



Readings that Informed the Concept for the Network for Innovation and Creativity: An Annotated Bibliography



This annotated bibliography was prepared by the NPS Conservation Study Institute in cooperation with the University of Vermont to inform the development of a concept paper for a Network for Innovation and Creativity. The goal of the Network is to rapidly share knowledge, new approaches, and insights from practical experience to solve mission-critical problems and advance organizational excellence. In the initial phase of the Network, a pilot project is being conducted focused on youth development programs, a cross-cutting high priority area where new approaches are urgently needed. The Deputy Director's Office and the National Leadership Council have asked the Conservation Study Institute to coordinate this experimental pilot in partnership with NPS Youth Program Office.

The Institute and the University of Vermont worked with Alison Foster, a Student Conservation Association/Unilever intern with the Conservation Study Institute and Marsh–Billings–Rockefeller National Historical Park, to annotate this bibliography during the summer of 2011. During her internship, Alison spent three months in service at Marsh–Billings–Rockefeller National Historical Park and the Conservation Study Institute followed by three months in Congressman Welch's Office on Capitol Hill in Washington, D.C.

The Conservation Study Institute was established by the National Park Service to help the agency and its partners stay in touch with the evolving field of conservation, and to develop more sophisticated partnerships, new tools for community engagement, and new strategies for the 21st century. Through its programs in collaborative conservation, the Institute connects the Park Service to the larger world of conservation.

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**Readings that Informed the
Concept for the
Network for Innovation and Creativity:
An Annotated Bibliography**

**Prepared by the
NPS Conservation Study Institute and the University of Vermont
Through Cooperative Agreement H1818 08 0011**

**Annotated by Alison Foster
from materials that informed the Network Concept Paper,
compiled by the CSI Coordinating Team of
Jennifer Jewiss, Rebecca Stanfield McCown, Brent Mitchell and
Nora Mitchell**

**NPS Conservation Study Institute
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2011**

Introduction

This annotated bibliography is intended to be a resource for those interested in using networks to encourage innovation and creativity to enhance the learning and adaptability of an organization. The concept of a network for the National Park Service (NPS) and partners is a means to rapidly share knowledge, new approaches, and insights from practical experience to solve mission-critical problems and advance organizational excellence. The Network will directly benefit NPS and partner practitioners in all disciplines, building an engaged 21st century workforce with the capacity and creativity to accomplish the NPS mission. By supporting peer-to-peer collaboration across the national park system, the Network augments and leverages existing organizational structures and formal communication processes. Ultimately, the Network is a tool to help the NPS remain relevant and more effectively serve the American public.

As the National Park Service prepares for its second century, there is a sense of urgency to learn and adapt at a pace required by a rapidly changing world. To advance national priorities – relevancy, education, stewardship, and workforce – the Network will:

- accelerate dissemination of ideas and lessons learned
- build and sustain informal networks that connect practitioners across geographically dispersed sites and programs to enhance their ability to solve problems more quickly and strategically
- leverage existing investments in program development, evaluation and learning to provide greater benefits for the system – to think and learn like a system.
- attract, welcome, and retain the next generation of leaders who learn and communicate through online communities.

Key Components of a Network

1. Practitioners are the people of the NPS and their partners who use and contribute to the Network. They benefit from finding their peers and exchanging knowledge to improve their practice and their performance. They participate as individuals, in groups, and as communities of practice with colleagues who share a profession or an interest in a topic important to their work. Through their active participation the Network will grow and become increasingly useful.
2. Communication Tools will support rapid and widespread exchange among practitioners by using a variety of collaboration technologies. Practitioners will make critical new connections through expanded online communities—an internet platform of blogs, discussion forums, wikis, and other tools—in addition to video conferencing, telephone, email, and face-to-face meetings.
3. A Support Team will assist people as they build and use the Network and form communities of practice. Experience from other organizations indicates that to fully leverage the impact of a network it needs to be supported and cultivated, especially in the early phases of development. The Support Team will provide technical assistance and ensure that significant new learning is highlighted for the wider NPS community.

This bibliography has two sections – the first section provides a few introductory references on learning organizations and communities of practice; the second section provides a more extensive list of resources and examples from many organizations.

Section I. Introductory references on tools for learning organizations with a focus on the idea of a Community of Practice (CoPs).

“Communities of Practice.” *Wikipedia*. Accessed January 15, 2010.

http://en.wikipedia.org/wiki/Community_of_practice.

Provides a basic, easily digestible overview of CoPs, beginning with a discussion of their development. The ideas of mutual engagement, joint enterprise, and shared repertoire are used to describe its further evolution to the concept of social participation defined through domain, community, and practice. Examples of the differences between teams and CoPs, the advantages and benefits of CoPs, and factors including individual aspect, social presence, motivation, and collaboration of a successful CoP are provided. Seven other actions to cultivate a successful practice are also included.

Senge, Peter M., Art Kleiner, Charlotte Roberts, Richard B. Ross, and Bryan J. Smith. *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*. New York: Currency Doubleday, 1994.

Practical field book following the more philosophical approach discussed in the author’s previous book, The Fifth Discipline. Self-described as an “intensely pragmatic guide,” the book tells how to start a CoP and what to do on a daily basis in reinventing relationships, systems thinking in an organization, building a shared vision, and other related topics.

Wenger, Etienne. *Cultivating Communities of Practice: A Quick Start-Up Guide*. 2002.

http://www.ewenger.com/theory/start-up_guide_PDF.pdf.

Chart to assist in the beginning stages of cultivating a CoP. Fundamentals of a CoP, critical success factors, and reasons to focus on a CoP, are provided alongside steps to set a strategic context.

Wenger, Etienne, and William M. Snyder. Communities of Practice: The Organizational Frontier. *Harvard Business Review*, January/ February 2000, 139-145,

<http://hbswk.hbs.edu/archive/1317.html>.

Discusses how CoPs may reinvent organizations by describing the characteristics of a CoP and the reasoning for its use and success. Advantages of a CoP are presented as well as comparisons to formal working groups, project teams, and informal networks. Examples of instances of success are provided, along with discussion on the importance of cultivation in identifying potential communities and providing infrastructure.

Wheatley, Margaret. “Innovation Means Relying on Everyone’s Creativity.” *Leader to Leader Journal*, no. 20 (Spring 2001): 14-20, <http://www.pfdf.org/knowledgecenter/journal.aspx?ArticleID=107>.

The importance of innovation in today’s society is addressed, which it is argued can originate from anyone in an organization. Wheatley suggests that the paradigm of modern organizations and humans as mechanisms be discarded. Organizations are compared to living systems and diversity is said to be vital to their success as humans possess an inherent goodness which will drive them to innovation.

Wheatley, Margaret and Deborah Frieze. *Using Emergence to Take Social Innovation to Scale*. The Berkana Institute, 2008. <http://www.margaretwheatley.com/articles/using-emergence.pdf>. Discusses how the world changes through networks and emergence, and what these ideas mean in the context of the existing structure. The power possessed in consolidated knowledge is argued, leading to the four stage model of emergence developed by the Berkana Institute. The stages are name, connect, nourish, and illuminate which emerge through networks, CoPs, and systems of influence.

