401 to 1000 members.

A third variable in selecting CoP software is finding a match between the activities your community will undertake and the features software packages provide. For example, if one of the primary activities for your community members is collaborating on writing projects, you will want to find a software package that supports wikis. Or, if you want members to have the ability to create social or professional networks, you will want to find a software package that has a social tagging system.

A fourth variable for selecting CoP software is related to the amount of support you will need. One of the primary reasons we chose to purchase the Ecco software package from Tomoye was that they provide excellent customer support. Their support is not limited to technical assistance. They will also help strategize about the best ways to facilitate a community. One of the support features that most attracted us to Tomoye was that they sponsor their own CoP for their customers using their software. There are various areas within the community where customers can go to post questions to Tomoye employees as well as fellow customers who may have had the exact problem they currently face. They sponsor areas dedicated to community start-up, technology, programming, and upgrades.

In addition to the variables listed above, we were strongly influenced in our decision to purchase Tomoye's Ecco software by a Department of Defense software evaluation that reviewed 127 software applications for CoPs (Cianciolo, Heiden, Prevou & Psotka, undated). The Tomoye software was selected as the most functional and desirable software package based on a review of five domains (asynchronous tool features,

posting features, administration, synchronous features, and content management) as well as 57 performance indicators.

### Creating an Atmosphere

The important lesson we learned in terms of creating an atmosphere is that it is more closely related to the quality of the content than to the design of the site. With that said, we have learned that there are design features that make it easy for members to contribute and access content. Creating a welcoming and trusting atmosphere was important to us as we developed the Early Childhood Family

Support CoP (see Appendix A for an example of our design features wish list). In some ways we were successful, but some of our welcoming strategies only frustrated our members. For example, we worked very hard to find warm, colorful photos for the front page of our CoP that served as portals to content areas. We quickly learned that this confused our members because the photos

"The best way for non-

corporate or nongovernmental

CoPs to ensure that the content

of their CoPs will generate

community participation is to

build them around topics about

which people are passionate."

did not convey the same message to all our members. If we were going to use photos, we needed to accompany them with short words

and phrases. Barab, MaKinster, and Schekler (2004) conducted research related to this issue. They examined whether the value gained from participating in an online community compensated

for the time and effort needed. Their results indicated that designing for web-supported communities requires balancing divergent aspects (e.g., intentional design/emergent design, local/global, homogeneity/diversity) from inside the group, rather than imposing an external system on the group. By necessity, we initially imposed an external system on our CoP. However, because we were new to virtual CoPs, we were eager to receive feedback from our members, and they were keen to provide it. Their feedback taught us the bottom line rule for virtual CoPs: *contributing and accessing content should be easy.* Otherwise, members get frustrated and may not return.

As we mentioned above, content trumps design. The best way for non-corporate or nongovernmental CoPs to ensure that the content of their CoPs will generate community participation is to build them around topics about which people are passionate. We highlight the Early Childhood

### CoP Design Tips

### Three Click Rule

No more than three clicks to access content.

#### **One Click Rule**

No more than one click to contribute content (i.e., discussion content).

#### **Search Tool**

Prominent and powerful search tool that helps people access content.

### No Squinting

Font should be large with clean lines (Arial works well).

### **Easy Navigation**

Short words and phrases for navigation. If you use photos they should clearly depict content.

### **Help Tool**

Provide an easy-to-use help tool, preferably in multiple formats (text, audio, video).

Family Support CoP in this manual because it has been mostly successful. However, we tried to launch another CoP that was not successful. We learned that people just were not passionate about discussing the reauthorization of the Developmental Disabilities Act.

Next, remember that stories work! In his book, "The Springboard," Stephen Denning (2001)

described springboard stories which enable a leap in understanding by the audience. They provide a context and serve as a catalyst for the reader to

"When a springboard story does its job, the listeners' minds race ahead, to imagine the further implications of elaborating the same idea in other contexts, more intimately known to the listeners. In this way, through extrapolation from the narrative, the re-creation of the change idea can be successfully brought to birth, with the concept of it planted in listeners' minds, not as a vague, abstract, inert thing, but an idea that is pulsing, kicking, breathing, exciting—and alive.

Denning, 2001, p. xx"

tions that enable collaboration and communication, and, as Tim O'Reilly explained, they are platforms that "harness collective intelligence" (O'Reilly, 2005).

Virtual CoPs provide an example of Web 2.0 technologies that harnesses collective intelligence. In fact, the most vibrant CoPs incorporate a variety of Web 2.0 technologies. The Early

Childhood Family Support CoP, for example, has made use of blogs, wikis, and social bookmarking. In the near future we plan to begin pro-

expand the idea contained within the story and apply it to other areas. Denning noted that stories do not need to transfer large amounts of information. They simply need to enable readers to grasp an idea quickly and in a nonthreatening way. We noticed very early in the life of the Early Childhood Family Support CoP that the discussions which really took off were those that began with a story. One of the lessons we at the Beach Center had to learn was how to take our research-based ideas and our academic language and translate them into springboard stories. We were fortunate to have a facilitator who was very good at doing this.

### Web 2.0 Technologies

The term, Web 2.0, was coined in 2004 by O'Reilly media group to distinguish the new web-based technologies that were changing the way people sought and received information from the traditional web-based technologies (Web 1.0). Web 2.0 technologies include social networks, wikis, file sharing, blogs, and vlogs among others. They are platforms that encourage open networks and lend themselves to applicaducing podcasts.