Section II. References that provide additional, more in-depth background on strategies, tools and practical examples from a wide range of organizations.

Abele, John. "Bringing Minds Together." *Harvard Business Review* 89, no. 7/8 (July-August 2011): 86-93. Article arguing the great value in collaborative efforts by providing a few compelling real world examples. By relaying first hand experiences, the author's examples are realistic and relatable. Through these examples, methods and styles of developing a following are suggested as well as different manners of leading. Tools that can be used to assist this process are also discussed.

Abou-Zeid, El-Sayed. "A Theory- Based Approach to the Relationship between Social Capital and Communities of Practice." *The Electronic Journal of Knowledge Management* 5, no. 3 (2007): 257-264. www.ejkm.com/issue/download.html?idArticle=109. Academic article on the base level characteristics of CoPs; the importance and unrecognized value in tacit knowledge and its relations to social capital and CoPs. Gidden's theory of structuralization is used, and CoPs are determined to be the means for realizing different types of modality between social capital and human action. It is decided that further research is needed in the constraining roles of a firm and the influence of social capital in CoPs.

Adams, James L. *The Care and Feeding of Ideas: A Guide to Encouraging Creativity*. Reading, Massachusetts: Addison-Wesley Publishing Company, Inc., 1986. Guide to encouraging creativity by understanding the creative process from the unconscious to the conscious level. Includes tips on how to break bad problem solving habits, that creativity involves risk, and that money and time are a muse's best friends.

Adler, Paul, Charles Heckscher, and Laurence Prusak. "Building a Collaborative Enterprise." *Harvard Business Review* 89, no. 7/8 (July-August 2011): 94-101. Article discussing what a shared purposed actually means within a real company structure and the ethic of contribution that is a fundamental aspect of this purpose. The structure needed to create a collaborative infrastructure is explained, as well are the inherent challenges that arise from such an endeavor.

Advancing the National Park Idea: National Parks Second Century Commission Report, (Washington, D.C.: National Parks Conservation Association, 2009). http://www.npca.org/commission/pdf/Commission_Report.PDF. Recent report summarizing the findings of the Second Century Commission, and independent commission given the task of developing a vision for the National Park Service in the twenty- first century. The national park idea is discussed and the commission's eight committees discuss their

findings. The importance of collaboration, building capacity, and the urgency in taking action are all topics highlighted within the report.

Agranoff, Robert. "Enhancing Performance through Public Sector Networks: Mobilizing Human Capital In Communities of Practice." *Public Performance & Management Review* 31, no. 3 (March 2008): 320-347. <http://www.mendeley.com/research/enhancing-performance-through-public-sector-networks-mobilizing-human-capital-communities-practice/>.

Study of intergovernmental networks with the belief that connection to human capital is essential to networks' success. Performance outcomes from the analysis of several different networks showed that CoPs were important in achieving collaborative outcomes.

Aguilar, Olivia M. and Marianne E. Krasny. "Using the Communities of Practice Framework to Examine an After-School Environmental Education Program for Hispanic Youth." *Environmental Education Research* 17, no. 2 (April 2011): 217-233. http://0-www.eric.ed.gov.novacat.nova.edu/ERICWebPortal/search/recordDetails.jsp?ERICExtSearch_Descriptor=%22Consumer+Education%22&ERICExtSearch_Facet_0=facet_edlevel&ERICExtSearch_FacetValue_0=%22Intermediate+Grades%22&_pageLabel=RecordDetails&accno=EJ920915&nfls=false. Study investigating the usefulness and applicability of CoPs in relation to environmental education. An afterschool education program for Hispanic youth was studied as a means of identifying the characteristics of CoPs identified by Wenger. It was also used to view how participation in these programs affected learning. The study suggested that these types of programs provide a suitable context for research on sociocultural theories of learning.

Albury, David. "Fostering Innovation in Public Services." *Public Money & Management* 25, no. 1 (2005): 51-56. doi: 10.1111/j.1467-9302.2005.00450.x.

Innovation is said to be essential to the success of public services, as the world within the public sector is constantly changing. Along with fostering innovation, the author provides a framework for thinking and action to allow more creative thinking and greater freedom. The barriers to innovation and questions on how to implement these ideas are also addressed.

Ben-Yehuda, Gadi, "Managing the Social-Media Paradigm Shift: Ride the Current, or Be Swept Aside," *IBM Center for the Business of Government*, last modified March 30, 2011, <http://www.businessofgovernment.org/blog/business-government/managing-paradigm-shift-ride-current-or-be-swept-aside>.

Discussion of recent talk of paradigm shifts, with an introduction to two specific shifts that the author expects. The first is from a push to pull information economy, and the second is from a centralized to distributed informational environment.

Borzillo, Stefano. "Top Management Sponsorship to Guide Communities of Practice." *Journal of Knowledge Management* 13, no. 3 (2009): 60-72. doi: 10.1108/13673270910962879.

Research on the managing of CoPs through a study of 47 CoPs in different organizations. These mechanisms for effective facilitation of CoPs are provided. It is suggested that the mechanisms should be investigated with other CoP members to understand their greater significance.

Brown, John S. "Unfreezing the Corporate Mind." *FastCompany.com*. Last accessed April 1, 2011.

<http://www.fastcompany.com/events/realtime/monterey/sessions/unfreezing.html>.

Short summary of the recommendations of John Seely Brown, who states: "if you want to change a corporation, you need to change the conversations happening within it." Brown suggests that CoPs

are the means of achieving this goal and also describes the three aspects of a CoP. He provides an example of success in CoPs through the Xerox Corporation as well.

Brown, John S. "The People Are the Company." *FastCompany.com*. Last modified October 31, 1995.

<http://www.fastcompany.com/magazine/01/people.html>.

To illustrate the potential and capacity of CoPs, Brown begins telling the story of Xerox's CoP and the success that stems from a self-selected informal working structure. The author describes and defines a CoP through examples and claims that technology is a necessary tool in facilitating a CoP.

Carayannis, Elias G. and Bruno Laporte. *By Decree or By Choice? A Case Study: Implementing Knowledge Management and Sharing at the Education Sector of the World Bank Group*. World Bank Institute, 2002. http://siteresources.worldbank.org/WBI/Resources/by_decry_or_choice.pdf.

Case study of the World Bank focusing on organizational change related to knowledge management. The study goes on to question the need for assessment and if better metrics would have assisted in implementing plans for organizational change. The use of knowledge management in education and lessons learned are also included.

Carmichael, Chris. "A. Federal KM Initiative Welcome Page," National Aeronautics and Space Administration, last modified March 18, 2009, <http://wiki.nasa.gov/cm/wiki/?id=6002>.

The Federal Knowledge Management Initiative, a sub-group of federal employees hoping to enhance collaboration and learning in the federal government is introduced. The group's action plan for enhancing inter-agency collaboration and knowledge sharing is presented.

Case Study: Social Computing in the United States Army. Newsgator: Business Value Through Social Computing.

<http://www.google.com/url?sa=t&source=web&cd=5&ved=0CDsQFjAE&url=http%3A%2F%2Fwww.ukceb.org%2FRWFilePub.php%3F%26cat%3D439%26dx%3D1%26ob%3D3%26rpn%3Dcatviewleafpublic439%26id%3D103687&rct=j&q=newsgator%20case%20study%3A%20social%20computing%20in%20the%20united%20states%20air%20force&ei=95RCTqydMsXn0QGR3ZC-CQ&usg=AFQjCNFpXqoyLX-b0IS2JhD75Lle9WQqgw&sig2=J128guDG1lb1qOn0JERnBA>.

Short case study example about CoPs developed by the Army, and in particular, Milspace, an integration of CompanyCommand and PlatoonLeader. The specific features of the tools created for the virtual CoP are described, as are firsthand accounts of how the CoP has benefited Army leaders.

Case Study: Social Computing in the United States Air Force. Newsgator: Business Value Through Social Computing.

Short case study example of how the adoption of CoPs has transformed the learning environment of the Air Force. The specific features of the tools created for the virtual CoP are described, as are the benefits that the Air Force has seen in the adoption of a CoP.

"Communities of Practice." *Wikipedia*. Accessed January 15, 2010.

http://en.wikipedia.org/wiki/Community_of_practice.

Provides a basic, easily digestible overview of CoPs, beginning with a discussion of their development. The ideas of mutual engagement, joint enterprise, and shared repertoire are used to describe its further evolution to the concept of social participation defined through domain, community, and practice. Examples of the differences between teams and CoPs, the advantages and benefits of CoPs, and factors including individual aspect, social presence, motivation, and collaboration of a successful CoP are provided. Seven other actions to cultivate a successful practice are also included.

“Computational Toxicology Communities of Practice.” *United States Environmental Protection Agency*.

Last modified May 5, 2011. http://www.epa.gov/ncct/communities_of_practice.html.

Computational Toxicology and Exposure Science CoP in the EPA that is open to staff from EPA, other federal agencies, industry, academic institutions, professional societies, NGOs, environmental non-profit groups, state agencies, and more. The purpose is to provide a forum for discussing topics of concern for this branch of EPA.

Cumming-Potvin, Wendy M. and Judith MacCallum. “Intergenerational Practice: Mentoring and Social Capital for Twenty-First Century Communities of Practice.” *McGill Journal of Education* 45, no. 2 (2010): 305-323.

http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=EJ908987&ERICExtSearch_SearchType_0=no&accno=EJ908987.

Presentation of data from a case study at the School Volunteer Program in Western Australia about the relationship between social capital and intergenerational practice within mentoring. Benefits and limitations are discussed in relation to situated learning theory and CoPs, and it is said that both can help build social capital. Further research regarding school based CoPs and power issues are called for.

Daniels, Christopher, Don Grove, and Ed Mundt. “Command and Communities of Practice.” *Air & Space Power Journal* (December 1, 2006).

<http://www.airpower.au.af.mil/airchronicles/apj/apj06/win06/daniels.html>.

Story and reflection on the military’s discovery of CoPs, and the great successes that they found in their utilization. The general structure of CoPs is described as well as CompanyCommand, the army’s CoP for commercial officers. The use of CoPs allowed the army to share valuable information that saved lives and increased interaction among officers.

Desjardins, Mike. “Leadership: Mike Desjardins.” *www.ProfitGuide.com* (December 2010/ January 2011): 39.

Desjardins comments on the changing environment in the business world today, where the internet is increasingly used. He speaks of the need for greater transparency and honesty and how employees in this area are going to need to adapt to this change.

Dixon, Nancy M., Nate Allen, Tony Burgess, Peter Kilner, and Steve Schweitzer. *Company Command: Unleashing the Power of the Army Profession*. West Point, New York: Center of Advancement of Leader Development and Organizational Learning, 2005.

Description of CompanyCommand, a widely successful CoP used by the U.S. Army and the important aspects in developing a CoP from the standpoint of a well developed CoP. The importance of effective leadership is emphasized and some of the first to develop the idea of a CoP are discussed.

Dvorak, Lora. “EPA Launches a Collaborative Web Site for Integrated Environmental Monitoring.” *California Water Environment Association E-Bulletin*. Last modified July 11, 2010.

<http://wp.cwea.org/?p=2736>.

Update on EPA’s Integrated Environmental Modeling Hub, a tool released by EPA’s CoP for branch of EPA. It will allow environmental researchers to analyze environmental problems and combine environmental models to form a better understanding of the environment.

“Experience Meeting Government’s Challenges: Consulting, Coaching, Measuring Performance &

Satisfaction,” Federal Consulting Group, last modified May 18, 2011, <http://fcg.nbc.gov/>.

The Federal Consulting Group (FCG), a franchise of the Department of the Interior, introduces the idea of a CoP, as well as the group’s CoP and their work coaching these groups. The general work of their consultants and the executive consultants is explained in relation to their work with CoPs.

Fayard, Anne-Laure and John Weeks. “Who Moved My Cube?” *Harvard Business Review* 89, no. 7/8 (July-August 2011): 102-110.

Discussion of how the physical layout of an office space can facilitate or discourage interaction among employees. The delicate balance and importance of proximity, privacy, and permission are addressed through several examples as are the challenges of creating a virtual world for interaction.

“Federal Learning Community: Introduction.” USA Learning: United States Office of Personnel Management. http://www.usalearning.gov/USALearning/communities_communities.htm. Website about USA Learning’s CoP, which is part of the U.S. Office of Personnel Management. The actual applications of this CoP and the general benefits of CoPs are described on the website.

Fulmer, William E. The World Bank and Knowledge Management: The Case of the Urban Services Thematic Group. *Harvard Business Review*, January 5, 2001, doi: 10.1225/801157.

Provides background and some history of the World Bank and then moves to its declaration in 1996 that it wanted to be a clearinghouse for knowledge about development. The management and knowledge initiatives that were taken, as well as assessment, challenges, and the use of thematic groups- particularly relating to the urban poor, are described. The strategy of the World Bank is also provided.

Ghorashi, Sohail and Larry Prusak. *Communities of Practice, Social Capital and Organizational Knowledge*. IBM Institute for Knowledge Management, August 2004.

<http://www.clab.edc.uoc.gr/hy302/papers/communities%20of%20practice.pdf>.

Paper on CoPs, the importance of social capital and how CoPs contribute to social capital. The different dimensions of CoPs in their contribution to social capital is described as well as the implication to managers.

Gold, Jeff and Stuart Watson. “Exploring the Dark Sides of Learning: A Communities of Practice Perspective” in *Researching Work and Learning: A First International Conference* (Adelaide, Australia: National Centre for Vocational Education Research, 1999), 198-206.

Paper examining a collaborative approach to researching and learning, which is identified as a fundamental aspect of CoPs. Attention is paid to the affect of interests and values in projects responses, and it is concluded that researching work and learning can contribute to its effectiveness.

Gongla, Patricia and Christine R. Rizzuto. Evolving Communities of Practice: IBM Global Services Experience. *IBM Systems Journal* 40, no. 4 (2001): 844.

<http://researchweb.watson.ibm.com/journal/sj40-4.html>.