We started a blog based on the content of the CoP because we wanted to make the information available to people who were not a members of the CoP. This provided another way for people to comment on information related to early childhood family supports. It also allowed CoP content to be reproduced in email, news readers, and/or other websites without compromising the identities of the CoP members. To view our blog please visit the following URL: http://earlychildhoodcop.blogspot.com/. After reading our blog, one of the members of the CoP decided he too would like to have a blog, which we helped him set up and link to the CoP. His blog re ects his "best thoughts, favorite resources, and news and commentary about children with disabilities and their families" (http://cnoeblog.blogspot.com/).

It is relatively simple and often free to set up a blog. We initially developed ours using Blogger.com (https://www.blogger.com/start), and we know about Wordpress.com (http://wordpress.com/) which is also free. Both sites provide easy-to-follow instructions for setting up your blog. Many CoP software packages now include blogging capabilities.

Wikis are also an important part of the Early Childhood Family Support CoP. They are used to make explicit the tacit knowledge that people share in the CoP discussion threads. For example, the CoP had a few different discussion threads related to comments parents hear from school administrators and teachers during IEP (individualized education program) meetings. One of the members decided that it would be useful to list all of these comments and then develop helpful replies parents could use. We did this on a wiki, where we posted the comments parents hear. Then members who were interested went to the wiki page and added more comments or suggested possible responses. Some of our members who were knowledgeable about policy added information from IDEA (Individuals with Disability Education Act). Once people were no longer making comments

on the wiki, we took the information, formatted it, and created 19 cards which we call The Four R's: The Remark, Recall the Law, and The Rationale used to create the Response (see Appendix B for an example). We then posted these cards on the CoP and on the Beach Center website (http://www.beachcenter. org/Wisdom/ParentRights/Four\_Rs.pdf), where people can download them and use them. We have received great feedback on this resource. For example, one CoP member who is both a parent of a child with disabilities and a case manager for other parents came to the CoP and made the following comment: "I plan to put a copy of the 'cards' in the 'organizing notebooks' I give to families when working with them...and will use them in IEP trainings!" This project exemplifies the harnessing of collective intelligence which is possible using Web 2.0 technologies.

### What are Web 2.0 Technologies?

To develop a better understanding of specific Web 2.0 technologies, we recommend you view episodes of The Common Craft Show on YouTube. These are videos developed by Lee and Sachi LeFever. Their goal is to fight complexity with simple tools and plain language. Below we list only some of their videos. They have many more.

**Blogs in Plain English:** A video for people who wonder why blogs are such a big deal. http://www.youtube.com/watch?v=NN2I1pWXjXI

**Podcasting in Plain English:** A three minute explanation of podcasting. http://www.youtube.com/watch?v=y-MSL42NV3c

**RSS Feeds in Plain English:** Explains the new and efficient way to keep up with everything that is happening on the internet. http://www.youtube.com/watch?v=0klgLsSxGsU

**Social Bookmarking in Plain English:** Explains the power of social bookmarking and how it makes web pages easy to remember, organize, and share. http://www.youtube.com/watch?v=x66lV7GOcNU

**Social Networking in Plain English:** For people who wonder why social networking sites are so popular. We think one reason is because they help to solve a real world problem. http://www.youtube.com/watch?v=6a\_KF7TYKVc&feature=related

**Wikis in Plain English:** Explains how to use a wiki web site to collaborate with friends and colleagues. http://www.youtube.com/watch?v=-dnL00TdmLY



CHAPTER 4

Facilitation-A Social Art

poetry, or film. "Social artists give us communities" (p. xi).

Dubé, Bourhis and Jacob (2005) studied 14 CoPs during their initial implementation. They looked at 14 characteristics including demographics, organizational context, membership, and technological environment. Characteristics that seemed to contribute to the success include: facilitating a managerial environment, including topics that were highly relevant to the daily concerns of its members, and ensuring that a community is integrated into the structure and supported by an organization.

We broke the facilitator tasks into three primary activities: (a) moderating discussions; (b) recruiting new members; and (c) supporting special activities within the CoP. In terms of moderating discussion, we discovered strategies that helped discussions thrive.

### **Moderating Discussions**

As we mentioned in Chapter 3, "stories work." Therefore, we started most of our topical discussions with a short vignette. Generally these were true stories; but if they were not, we acknowledged this by asking people to "imagine a scenario in which..." We were fortunate in that our facilitator was the mother of two sons who have autism. As a result, she has a story for nearly every topic discussed in the CoP. Once we initiated a discussion with a story, we always tried to identify two or more members who had an

#### **Facilitation Tasks**

Based on the literature and our own experience the primary tasks for a facilitator are:

- 1. Translate research- and policy-based information into easy-to-understand language.
- 2. Draw community members into a conversation—increase participation. Frame questions in a way that demonstrates your willingness to listen, probe, ask, and clarify.
- 3. Recruit new members to the community.
- 4. Keep track of expertise.
- 5. Ensure that dissenting points of view are heard and understood.
- 6. Keep discussions on topic.
- 7. Pay attention to details that show you value individuals
- 8. Be aware of participation levels and check in with members to ensure needs are being met.
- 9. Model willingness to learn and unlearn.
- 10. Highlight the contributions of all members.

Cashman, Linehan, & Rosser, 2007; Tarmizi, de Vreed, & Zigurs, 2006

acilitation is the most important factor in determining CoP success. We know through experience that a CoP can survive design flaws, but it can not survive without positive facilitation. "To enable the establishment and sustained functioning of a CoP it is important for the community to be effectively facilitated" (Tarmizi, de Vreede, & Zigurs, 2006, p. 8). A good facilitator is in frequent contact with members of the CoP, inviting them to comment on a particular discussion, helping them find useful information, addressing questions or concerns, and thanking them for their participation. Our experience with the Early Childhood Family Support CoP teaches that the two most important, yet most difficult, tasks for a facilitator are making research-based or technical information compelling to non-researchers and drawing members into a discussion. Both of these tasks require special skills. Wenger (2007) refers to facilitators as "social artists" (p. xi) who create "conditions for people to come together in productive communities. (p. xi)" Other artists produce music, paintings,

# Weekly Tasks: Early Childhood Family Support Facilitator

#### **Moderate Discussion**

- Start weekly discussions with stories
- Identify potential contributors and invite them to participate
- Monitor and reply to memberinitiated discussions
- Respond to member inquiries
- Acknowledge member participation
- Identify and post resources

#### Recruitment

- Identify up to 50 potential members and add them to database
- Words of the week (i.e., identify topic, create vignette, start discussion, create flier, e-mail it to people on the databases)
- Monitor and approve requested memberships

### **Special Activities**

- Identify and contact participants for panel discussions and town hall meetings
- Review and edit CoP products
- Contribute creative thinking to CoP projects (i.e., CoP design, wikis, blogs)

interest in this topic. We would contact them personally and invite them to contribute to the discussion. Often their participation would attract others and soon the discussion had momentum. The facilitator's job then turned to monitoring the discussion and replying as needed. We also always tried to acknowledge a member's contribution either publicly or privately. Despite the virtual nature or the CoP, we found that members appreciated receiving a thank-you card in mail.

### Recruitment

Recruitment, the second task required of the facilitator, is the lifeblood of any CoP. Without new members, the content of the CoP can become stale, leading members to lose interest. Our goal during the first year was to identify 50 potential members each week and send them an invitation to join the CoP. We were not always able to achieve this level of recruitment, but we conducted recruitment activities every week. For us, this meant contacting the directors of local, state, and national organizations throughout the United States who were interested in early childhood family support issues and asking them to distribute our invitation letter (Appendix C) to their memberships. These included parent-directed organizations, early childhood programs, and Head Start programs, just to name a few. We presented a display at professional conferences that provided information about the CoP and how to become a member. Additionally, we made presentations at professional conferences about the CoP and invited all the people who attended to join our CoP. Lastly, each week we sent out "Words of the Week", which highlighted a current discussion or topic in the CoP (see Appendix D). In short, we used every possible situation as an opportunity to invite people to the CoP.

### Support Special Activities.

The last task we asked of our facilitator was to serve as a support person on CoP projects. For example, each month we tried to have either a panel discussion of experts or a "Town Hall Meeting" that featured one person who moderated a discussion on their area of expertise. The facilitator was responsible for setting up these events and supporting our special guests as the guests moderated discussions. The facilitator chose the person of the month based on a particular experience or area of expertise. For example, November 2007 featured a mother who had an eight-year old son with significant developmental disabilities. She explained in great detail the steps she took in order to have an enjoyable Disney Land vacation with her children. She described the flight arrangements starting with going through security to checking her sons wheel chair to finding their seats. She also described dilemmas such as feeding her son through his G-tube in public and the accessibility of bathrooms in airports and amusement parks. Other featured guests included a prominent researcher, an early intervention service provider,

and an author and filmmaker.

Another special project coordinated by our facilitator was a regular "Panel Discussion" about topics related to early childhood issues. Our goal was to feature panel members who represented one or more of our stakeholder groups (families, service providers, researchers/university teachers, students, and policy leaders) although this was not always possible. The facilitator would present a question to the panel and then open

the discussion to the CoP membership. The panel discussions covered topics such as care coordination for children with special needs, family supports that improve family quality of life, how to resolve conflict when

parents and schools disagree, and oral health care for children with special needs.

Another special project was related to our various wikis. When we first initiated our wiki projects, our CoP software (Ecco 1.6) did not support wikis so we had to use an outside service to host our wiki activities. We chose to use Google Docs (http://www.google.com/google-d-s/intl/ en/tour1.html) because it was very similar to word processing software many of our members used. The facilitator helped our members access the wikis in Google Docs and trained them how to participate. Once the wiki project came to an end, she took the information from the wikis and transformed it into easy-to-use formats such as the "4 R's" project, which we discussed in Chapter 3 (see Appendix B).

As these previous paragraphs indicate, a critical feature of CoP health is active leadership (McDermott, 2004). McDermott noted that leaders of successful face-to-face communities spend 25 % of their work week providing active, engaging leadership. The tasks associated with that time commitment include logistics (10%), facilitating meetings (20%), networking with stakeholders of the community (30%) and networking among community members (40%). One might assume that daily leadership of web-

supported communities requires more time than face-to-face communities. Our experience supports this assumption. In fact, the Beach Center hired a CoP facilitator who spent between 30 and 40 hours a week in the Early Childhood Family Support CoP working on facilitation activities (moderating discussion, recruiting new members, and supporting CoP activities). In addition, one of the Beach Center's research associates spent 20 hours a week serving as the CoP administrator. At least half of his

time (10 hours per week) was spent in facilitation activities. So, during the first 10 months of the Early Childhood Family Support CoP, we spent between 40 and 50 hours a week facilitating the community.

Currently, after 10 months, we are transitioning many

of the facilitation duties to the CoP membership outside the Beach Center. We are just beginning to ask members to take one week during which, they will serve as discussion leaders. They will introduce a topic, invite others (both members and potential members) to participate in the discussions, monitor and reply to discussions, and identify and post resources. We believe that this is important in the evolution of a CoP. At some point, the members need to take responsibility for the content. However, it is important to proceed with caution as one survey of 44 CoP facilitators found that "promoting ownership and encouraging group responsibility" was one of the most difficult tasks in CoP facilitation (Tarmizi, de Vreede, & Zigurs, 2006, p. 5). Certainly, the sponsoring organization should continue to provide leadership and support;

but in order to truly harness the collective intelligence of the community, the CoP membership needs to take ownership of the content.