Pyramid chart of IBM knowledge management framework relating leadership to management systems, environmental factors, incentives, and measurements. Different types of leadership are compared and aspects of environmental factors and management systems such as organization and strategy are provided.

Gotto IV, George S., Ann Turnbull, Jean Ann Summers, and Marta Blue-Banning. “Community of Practice

Development Manual," Beach Center on Disability, last modified May 31, 2009, <http://www.researchutilization.org/products/copmanual/>.

Guide to developing a CoP based on the experience of the Beach Center on Disability. An introduction to CoPs, the architecture and components of a CoP, and its evaluation are included. Information about facilitation and details of setting up a virtual CoP are provided as well as sample materials used by the Beach Center in their efforts to get the community involved.

"Green Jobs." Green Jobs: Building Pathways for a Green Workforce supported by the United States Department of Labor, Employment, and Training Administration.

<https://greenjobs.workforce3one.org/ws/greenjobs/pages/about.aspx?pparams=>.

A CoP for workplace professionals and green job thought leaders to share and create partnerships for Green Job Workforce Solutions. The particular tools provided in the CoP are described as well as its membership base.

Gwin, Catherine. *Sharing Knowledge: Innovations and Remaining Challenges* (Washington, D.C.: 2003).

[http://inweb90.worldbank.org/oed/oeddoclib.nsf/DocUNIDViewForJavaSearch/F3A114765B80EB1585256DBB006AFB1E/\\$file/knowledge_evaluation.pdf](http://inweb90.worldbank.org/oed/oeddoclib.nsf/DocUNIDViewForJavaSearch/F3A114765B80EB1585256DBB006AFB1E/$file/knowledge_evaluation.pdf).

Evaluation of the World Bank's initiatives to be a global knowledge bank. The report concludes that the bank has created the structure for increased knowledge sharing, but that the original goal has yet to be reached. A description of this structure and a discussion of the strengths and weaknesses of the strategy are included. Future recommendations, necessary support systems, and interaction with clients and partners are included in the report as well.

Hansman, Catherine A. "Adult Learning in Communities of Practice: Situating Theory in Practice" in *Communities of Practice: Creating Learning Environments of Educators* (United States: Information Age Publishing, Inc., 2008), 293-309.

Chapter discussing the role of adult education in relation to CoPs, and the role of different types of learning, such as self-directed and experiential learning. These ideas are all brought together to discuss the use of knowledge of non-experts, such as CoPs, in adult learning.

Hebenstreit, Karl. "C-1. Communities of Practice," National Aeronautics and Space Administration, last modified March 18, 2008, <http://blogs.nasa.gov/cm/wiki/?id=1943>.

Description of a CoP developed by the federal government with sponsorship from the Knowledge Management Working Group. More than 20 different federal agencies are represented in the CoP with a goal to serve as a guide and model for CoPs on the federal level. The Xerox example, the benefits of a CoP, and ways to encourage the development of a CoP are all included, along with its definition.

Hoskins, Bryony, Jan G. Janmaat, and Ernesto Villalba. "Learning Citizenship Through Social Participation Outside and Inside School: An International, Multilevel Study of Young People's Learning of Citizenship." *British Educational Research Journal*, (March 17, 2011). doi: 10.1080/01411926.2010.550271.

Article tackling a study about less formal learning as a process of social participation for young people to develop positive attitudes about democracy. The effect of civic education is contrasted to meaning making activities and the usefulness of situated learning are discussed.

Hurley, Thomas J., and Juanita Brown. "Conversational Leadership: Thinking Together for a Change." *Systems Thinker* 20, no. 9 (November 2009): 2-7,

<http://www.theworldcafe.com/articles/Conversational-Leadership.pdf>.

In his article Hurley remarks on the power and creative potential in conversational learning. By using examples from participants in World Café conversations, conversational leadership is explained and analyzed. Principles of its use are provided, including tools for hosting effective conversations. The importance of including everyone is addressed as well as the essential qualities of a good leader.

“Harnessing Informal Networks,” *IBM Center for the Business of Government*, last modified March 10, 2010, <http://www.businessofgovernment.org/blog/harnessing-informal-networks>.

Reflection on the current status of CoPs in our community and response to an article in the Harvard Business Review stating that CoPs are dead. The author believes that effective CoPs simply have a different structure than previously with greater management and deadlines. Strategies for creating communities according to the authors of the Harvard Business Review article are provided.

Ibarra, Herminia and Morten T. Hansen. “Are You a Collaborative Leader? How CEOs Keep Their Teams Connected.” *Harvard Business Review* 89, no. 7/8 (July-August 2011): 68-74.

Article discussing the importance of collaborating and communicating with a variety of employees within an organization or company. The authors provide examples of how companies have been able to connect with other employees and the benefits that have come from more connections within and with other companies. The danger of focusing too greatly on collaboration and losing control in new freedom is addressed as well. Different leadership styles are compared to help readers identify what style would fit best with their organization.

Iverson, Joel O. and Robert D. McPhee. “Communicating Knowing Through Communities of Practice: Exploring Internal Communicative Processes and Difference Among CoPs.” *Journal of Applied Communicative Research* 36, no. 2 (May 2008): 176-199, doi: 10.1080/00909880801923738.

Through the investigation of two case studies, the communicative nature of CoPs is investigated through mutual engagement, negotiation of joint enterprise, and shared repertoire is analyzed and discussed. The research was conducted to identify, distinguish, and evaluate the communicative processes of CoPs. A general description of CoPs is included.

Kamensky, John, “Obama’s FY 2011 Management Initiatives,” *IBM Center for the Business of Government*, last modified February 15, 2011, <http://www.businessofgovernment.org/blog/business-government/obamas-fy-2012-management-initiatives>.

Commentary on Obama’s management initiatives which is focused on achieving mission-oriented results. Kamensky discusses other new initiatives put forth by the president, one of which is to establish a problem solving network, or CoP, which will be organized across agencies.

Kilner, Peter. “Transforming Army Learning Through Communities of Practice.” *Military Review* 82, no. 3 (May- June 2002): 21-27. http://www.dtic.mil/dtic/aulimp/citations/2002_3q_1473/610.html.

Discussion on how the army is adopting a digital Warrior Network to support leader development, which is basically a grouping of CoPs. Kilner discusses how this tool has the potential to revolutionize army’s business by using a model that has been used for a long period of time. The applicability to the army and distinction between this CoP and CompanyCommand is also made.

Kimble, Chris and Paul Hildreth. “Communities of Practice: Going One Step Too Far?” Conference Paper in Proceedings, 2004.

Investigation of and reflection on the development of CoPs related to the principles of knowledge management and their differences in information sharing. The article contrasts the CoPs of 2004,

the most current CoPs when the article was released, to those of the 1990s. It then asks if CoPs are applicable to the business environment and if they can be truly virtual. It appears that there is a great focus on the “supposed benefits” of CoPs and little on their potential flaws.

Laferriere, Therese and Fernand Gervais. “Communities of Practices Across Learning Institutions,” in *Communities of Practice: Creating Learning Environments for Educators* (Charlotte, NC: Information Age Publishing, 2008), 179-197.