"We believe that this is

important in the evolution

of a CoP. At some point,

the members need to take

responsibility for the content."



here are two broad categories of evaluation that help in the development of a CoP: (a) formative evaluation—evaluation of the implementation plan; and (b) summative evaluation—measuring the efficacy and impact of your CoP. Both types of evaluation provide valuable information.

### Formative Evaluation

The goal of the formative evaluation process is to ensure that your virtual CoP is easy to use. This process is fairly straight forward and begins with both your long- and short-term goals. Starting with the shortterm goals, you should develop a detailed task list that breaks goals down on a weekly, biweekly, and monthly basis. During the development stages of the Early Childhood Family Support virtual CoP, we met at least once a week to evaluate our progress and discuss any challenges we encountered. Based on these weekly meetings, we then took items off our task list or we adjusted the task list to reflect the current status. We continued this

# CHAPTER 5

**Evaluation** 

process until we felt ready to evaluate our CoP.

The next step in the formative evaluation was to invite a group of trusted colleagues to visit the CoP site, navigate the various sections, start a discussion, and respond to a discussion. We then invited their comments related to (a) the difficulties they had in completing these tasks and (b) the navigational features they found useful. We adjusted the site further based on these comments. Once this was done, we launched the Early Childhood Family Support CoP. However, our formative evaluation did not end with the launching of the CoP. In fact, it has never ended. We continually solicit feedback from our members and have continued to adjust the site based on that feedback. It is natural to solicit feedback only from members who visit the CoP and regularly contribute to discussions. However, we strongly encourage you to solicit information also from those who only rarely visit the site. They may be experiencing a challenge that limits their participation and that, if resolved, would improve the usability of your CoP for all members.

### Five-Step Formative Evaluation

- 1. Detailed Task List
  Develop a list of tasks that
  need to be done to launch your
  virtual CoP.
- **2. Weekly Evaluation**Meet weekly to evaluate progress on task list and address challenges immediately.
- 3. Beta Test
  Invite colleagues to test
  your virtual CoP before you

officially launch the site.

- **4. Pre-Launch Changes** Make final changes based on beta test.
- **5. Continued Evaluation**Continue to solicit feedback from members after the launch of your CoP.

### Summative Evaluation

Although web-supported CoPs are fairly new, there has been some research conducted related to conversation characteristics such as social network analysis of scholarly networks (Koku & Wellman 2004) and computer-mediated discourse (Herring, 2004). Herring (2004) focused on the methodological approaches that could be used to address the issue of whether participation in on-

line environments constitutes "community" as differentiated from a group of people interacting on-line. She offers six criteria and associated methods to assess online community behaviors objectively: participation, shared history, solidarity and support, conflict and conflict resolution, group identity and self-awareness, and roles and governance.

Our first step in assessing these online community behaviors in the Early Childhood Family Support CoP was to develop a 20-question survey that asked members to rate various aspects of the CoP. We created a structured survey using SNAP Surveys, survey development software used for web-based surveys (Snap Surveys, 2007). We asked how often they visited and contributed to the CoP. We then asked a series of questions about how easy it was for them to navigate the CoP. Next we asked them to rate the usefulness of specific aspects of the CoP. Finally, we asked them to rate the overall usefulness of the CoP. To view

the online version of the survey you may visit the following URL: http://web.ku.edu/~beachsvy/ecfs/ ECFSeval/ecfs.htm. The individual survey questions are included in Appendix D.

In addition to our survey, we also invited members to complete the ten-item System Usability Scale (SUS) (Brooke, 1996). The SUS is scored using five-point likert scale ranging from "Strongly disagree" to "Strongly Agree." As you can see in the box to the right, the items in the SUS cover a variety of aspects of system usability such as the need for support, training, and complexity. The only change we made to the scale was that we changed "system" to "CoP." The SUS is generally used after CoP members have had an opportunity to spend time on the CoP. The developers of the SUS recommend that respondents should record their immediate response rather than thinking about the items for a long time. We chose to use the SUS because the items cover a variety of aspects of system usability. Furthermore, items were worded so that strong agreement on half of them should indicate strong

### **System Usability Scale (SUS)**

- 1. I think that I would like to use this system frequently.
- 2. I found the system unnecessarily complex.
- 3. I thought the system was easy to use.
- 4. I think that I would need the support of a technical person to be able to use this system.
- 5. I found the various functions in this system were well integrated.
- 6. I thought there was too much inconsistency in this system.
- 7. I would imagine that most people would learn to use this system very quickly.
- 8. I found the system very cumbersome to use.
- 9. I felt very confident using the system.
- 10. I needed to learn a lot of things before I could get going with this system.

### **Early Childhood Family Support CoP Semistructured Interview**

- 1. How did you find out about the CoP?
- 2. How many visits did you make before deciding to become a member?
  What led you to decide to join? To participate in the discussions?
- 3. Now that you are a member, how often do you visit the CoP?
- 4. What are your general impressions of the CoP? Overall, what do you think of it?
- 5. What is your understanding of the purpose/mission of the CoP?
- 6. What do you like most about the CoP?
- 7. Does a particular topic or discussion come to mind that you found meaningful?
- 8. Are there topics that you would like to see discussed in the future?
- 9. What one or two things do you think we should change or improve on the CoP?
- 10. What features would you like to see us add to the CoP that are not currently available (i.e. instant messaging).

disagreement on the other half. The developers of the SUS did this to prevent response biases caused by not having to think about each item.

Another important summative evaluation technique is web-based metrics reports. Metrics reports provide information about the ways visitors (members and non-members) access, use, and benefit from CoP content. Most CoP software produce metrics reports that provide statistics on the number of new members, total number of page views, average number of page views per visit, number of visits by members and nonmembers, most viewed items, and most active members, among others. The software that supports the Early Childhood Family Support CoP (Ecco 1.6 and 2.0) provides each of these statistics for the past seven days, 30 days, 90 days, and 12 months. Thus, you can quickly develop a usage report for your CoP over time.

The final summative evaluation technique we used for our virtual CoP was semistructured interviews with community members. These interviews were conducted either face-to-face or over the telephone. We tried to record these interviews whenever possible; but in those rare cases when we were not able to record the interview, we took extensive notes. Semistructured interviews combine flexibility with directionality to produce focused, qualitative, textual data (Schensul, Schensul, & LeCompte, 1999). The semistructured interviews allow us to gather very specific data about the efficacy and impact of the CoP. It also provides specific information about those features of the CoP that are problematic, those that are useful, and those that the members would like to see added. In this way, the semistructured interview provides us with both evaluative and summative data.





### OPs are "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger, McDermott, & Snyder, 2002, p. 4). CoPs enable people doing related work or facing similar challenges to share their knowledge and solutions and thereby advance the greatest good for the greatest number (Wheatley & Frieze, 2007). While CoPs can exist offline, we learned that a virtual CoP serves as a knowledge epicenter for stakeholders from all over the country and potentially around the world.

As we stated in the Prologue, developing and participating in the Early Childhood Family Support CoP has revolutionized the way we at the Beach Center on Disability approach our research, disseminate information, and expand our knowledge base. We are moving from a traditional view of researchers being in the center of the early childhood knowledge universe to ensuring that families and children are in the center and that resources encircle them.

# CHAPTER 6

Lessons Learned

Through this process we learned many valuable lessons about CoPs, which we have tried to share here. To summarize, the most important steps in developing a virtual CoP are:

- 1. Developing a charter for your CoP (Chapter 2)
- 2. Creating the architecture of your CoP (Chapter 3)
- 3. Facilitating activity in your CoP (Chapter 4)
- 4. Evaluating your CoP (Chapter 5).

Perhaps the most important lesson we have learned is that successful CoPs evolve beyond the original vision. Letting it evolve with the needs of the stakeholders creates a dynamic community where knowledge and wisdom can truly grow. For example, as we stated in Chapter 1, the focus of our CoP is early childhood family support. However, as the CoP evolved stakeholders began to move beyond the narrow topic of early childhood family support to the family support needs for all age groups. As a result, there is now a discussion among CoP members to change the name to the Family Support CoP. In short, we learned that our vision was too narrow. Many more stakeholders than we initially envisioned want to share, gain, and create knowledge in dialogue together. This is truly an exciting lesson to learn.

"Perhaps the most important lesson we have learned is that successful CoPs evolve beyond the original vision."

#### References Cited

- Barab, S.A., Kling, R., & Gray, J.H. (2004). Introduction: Designing for virtual communities in the service of learning. In S.A. Barab, R. Kling, & J.H. Gray (Eds.), Designing for virtual communities in the service of learning (pp. 3-15). Cambridge: Cambridge University Press.
- Barab, S.A., MaKinster, J.G., & Schekler, R. (2004). Designing system dualities: Characterizing an online professional development community. In S.A. Barab, R. Kling, & J.H. Gray (Eds.), Designing for virtual communities in the service of learning (pp. 53-90). Cambridge: Cambridge University Press.
- Brooke, J. (1996). SUS: A "quick and dirty" usability scale. In P.W. Jordan, B. Thomas, B.A. Weerdmeester, & A.L. McCleland (Eds.), Usability evaluation in industry. London: Taylor and Francis. Cambridge, D., Kaplan, S., & Suter, V. (2005). Community of practice design: A step-by-step guide for designing & cultivating communities of practice in higher education. Retrieved April 8, 2008, from http://www.educause.edu/ir/library/pdf/NLI0531.pdf
- Casalini, M.C., Janowski, T., Estevez, E. (2006). A process model for collaborative problem solving in vitual communities of practice. In L. Cararinha-Matos, H. Afsarmanesh, & M. Ollus (Eds.), IFIP International Federation for Information Processing, Network-Centric Collaboration and Supporting Fireworks. (Volume 224), pp. 343-350. Boston: Springer.
- Cashman, J., Linehan, P., & Rosser, M. (2007). Communities of practice: A new approach to solving complex educational problems. Alexandria, VA: National Association of State Directors of Special Education.
- Cianciolo, A.T., Heiden, C.G., Prevou, M.I., & Psotka, J. (undated). Assessing army structure professional forums.
- Denning, S. (2001). The springboard: How storytelling ignites action in knowledge-era organizations. Boston: Butterworth Heinemann.
- De Vries, S., & Kommers, P. (2004). Online knowledge communities: Future trends and research issues. International Journal of Web Based Communities, 1, 115-123.
- Dubé, L., Bourhis, A., & Jacob, R. (2005). The impact of structuring characteristics on the launching of virtual communities of practice. Journal of Organizational Change Management, 18, 145-166.
- Gherardi, S., & Nicolini, D. (2000). The organizational learning of safety in communities of practice. Journal of Interactive Learning Research, 9, 7-18.
- Herring, S.C. (2004). Computer-mediated discourse analysis: An approach to researching online behavior. In S.A. Barab, R. Kling, & J.H. Gray (Eds.), Designing for virtual communities in the service of learning (pp. 338-376). Cambridge: Cambridge University Press.
- Johnson, C.M. (2001). A survey of current research on online communities of practice. Internet and Higher Education, 4, 45-60.
- Koeglreiter, G., Smith, R., & Torlina, L. (2006). The role of informal groups in organizational knowledge work: Understanding an emerging community of practice. International Journal of Knowledge Management, 2, 6-23.
- Koku, E. F., & Wellman, B. (2004). Scholarly networks as learning communities: The case of TechNet. In S. A. Barab, R. Kling, & J. H. Gray (Eds.), Designing for virtual communities in the service of learning (pp. 299-337). Cambridge: Cambridge University Press.
- Lave, J. & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. New York, NY: Cambridge University Press.