Description of the sociotechnical designs that highlight the situations creating the transition from small scale CoPs to large, virtual, interconnected CoPs. Three case studies relating to non-conventional forms of teacher education and professional development are presented and analyzed.

“Leadership Alchemy Program.” NASA Goddard Space Flight Center. Last modified January 30, 2007.

<http://ohcm.ndc.nasa.gov/DevGuide/DevPrograms/Alchemy/overview.html>.

Website and PowerPoint link (LAP Brochure under Overview-Documents) providing an overview, key components, and the philosophy behind NASA’s Leadership Alchemy Program. This leadership development program focuses on relating to others, leading and managing change, and leading and managing people. There is an emphasis on the idea that learning in the context of community is highly experiential and holistic.

Lesser, Eric. *Creating Value with Knowledge*. New York: Oxford University Press, 2004. doi: 10.1093/0195165128.001.0001.

Examination of a variety of knowledge management topics from a variety of leading authors. Information from the IBM Institute for Knowledge Based Organizations enhances the discussion of the value in people, systems, and processes.

Lesser, E.L. and J. Storck. “Communities of Practice and Organizational Performance.” *IBM Systems Journal* 40, no. 4 (2001): 831-841. <http://tc520.pbworks.com/f/IBM+CoP+Article.pdf>.

Study of the relationship between the development of social capital, behavioral changes, and increased business performance. Four performance outcomes based on a study of seven organizations where CoPs are thought to add value were identified. The connections among practitioners were studied, as well as the relationships that built trust and mutual obligation through a shared language and context.

MacKenzie, Gordon. *Orbiting the Giant Hairball: A Corporate Fool’s Guide to Surviving with Grace*. New York: Viking, 1996.

MacKenzie draws on his 30 years of experience at Hallmark to illustrate how corporations have tendency to stifle creativity and innovation among employees. Using stories from his business and personal life, he highlights ways to foster imagination and feed ideas to create an engaged, empowered, and motivated workforce.

McDermott, Richard and Douglas Archibald. *Harnessing Your Staff’s Informal Networks*. *Harvard Business Review*, 2010, 1-7,

<https://archive.harvardbusiness.org/cla/web/pl/product.seam?c=3116&i=3118&cs=e75f58eadeaaf3fa95456fdf20c8c8fd>.

General discussion on CoPs, relating the general structure with their advantages, and also where they can potentially suffer from downfalls. In their study, McDermott and Archibald investigated numerous communities, which are referenced throughout the article. The differences between CoPs and teams, as well as methods of maximizing their impact are included.

- McGarvey, Craig. *Learning Together: Collaborative Inquiry Among Grant Makers and Grantees*, GrantCraft: Practical Wisdom for Grantmakers, 2006.
<http://www.grantcraft.org/index.cfm?fuseaction=Page.ViewPage&pageId=1541>.
Manual with information on collaborative inquiry related to grant makers. The utility of collaborative inquiry, its definition, a case study using it to support growth in a new field, and common questions related to collaborative inquiry are all included. Also addressed are several things that grant makers should consider.
- Menkhoff, Thomas, Yue Wah Chay, Benjamin Loh, and Hans-Cieter Evers. "Exploring the Antecedents of Knowledge Outcomes in Organisational Settings: An Empirical Study." *International Journal of Knowledge Management Studies* 4, no. 1 (2010): 65-79. http://www.uni-bonn.de/~hevers/papers/Menkhoff-Chay-Loh-Evers2010-knowledge_antecedents.pdf.
Study on the antecedents of knowledge outcomes in knowledge intensive organizations. Drivers of knowledge outcomes and a survey of a knowledge based organization in Singapore indicated knowledge outcomes are influenced by the interaction of knowledge tools and the modus of knowledge combination.
- Mertl, John. "Make the Net Work." By Fast Company Staff. *FastCompany.com*. Last modified February 28, 2003. http://www.fastcompany.com/fast50_02/people/values/tomoye.html.
Short interview with John Mertl of the Tomoye Team, who were one of the first to develop and sell software designed to advance the ideas of communities of practice. It speaks of the company's success and some of the organizations that they have worked with.
- Mitchell, John. *Effectively Structuring Communities of Practice in VET*. Reframing the Future (Brisbane, Australia: Australian National Training Authority, 2003).
http://www.reframingthefuture.net/docs/2003/Publications/4CP_COP2002_report.pdf.
Study on the impacts of effectively structured CoPs on the national training system in the vocational education and training sector. 48 CoPs that were part of Reframing the Future, a national staff development and change management program, were included in the study. The study summarizes CoP effectiveness and structure to vocational education and training.
- Mitchell, John, Sarah Wood, and Susan Young. *Communities of Practice: Reshaping Professional Practice and Improving Organisational Productivity in the Vocational Education and Training (VET) Sector: Resources for Practitioners*. Reframing the Future (Melbourne, Australia: Australian National Training Authority, 2001).
http://www.reframingthefuture.net/docs/2003/Publications/4CP_cop.pdf.
Paper analyzing the underlying theories behind CoPs within vocational education and training in assisting workplace learning and closer collaboration. Also provides an outline of the benefits that can potentially arise from a CoP.
- Moote, Ann and Kimberly Lowe. "What to Expect from Collaboration in Natural Resource Management: A Research Synthesis for Practitioners." Northern Arizona University Ecological Restoration Institute, February 2008,
<http://library.eri.nau.edu/gsd/collect/erilibra/index/assoc/HASH01d8/e44d1a40.dir/doc.pdf>.
Literature review of the expected outcomes and characteristics of effective collaborative resource management. Empirical research was used to identify commonly reported outcomes of collaborative resource management and practices and guidelines for effective resource management.

Muoio, Anna. "How Is Your Company Like a Giant Hairball?" *FastCompany.com*, last modified December 31, 1997. <http://www.fastcompany.com/magazine/12/hairball.html>.

Article that is a "recipe" for creating a creative revolution within the structure of a company. Muoio encourages readers to ignore pressure limitations and worry and to make decisions that will lead to greater creativity.

Nesbit, Trevor. "The National Advisory Committee on Computing Qualifications: A Community of Practice Case Study from New Zealand." *The International Journal of Knowledge, Culture and Change Management* 8, no. 12 (2009): 35-44.

http://m08.cgpublisher.com/proposals/467/index_html.

Article describing CoPs and knowledge management as related to the National Advisory Committee on Computing Qualifications (NACCQ) in New Zealand. An examination of CoP literature, the history of the NACCQ, and the believed success in relation to the principles of CoPs are included.

"Operation Knowledge Communities." United States Department of Transportation: Federal Highway Administration. Last modified August 10, 2011.

<http://knowledge.fhwa.dot.gov/cops/opspublic.nsf/home>.

Website about the Federal Highway Administration's Operations Knowledge Communities, the Department of Transportation's CoP. A description of what these CoPs are and the purpose of this particular CoP is included.

Pink, Daniel H. *A Whole New Mind: Why Right-Brainers Will Rule the Future*. New York: Riverhead Books, 2006.

Based on the prevailing assumption that activities involving the left side of the brain are of greater practical use, the author argues that right-brain thought, related to designers, inventors, and storytellers, will soon become more important. From extensive research the author describes the six fundamentally human abilities that are essential to professional success and personal fulfillment.