- McDermott, R. (2004). How to avoid a mid-life crisis in your CoPs: Undercovering six keys to sustaining communities. KM Review, 7, 10-13.
- National Center for the Dissemination of Disability Research. (2005). Communities of practice: A strategy for sharing and building knowledge (Focus, Technical Brief, 11). Retrieved April 10, 2008, from http://www.ncddr.org/kt/products/focus/focus/11/Focus11.pdf
- O'Reilly, T. (2005, September). What is web 2.0: Design patterns and business models for the next generation of software. Retrieved May 7, 2008, from http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html
- Preece, J., Abras, C., & Maloney-Krichmar, D. (2004). Designing and evaluating online communities: Research speaks to emerging practice. International Journal of Web Based Communities, 1, 2-18.
- Reil, M., & Polin, L. (2004). Online learning communities: Common grand and critical differences in designing technical environments. In S. A. Barab, R. Kling, & J. H. Gray (Eds.), Designing for virtual communities in the service of learning (pp. 1650). Cambridge: Cambridge University Press.
- Schensul, S.L., Schensul, J.J., & LeCompte, M.D. (1999). Essential ethnographic methods: Observations, interviews, and questionnaires. Walnut Creek, CA: AltaMira Press.
- Snap Surveys (2007). Survey Software: The essential software for questionnaire design and analysis (Version 9.0) [Computer software and manual]. Retrieved March 26, 2008, from http://www.snapsurveys.com/.
- Sternberg, R.J. (2003). Wisdom, intelligence, and creativity synthesized. New York: Cambridge University Press.
- Tarmizi, H., de Vreede, G-J., Zigurs, I. (2006). Identifying challenges for facilitation in communities of practice. Paper pre sented at the 39th Hawaii International Conference on System Sciences.
- Turnbull, A.P., Summers, J.A., Turnbull, R., Brotherson, M.J., Winton, P., Roberts, R., Snyder, P., McWilliam, R., Chandler, L., Schrandt, S., Stowe, M., Bruder, M.B., DiVenere, N., Epley, P., Hornback, M., Huff, B., Miksch, P.,
- Mitchell, L., Sharp, L., and Stroup-Rentier, V. (2007). Family supports and services in early intervention: A bold vision. Journal of Early Intervention, 28, 187-206.
- Turnbull, A.P., Summers, J.A., Gotto, G.S., Beauchamp, D., Klein, S., Kyzar, K., Stowe, M., Turnbull, R., & Zuna, N. (inpress). Fostering wisdom-based action through web 2.0 communities of practice: Case study of early childhood family support community of practice. Infants & Young Children.
- Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. New York, NY: Cambridge University Press.
- Wenger, E., McDermott, R., & Snyder, W.M. (2002). Cultivating communities of practice. Boston, MA: Harvard Business School Press.
- Wenger, E. (2007). Foreword. In J. Cashman, P. Linehan, & M. Rosser. Communities of practice: A new approach to solving complex educational problems. Pp. ix-xii. Alexandria, VA: National Association of State Directors of Special Education.
- Wesley, P.W., & Buysse, V. (2006). Building the evidence base through communities of practice. In V. Buysse and P.W. Wesley (eds.). Evidence-based practice in the early childhood field. Pp. 161-194. Washington, D.C.: Zero to Three.
- Wheatley, M. & Frieze, D. (2007). Beyond networking: How large-scale change really happens. School Administrator, 64, 35-38.

### Appendix A

### Considerations for Web-Supported Community of Practice Design/Feature Elements

Element	Description of Element	Goal of Element Pr		
Color Scheme	The color scheme of the CoP will be similar to the Beach Center website.	There will be continuity between the Beach Center website and the CoP.		
Font	The font in the CoP will be the same as the font on the Beach Center website	There will be continuity between the Beach Center website and the CoP.		
Photos	Photos that depict the content of the topic will, in part, drive the "look and feel" of the Co. These photos will serve as an iconic depiction of the concepts for the community member similar to the Beach Center website.  • The "look and feel" of the Co. include a visual representation of the cepts that are included. • There will be continuity between the Beach Center website and the Co.			
Principles	Early childhood principles and general CoP principles will be created to guide the navigation of the CoP.  Early Childhood Principles (Jean Ann, George, Kathleen); see attached document  General Principles (Martha)	The Early Childhood principles and the General Principles will guide the CoP.		
Group Projects	There will be a place on the CoP to support group projects, both with smaller and larger groups. One way to facilitate group projects through the CoP is to incorporate wikis. This allows group members to collaboratively work on documents.  The CoP will support group princrease participation and keep nity "alive."			
Posting Documents	The CoP will support posting documents on the site so community members do not have to click on a link that opens up the document in Word.	The users will be able to view documents without downloading them.		
Spell Check	The CoP will have a spell check feature on contributions (i.e. topics, discussions, knowledge).	Members will be able to check the spelling on their posts.		
Participant Handbook	A handbook inclusive of navigational and troubleshooting information will be accessible to participants on the CoP.	Members will have an immediate reference when they have questions.		
Town Hall Meetings	These meetings will be scheduled events with discussions from identified "experts" on a topic. The meetings will be followed by discussions and questions.	Members will be able to learn more about topics that are of interest to the community from "experts" and each other.		
Archiving	There will be a "storage" place on the CoP for information and/or discussions that are continually relevant or timely. This element will be especially important for "capturing" highlights from the "Town Hall Meetings."	Town Hall Meetings and other important/key discussions or knowledge can be captured and stored for members to access at any time.		

Including Multimedia	Video, audio, and photos will be incorporated on the CoP in a way that is captivating to the members. The "Vanderbilt" website (http://www.mc.vanderbilt.edu/) includes these three elements in a manner that we strive to achieve.	Photos, video, and audio will be presented in an interesting way.	
Instant Messaging	Including an instant messaging feature would enable community members to access other members or facilitators who are on-line.		
"Novice" and "Expert version	<ul> <li>Participation options are restricted to posting discussion items for new members.</li> <li>Then after a set period of time (1 month, six weeks), once they are comfortable, we invite members to become "advanced" members and we enable them to post knowledge items.</li> </ul>	• The CoP will be user-friendly and encourage participation for members whose experience with interacting in this format is limited.	
Tutorial	<ul> <li>There will be a tutorial available for members.</li> <li>The tutorial will explain (both visually and in writing) how to navigate through the different options in the CoP.</li> </ul>	Members will have a visual and written tutorial to help them navigate the CoP.	

### Chuck's 4 R's: Remark, Recall, Reason, Response

Help for Parents and Education Advocates to Respond to Remarks they hear from Schools

The following pages contain tips designed to help parents and advocates to prepare for their child's IEP (Individual Education Plan) meetings.

These tips were developed from discussion contents of the Early Childhood Family Support Community of Practice (ECFSCoP) and a wiki created by CoP member, Chuck Noe. The ECFSCoP is facilitated by the Beach Center on Disability at Kansas University, Lawrence Kansas. Chuck Noe is an Education Specialist, at the Parent Resource Network, Beaumont Texas.

Each page comprises four components as outlined below

### The **Remark:**



The Remark is an example of what parents might hear from educators during school meetings

### **Recall** the Law:



The Recall the Law section is a quote from or explanation of IDEA (Individuals with Disabilities Education Act) that addresses the Remark.

### The **Reason**:



The Reason explains the rationale used to create the Response.

### The **Response**:



The Response is a possible reply to the Remark that the parent or education advocate can make. Please consider it one example. It may be just the opening statement on which to build.

The 4 R's are a product of Chuck Noe, Partners Resource Network, Beaumont TX and the Beach Center on Disability at Kansas University, Lawrence KS Early Childhood Family Support Community of Practice (CoP)

### Chuck's 4 R's: Remark, Recall, Reason, Response

Help for Parents and Education Advocates to Respond to Remarks they hear from Schools

### The **Remark:**



We don't have an aide (or service or equipment item, etc.) for your child, although we agree that it's a good idea. Our budget is really tight and we just can't afford it."

### **Recall** the Law:



The school district must provide a Free Appropriate Public Education (FAPE) for children regardless of cost or funding issues. The school is required to identify building resources to meet the students' needs. "Special education means specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability." 300.39(a)

### The **Reason**:



Thinking of supports as only paraprofessionals or aides limits the possibility of other school staff or peers providing help. A willing custodian, librarian, or older student could provide effective support. You can make suggestions for creative solutions, but remember that this is the school's responsibility. You do not have to raise funds for a needed service.

### The **Response**:



- "I can appreciate the dilemma that you face in these times when money is tight, but my child needs support. Is there someone who could serve as an aide for at least a part of the day"?
- "Could we consider someone else in the building, a custodian, librarian, another student, or a volunteer to work with my child? We can meet in X number of weeks to evaluate the benefits of this option and make further decisions then."
- "It's really a matter of prioritizing the money that the district does have, and for our conversation today, the issue isn't about money. It's about my child's need for an aide. Since we agree that my child needs an aide, funds need to be found to pay for one. Could that be considered when the school plans its budget for next year?"

The 4 R's are a product of Chuck Noe, Partners Resource Network, Beaumont TX and the Beach Center on Disability at Kansas University, Lawrence KS Early Childhood Family Support Community of Practice (CoP)

### You Are invited to our Community of Practice

**Early Childhood Family Support** 

Family Wisdom
Professional Wisdom
Best Available Research
Legislative Policy Making



Please join our Community of Practice, an on-line gathering place to participate in discussions, share insights, and experiences.

Add your voice to bring about wisdom-based actions that are needed to enhance the lives of children with disabilities and their families.

For more information or to join, please visit our website www.beachcenter.org

Click on Community of Practice and see what's going on.

We look forward to hearing from you!

### Appendix D

# Early Childhood Family Support Words of the Week Welcome to the New Year, 2008! and Welcome to our Community of Practice (CoP)

With over a million visits to the CoP in the past few weeks and almost 300 members, we are quickly becoming an important instrument to integrate our insight and knowledge from both research and experience into wisdom-based actions that lead to families' true quality of life. Thank you for being a part of this valuable Community.

The CoP's look has been updated with new photos on the front page.

Would you like to see someone you know on the front page? Please send us your favorite photos to be included in our next update.

Many research articles have been added to the Research Repository which is found under the Library tab.

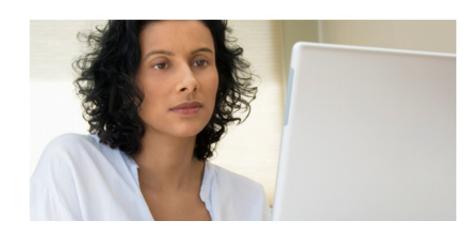
Please take some time to read these interesting and informative articles that resulted from our various studies related to families and young children.