Pommier, Michel. "How the World Bank Launched a Knowledge Management Program."

Knowledgepoint.com.au, last modified 2007.

http://www.knowledgepoint.com.au/knowledge_management/Articles/KM_MP001a.html.

Based on the experience of the World Bank in its establishment of a CoP, eight pillars in identifying a clear strategy based on business needs are defined. The World Bank's process of defining a knowledge strategy, deciding what to share, why, how, and with whom are all discussed relating to business decisions.

Robins, Michael. "Improving Your Knowledge-Sharing Culture." *Knowledgepoint.com.au*, last modified 2007. http://www.knowledgepoint.com.au/knowledge_management/Articles/KM_CP001.html.

The importance of establishing a knowledge sharing culture in a company and stressing the need to share are discussed. Also addressed is promoting trust, being aware of information overload, having the right tools for knowledge sharing, and having the power to replace and move individuals should it be necessary.

Rodin, Judith. "Advancing Public-Private Innovation: Talking with the Rockefeller Foundation's Judith Rodin." By Tom Fox. *The Washington Post* (March 9, 2011).

<http://views.washingtonpost.com/leadership/fedcoach/2011/03/public-private-innovation-rockefeller-foundation-judith-rodin.html>.

Interview with Judith Rodin, current president of the Rockefeller Institute, and past president of the University of Pennsylvania. Rodin shares a story from her time at the University and speaks to what is required in creating change as an innovative leader. She also states that financial stress can and has been a time for the best innovation and that networks are the most effective organizational innovation.

Rogers, Everett M. *Diffusion of Innovations*, 4th ed. New York: The Free Press, 1995.

Describes the theory of diffusion of innovations, which explains how, why, and at what rate ideas and technology spread through cultures. The elements of diffusion, the history of diffusion research, the innovation-decision process, diffusion networks, and innovations in organizations are all discussed.

Schenkel, Andrew and Robin Teigland. "Improved Organizational Performance Through Communities of Practice." *Journal of Knowledge Management* 12, no.1 (2008): 106-118.

<http://www.emeraldinsight.com/journals.htm?articleid=1697484&show=html>.

Research paper about a study completed on the communication patterns and performance of four CoPs. The research was completed using interviews, surveys, and company records focusing on CoPs in only one organization. This fact meant that the results could not be generalized; however, this data is a great contribution to the minimal amount of research that has been completed regarding CoPs.

Senge, Peter M. *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Currency Doubleday, 1990.

Slightly dated, but well received work on the structure and function of organizations. Using examples of companies that have adopted the disciplines described by the author, the book teaches how to inspire genuine learning, bridge teamwork, and free the reader from confining mindsets.

Senge, Peter M., Art Kleiner, Charlotte Roberts, Richard B. Ross, and Bryan J. Smith. *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*. New York: Currency Doubleday, 1994.

Practical field book following the more philosophical approach discussed in the author's previous book, *The Fifth Discipline*. Self-described as an "intensely pragmatic guide," the book tells how to start a CoP and what to do on a daily basis in reinventing relationships, systems thinking in an organization, building a shared vision, and other related topics.

Singh, Penny. "Developing a Community of Thinking: Assessment of Environmental Education."

Environmental Education Research 17, no. 1 (2011): 113-123. doi: 10.1080/13504622.2010.484881.

Paper discussing a study in social constructivist framework in practical activities and first hand experiences through situated learning, as well as constructing and assessing knowledge in CoPs. The use of CoPs in environmental education is addressed along with the efficacy of oral assessments to encourage dialogue.

Smith, John D. "Coping With So Many CoPs." *CPSquare: The Community of Practice on Communities of Practice*. Last modified May 8, 2011. <http://cpsquare.org/>.

Blog on CPSquare, a website functioning as a CoP to aid in the proliferation and expansion of CoPs. Written by John David Smith, the blog discusses a series of topics, such as dealing with so many CoPs, showcasing successful CoPs, and serving as a space for reflection.

Smith, Mark. "Communities of Practice." *The Encyclopedia of Informal Information*. Last modified January 30, 2005. <http://pubpages.unh.edu/~jds/CofPractice.htm>. Discussion of the idea of informational and situated learning in relation to the development of CoPs. An explanation of a CoP is provided and its focus in social relationships. The affect of social capital to create behavioral change is argued and further reading is provided.

Snyder, William M. and Xavier de Souza Briggs. *Communities of Practice: A New Tool for Government Managers*. IBM Center for the Business of Government, November 2003. http://www.businessofgovernment.org/sites/default/files/Communities%20of%20Practices.odf_.pdf. In-depth report describing CoPs, their utility, and how to successfully employ one. Case studies and examples of CoPs are provided as well as information on how federal agencies can cultivate CoPs. The important role of the federal government in building community is discussed and appendices with supplemental educational materials are provided.

Snyder, William M. and Etienne Wenger. "Our World as a Learning System: A Communities-of-Practice Approach." In *Create a Learning Culture: Strategy, Practice, and Technology*, 35-59. New York: Cambridge University Press, 2004. http://www.worlddesign.org/uploads/03.07.19_SnyderWengerCUP_7-15_final_sent_-_PLEASE_DO_NOT_COPY_OR_DISTRIBUTE_W_O_PERMISSION_w-f.pdf. In-depth and detailed article describing the importance, relevance, characteristics, and purpose of CoPs. Examples of existing CoPs, such as groups working to advance economic development in Chicago and the SafeCities program working to reduce gun violence, as well as explanations of potentially challenging aspects of forming a CoP are included. The structure of large scale learning systems and their challenges are described and discussed.

"Social Media Trends in Gov for 2010," *IBM Center for the Business of Government*, last modified November 25, 2009, <http://www.businessofgovernment.org/blog/social-media-trends-gov-2010>. Personal reflection on the benefits of social media, from the perspective of someone who considers himself fairly low-tech.

Song, Ji Hoon. "A Theoretical Approach to the Organizational Knowledge Formation Process: Integrating the Concepts of Individual Learning and Learning Organization Culture." *Human Resource Development Review* 7, no. 4. (December 1, 2008): 424-442. doi: 10.1177/1534484308324983. Examines the relationship between individual learning processes and organizational knowledge through a literature review. Through this investigation, the author has created a conceptual map for effective organizational performance.

Stone, Mark and Harriet Dismore. "Supporting Diverse and Dispersed Communities of Practice." Workshop delivered at the GEES Learning and Teaching 2000 to 2020 at the University of Plymouth, July 7 - 9th 2010. Workshop that was created as a reflection on the use of CoPs at the University of Plymouth. The importance of supporting CoPs and how they pertain to the student experience in higher education is discussed as a means of sharing other challenges and experiences in the creation of CoPs. Through this experience participants are expected to have fulfilled several stated objectives.

Underhill, Brantlee and Etienne Wenger. "What is a Community of Practice?" Project Management Institute video, 4:29. December 9, 2009. <http://www.youtube.com/watch?v=63rQ3S8EHoA>.