More Real Stories are available in the Gathering Wisdom section. We hope these accounts will inspire you and lead us in meaningful discussions.

We are excited to announce that our Featured Member leading the next Town Hall meeting will be Janice Fialka. Her presentation, "The Dance of Partnership, Why Do My Feet Hurt?" is a popular message at conferences across the country. You won't want to miss what she has to say about inclusion, building relationships, and creating hope for the future.

Please set aside Monday, February 4th, 10:30am (Eastern Time) as Janice joins us in the CoP to share her family's story and address many of the issues facing families who have children with disabilities.

To join this CoP, go to www.beachcenter.org Click on Communities of Practice Once inside, select Early Childhood Family Support. Then, scroll down the left side to find and click on Become a Member. Complete your profile by creating a user name and password, your email address, and telling us a little about yourself. Click Submit. When you receive your email membership confirmation, you can sign in and start participating.



# The Words of the Week are:

# How Do You Know & Act on Your Rights?

As parents of young children with special needs, how do we know which services are appropriate for our child? Who decides how those services will be delivered? Can services be changed without our approval?

As practitioners working with young families, how do we balance our responsibility to them and to our employers? How do we support families with whom we don't agree about services for their child?

What rights do we have to help us answer these questions and where can we gain information about those rights? This week's opening discussion on the CoP targets these issues.

Please join us in the Early Childhood Family Support **Community of Practice, CoP**. This is an on-line space where you can read the stories of families who have young children with disabilities and the insights they've gathered. Come in to share your own experiences or look for resources and information. Become acquainted with people all over the country who share your interests. Please join us at

### www.beachcenter.org

#### Click on Communities of Practice

Once inside the Early Childhood Family Support CoP, you can read all of the discussions but cannot join in them until you become a member. Click on **Become a Member.** Complete your **profile** and click **Submit.** 

As soon as you receive your email membership confirmation, you can sign in and discover all of the features of the CoP.

# The Words of the Week are: Attachment Parenting







Our discussions begin this week with The 8 Ideals of Attachment Parenting. What do you think about co-sleeping or the family bed concept? What age is best to stop breast-feeding? Does positive discipline really work? We'll talk about these practices and others in our Gathering Wisdom section. Please share your thoughts and experiences with us.

Coming in May is our Panel Discussion on Oral Health Care for Children with Special Needs. Also, the CoP will feature two members, both mothers of children who have Autism Spectrum Disorder.

Please join us in the Early Childhood Family Support Community of Practice, CoP. Come in to share your own experiences or look for resources and information. Enter through

### www.beachcenter.org

Click on Communities of Practice. Then select the Early Childhood Family Support CoP. From here you can read all of the discussions. To add your own comments, you'll need to become a member of the CoP. Click on Become a Member. Complete your profile and click Submit. When you receive your email confirmation, you can sign in and start participating.

Check out what's happening in "Spreading the News" right now. Consider it your space to announce conferences and important events. You can also ask questions about specific disabilities, health concerns, or resources. Click on the Bulletin Board to get started.

### Appendix E

### **Early Childhood Family Support CoP Evaluation**

### 1. How long have you been a member of the Early Childhood Family Support CoP?

Less than one month
One month
Four months
Two months
Six months

Three months More than six months

### 2. What is your role(s) as a CoP member? (Please check all that apply)

Family member

Practitioner/Service professional

Researcher Policy leader

### 3. Approximately how often do you visit the CoP?

More than once a week Monthly
Weekly Bi-monthly

Bi-weekly Less than bi-monthly

# 4. Approximately how often do you participate in discussions or some other activity (e.g., wikis, blogs, posting materials) in the CoP?

More than once a week Monthly Weekly Bi-monthly

Bi-weekly Less than bi-monthly

# 5. Approximately how often do you download information (e.g., real stories, research briefs, discussion summaries) from the CoP?

More than once a week Monthly Weekly Bi-monthly

Bi-weekly Less than bi-monthly

### 6. How easy was it for you to become a member of the CoP?

Very easy Easy Neutral Difficult Very difficult

### 7. How easy is it for you to log into the CoP as a member?

Very easy Easy Neutral Difficult Very diffiult

	Very easy	Easy	Neutral	Difficult	Very diifficult			
9. How easy is it for you to start a discussion?								
	Very easy	Easy	Neutral	Diffiicult	Very difficult			
10.	10. How easy is it for you to respond to or contribute to a discussion?							
	Very easy	Easy	Neutral	Difficult	Very diifficult			
11.	•		•	_	out navigating the CoP?			
	Very easy	Easy	Neutral	Diffiicult	Very difficult			
12. How useful has the CoP been to you in terms of making contacts with others (e.g., family members, service providers, researchers, policy leaders) that had information you needed?								
	Very useful	Useful	Neutral	Slightly useful	Not at all useful			
13.	<b>How useful has tl</b> Very useful	ne CoP been Useful	<b>to you in terms (</b> Neutral	of making friends with Slightly useful	other members?  Not at all useful			
14. How useful have the CoP facilitators been to you in terms of finding information?								
	Very useful	Useful	Neutral	Slightly useful	Not at all useful			
15.	15. How useful has information from the CoP been to you?  Very useful Useful Neutral Slightly useful Not at all useful							
	very aserai	Cocrar	1 (outra)	ongittly doctur	T (or at air abora)			
16.	Overall, please ra Very good	<b>te the quality</b> Good	of the discussio Neutral		y bad			
	. 0				•			

8. How easy is it for you to locate content (e.g. a discussion topic or document) that interests you?