Explains the purpose and logical thinking behind a community of practice, and how it allows for knowledge sharing.

Wangler, Joan. "What's Cooking at the Civility Café!" Federal Consulting Group, last accessed July 6, 2011, http://fcg.nbc.gov/pdf/civility_cafe_ezine_v5.pdf.

"Cookbook" of several "recipes" put together by the Civility Café, a series of dialogues organized by the Creative Learning Group experience at NASA, World Café, Open Spaces, and other groups. The "recipes" are short vignettes of ways to shape dialogue and consider the concept and practice of civility and engagement.

Wangler, Joan, and Lee Salmon. "Leaders Grow Leaders: Creative Learning Groups at NASA/Goddard and EPA." *Executive Development Exchange Network*. Last modified January 26, 2005.

<http://fcg.nbc.gov/documents/eden.pdf>.

Description of NASA's CoPs, titled Creative Learning Groups, which were created to promote a coaching culture supporting their organization's established project management. Three groups were created, two of self-selected volunteers that set their own mission and another of recruits. The document describes the course that these groups took and the vision that these groups developed. These particular groups have a strong focus in leadership.

Wenger, Etienne. "Communities of Practice." Last modified June 2006.

http://www.ewenger.com/theory/communities_of_practice_intro.htm.

Provides a definition for a CoP, including its three fundamental characteristics and some examples. The origin of CoPs, areas where the idea is being applied, and further reading are included.

Wenger, Etienne. *Cultivating Communities of Practice: A Quick Start-Up Guide*. 2002.

http://www.ewenger.com/theory/start-up_guide_PDF.pdf.

Chart to assist in the beginning stages of cultivating a CoP. Fundamentals of a CoP, critical success factors, and reasons to focus on a CoP, are provided alongside steps to set a strategic context.

Wenger, Etienne, Nancy White, and John D. Smith. *Digital Habitats: Stewarding Technology for Communities*. Portland, OR: CPsquare, 2009.

This book focuses on the role of technology in supporting communities of practice. In particular, this user-friendly resource discusses the role of technology stewards and provides practical guidance grounded in the theory on CoPs and group dynamics.

Wenger, Etienne. "Index to Services." Accessed February 8, 2010.

<http://www.ewenger.com/services/servmain.htm>.

Describes the author's interactive work in consulting and workshops to help spread the idea of a CoP. Wenger also briefly speaks of his work on case studies, assessment, public speaking, and further research. He believes in developing the capabilities of the partner organization as opposed to "outsourcing" this work.

Wenger, Etienne. "Interview with Etienne Wenger on Communities of Practice." *Knowledge Board* (November 3, 2003). <http://www.knowledgeboard.com/cgi-bin/item.cgi?id=458>.

Interview with Wenger centering on the focus and function of CoPs. Community structure and characteristics in relation to community participation and knowledge sharing are discussed. Wenger speaks of future (now past) trends regarding collaboration.

Wenger, Etienne. "Knowledge Management as a Doughnut: Shaping Your Knowledge Strategy Through

Communities of Practice." *Ivey Business Journal*. (January/February 2004): 1-8, <http://www.knowledgeboard.com/download/1890/Knowledge-management-as-a-doughnut.pdf.pdf>.

This is a general article on CoPs written for a business journal arguing the advantages of knowledge management despite contrary belief. Principles and elements of knowledge management and CoPs are provided. Key issues are addressed and experience is reflected upon. The importance of sponsorship, recognition, and support are also noted.

Wenger, Etienne, and William M. Snyder. *Communities of Practice: The Organizational Frontier*. *Harvard Business Review*, January/ February 2000, 139-145, <http://www.stevens.edu/cce/NEW/PDFs/commprac.pdf>.

Discusses how CoPs may reinvent organizations by describing the characteristics of a CoP and the reasoning for its use and success. Advantages of a CoP are present as well as comparisons to formal working groups, project teams, and informal networks. Examples of instances of success are provided and the importance of cultivation in identifying potential communities and providing infrastructure.

Wenger, Etienne, Richard McDermott, and William A. Snyder. *Cultivating Communities of Practice*. Boston: Harvard Business School Press, 2002.

Self-described as "essential reading for any leader in today's knowledge economy," this book not only describes a CoP and its advantages, but also the methods of establishing one. By using in-depth case studies from well known companies and organizations, the challenges, unique features, and development of CoPs are described.

Wenger, Etienne, Nancy White, John D. Smith, and Kim Rowe. "Technology for Communities." Essay summarizing the findings of a larger study of communities of practice and the technologies used for Centre francophone d'informatisation des organisations (CEFRIO), January 18, 2005.

Wenger summarizes a study of CoPs for the U.S. government relating to the use of technology in creating connections to bring members together. The evolution of the market and challenges and successful utilization of technology are analyzed.

"What is the World Café?" *World Café*, last accessed July 11, 2011, <http://www.worldcafe.com/what.htm>.

Description of the World Café as a global community of conversational process based on integrated design principles. Through this framework it hopes to create a living network of conversations to explore topics of importance and develop personal relationships and dialogues.

Wheatley, Margaret. "Background: Thoughts from Margaret Wheatley." A Project for the National Leadership Council: Develop a Concept Paper for a Network for Innovation, Creativity, and Change, February 22, 2011.

Summarizes the emergence of the Network for Innovation, essentially a network of CoPs for the National Park Service. A description of the purpose of the Network, the need for it, its core beliefs, potential uses, and projected manner in which it will be created are included.

Wheatley, Margaret. "Goodbye Command and Control." *Leader to Leader*, (July 1997).

<http://www.margaretwheatley.com/articles/goodbyecommand.html>.

The author calls for greater autonomy in organizations, stating that self-led groups are more productive and content than the traditional model. More faith should be placed in these leaders

and other employees as they have good intentions and greater abilities than many employers realize.

Wheatley, Margaret. "Innovation Means Relying on Everyone's Creativity." *Leader to Leader Journal*, no. 20 (Spring 2001): 14-20, <http://www.pfdf.org/knowledgecenter/journal.aspx?ArticleID=107>. The importance of innovation in today's society is addressed, which it is argued can originate from anyone in an organization. Wheatley suggests that the paradigm of modern organizations and humans as mechanisms be discarded. Organizations are compared to living systems and diversity is said to be vital to their success as humans possess an inherent goodness which will drive them to innovation.

Wheatley, Margaret. "Journeying to a New World." *Adaptation of Epilogue to Leadership and the New Science: Discovering Order in a Chaotic World*. San Francisco: Berrett-Koehler Publishers, 2006. <http://www.margaretwheatley.com/articles/journeying.html>. In this article the author is trying to connect with her own suggestion of challenging one's worldview and beginning to understand that the world is governed by chaos. Through the course of her writing, Wheatley comes to her own realization, which she shares with the reader in hopes that it will bring people together. The tone is realistic, recognizing the challenges of what Wheatley has proposed and working in this world.

Wheatley, Margaret J. *Leadership and the New Science: Discovering Order in a Chaotic World*, 3rd ed. San Francisco: Berrett-Koehler Publishers, Inc, 2006. Widely acclaimed book on the new science of organization and management. Wheatley describes how the new science effects of understanding of the world and how we can more effectively communicate and work together. The importance of relationships, understanding and participating in connections, and the role of chaos in change are discussed.

Wheatley, Margaret. "Leadership Lessons for the Real World." *Leader to Leader Magazine*, Summer 2006. <http://www.margaretwheatley.com/articles/leadershiplessons.html>. Short article questioning the definition of the "real world" according to Western culture and how we organize ourselves accordingly. The author proposes that we reconsider this view as she believes the world to be an interconnected set of networks.

Wheatley, Margaret. "The Real Work of Knowledge Management." *IHRIM Journal* 5, no. 2 (April/June 2001): 29-33). <http://www.margaretwheatley.com/articles/management.html>. Although the article is slightly outdated, Wheatley speaks of the wealth of information available in the world today. Managing this information and managing our knowledge is a challenge that comes to head with many outdated beliefs, such as the belief that organizations are machines. Understanding true knowledge management is important and means recognizing the great deal of individual knowledge that exists.

Wheatley, Margaret. "The Real World: Leadership Lessons from Disaster Relief and Terrorist Networks." In *Leadership and the New Science: Discovering Order in a Chaotic World*, 169-189. San Francisco: : Berrett-Koehler Publishers, 2006. <http://www.margaretwheatley.com/articles/therealworld.html>. In reflecting upon the rescue missions from Hurricane Katrina, the author argues that clear established leadership has the potential to be a hindrance to productivity. Established protocol and organized leadership inhibit people's natural abilities and prohibit spontaneous or independent action. The qualities that form an effective leader are analyzed, along with the tactics of terrorist groups.

Wheatley, Margaret. "Supporting Pioneering Leaders: How to Rapidly Develop New Leaders in Great Numbers." Last modified 2002.

<http://www.margaretwheatley.com/articles/supportingpioneerleaders.html>.

Wheatley touches upon many topics relating to organizational structure and change. Scientific studies and experience have shown that the old leadership paradigm has failed, but that new approaches, such as CIDA in South Africa, have begun a shift in the opposite direction. The difficulty in moving away from the past is addressed. CoPs are suggested as a solution to the leadership issue and the four elements of organizational success are discussed.

Wheatley, Margaret. "We Can Only Be Wise Together." Preface for *The World Café: Shaping Our Futures Through Conversations That Matter* by Juanita Brown, David Isaacs, and World Café Community. San Francisco: Berrett-Koehler Publishers, 2005.

<http://www.margaretwheatley.com/articles/prefacetoworldcafe.html>.

Short article centering on the idea of opening our minds to the idea of sharing knowledge within a group and believing in the power that exists within this group. The author remarks on the importance of diversity and finishes with the relief found in reconnecting with Café culture.

Wheatley, Margaret, and Geoff Crinean. "Solving, Not Attacking, Complex Problems: A Five-State Approach Based on Ancient Practice." Margaret J. Wheatley. Last modified 2004.

<http://www.margaretwheatley.com/articles/solvingnotattacking.html>.

Here Wheatley reflects on the disability that organizations currently suffer from in regard to solving their problems. She believes that the current approach is much too aggressive, which has resulted in problems becoming unsolvable. In response to this issue, Wheatley has suggested a five stage method for groups to reevaluate their problem solving ability.

Wheatley, Margaret and Deborah Frieze. "How Large Scale Change Really Happens- Working With Emergence." *The School Administrator*. (April 2007): 35-38, http://www.deborahfrieze.com/wp-content/uploads/2011/03/FriezeWheatley__SchoolAdmin.pdf.

The idea of emergence is introduced to describe the means of creating change. The importance of cross communication and networking is described, particularly in the context of CoPs in the U.S. Army and schools. Used together, CoPs and emergence are powerful tools for change.

Wheatley, Margaret and Deborah Frieze. *Using Emergence to Take Social Innovation to Scale*. The Berkana Institute, 2008. <http://www.margaretwheatley.com/articles/using-emergence.pdf>.

Discusses how the world changes through networks and emergence, and what these ideas mean in the context of the existing structure. The power possessed in consolidated knowledge is argued, leading to the four stage model of emergence developed by the Berkana Institute. The stages are name, connect, nourish, and illuminate which emerge through networks, CoPs, and systems of influence.

Wheatley, Margaret and Myron Kellner-Rogers. "What Do We Measure and Why? Questions About the Uses of Measurement." *Journal for Strategic Performance Measurement*, (June 1999).

<http://www.margaretwheatley.com/articles/whymeasure.html>.

Wheatley questions the current approach to assessment, in that we spend too much time measuring and standardizing our valuation into numerical terms. However, the author states that this cannot be how we conduct assessments if we want qualities such as teamwork, learning, and quality. She then continues, suggesting that feedback should be the manner in which we assess ourselves.

White, Nancy. *Digital Habitats: Stewarding Technology for Communities* (blog). August 13, 2009- April 2, 2010. <http://technologyforcommunities.com/>.

Blog kept by the co-author of *Digital Habitats: Stewarding Technology for Communities* co-written with Etienne Wenger and John D. Smith. White chronicles technology mentoring in different situations by interviewing technology stewards and discussing the use of technology in schools as well as the interactions between the people involved in CoPs. The use of different technologies and challenges met in these interactions are analyzed.

Winton, Pam and Megan Ferris. *Communities of Practice Indicators Worksheet*. FPG Child Development Institute, 2008. <http://ici-bostonready-pd-2009-2010.wikispaces.umb.edu/file/view/communitiesOfPractice.pdf>.

Worksheet of questions used to analyze CoPs according to desired, emerging, and current realities. Questions are arranged into membership, process/activities, and outputs/outcomes with subdivisions in each section to analyze each defining aspect of CoPs.

World Bank. "An Overview." *World Bank Public Sector and Governance*. Last modified 2011.

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPUBLICSECTORANDGOVERNANCE/0,,contentMDK:21552798~menuPK:286310~pagePK:148956~piPK:216618~theSitePK:286305,00.html>.

Description of the World Bank's Public Sector Governance, which was created as a part of a 1997 plan for five major thematic networks within the organization. The Public Sector Group is a part of a development of thematic groups, professional development training, quality enhancement, and product innovation. The goal of this action was to build effective and accountable public sector institutions. This group has also partnered with other major regional development banks to form various working groups.

World Bank. "About the Toolkit." *World Bank Advisory Service Toolkit*. Last modified 2004.

<http://info.worldbank.org/etools/docs/library/152401/about.htm>.

Describes the services provided by the World Bank's Advisory Service Toolkit. The Toolkit was created to share advice regarding the development of Advisory Services for knowledge management and contains resources and information on the system's performance, function, technology, and lessons learned.

Wubbels, Theo. "Do We Know a Community of Practice When We See One?" *Technology, Pedagogy, and Education* 16, no. 2 (July 2007): 225-233.

Discusses CoPs in relation to schools and the conduciveness to teachers forming CoPs. It suggests that combining the theories behind CoPs and learning communities would be beneficial to teacher education as it would create a stronger focus on teaching and theory. The character of CoPs as well as a lack of reflection in teacher education drives Wubbels to call for future research in this area.