# Encyclopedia of Information Science and Technology, Third Edition

Mehdi Khosrow-Pour Information Resources Management Association, USA

Volume V Categories: Geo-Inf



Managing Director: Production Editor: Development Editor: Acquisitions Editor: Typesetter: Cover Design: Lindsay Johnston Jennifer Yoder & Christina Henning Austin DeMarco & Jan Travers Kayla Wolfe Mike Brehm, John Crodian, Lisandro Gonzalez, Deanna Zombro Jason Mull

Published in the United States of America by Information Science Reference (an imprint of IGI Global) 701 E. Chocolate Avenue Hershey PA, USA 17033 Tel: 717-533-8845 Fax: 717-533-8861 E-mail: cust@igi-global.com Web site: http://www.igi-global.com

Copyright © 2015 by IGI Global. All rights reserved. No part of this publication may be reproduced, stored or distributed in any form or by any means, electronic or mechanical, including photocopying, without written permission from the publisher. Product or company names used in this set are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark.

Library of Congress Cataloging-in-Publication Data

Encyclopedia of information science and technology / Mehdi Khosrow-Pour, editor.

pages cm

Includes bibliographical references and index.

ISBN 978-1-4666-5888-2 (hardcover) -- ISBN 978-1-4666-5889-9 (ebook) -- ISBN 978-1-4666-5891-2 (print & perpetual access) 1. Information science--Encyclopedias. 2. Information technology--Encyclopedias. I. Khosrow-Pour, Mehdi, 1951-Z1006.E566 2015 020.3--dc23

#### 2014017131

British Cataloguing in Publication Data A Cataloguing in Publication record for this book is available from the British Library.

All work contributed to this book is new, previously-unpublished material. The views expressed in this book are those of the authors, but not necessarily of the publisher.

For electronic access to this publication, please contact: eresources@igi-global.com.

### Developing Appreciative College Experience with Personal Learning Networks

#### Kam Hou Vat

University of Macau, Macau

#### INTRODUCTION

It is widely accepted today the future of the Internet is the social Web, and innovations in social computing is unlocking new opportunities for flexible and efficient learning with the support of electronic media (Hay, 2009; Neto & Brasileiro, 2007; Littlejohn & Pegler, 2007), resulting in high expectations for different electronic learning (e-learning) initiatives (Ertl, Winkler, & Mandl, 2007; Alexander, 2006). The term *e-learning*, nonetheless, should make sense only when its use reflects a new culture of learning, whose focus lies mainly on the learner rather than merely on technology itself. To this end, this article is to explore the generative potential of the emergent personal learning networks (PLNs) in college education (Richardson & Mancabelli, 2011). It starts by describing the PLN background of connectivism, providing as much student-centered experience as deemed possible. Next, it elaborates on the context of a learning university in the Internet age, deliberating on how PLNs could empower student learning. Our third item of concerns lies in the educational potential of appreciative inquiry (Cooperrider & Whitney, 2005), a change management philosophy as a lever for organization transformation through PLNs. The article concludes with some remarks of future development of PLNs, into which the integration of related Web 2.0 technologies should realize the essence of an appreciative college experience.

#### BACKGROUND

One of the 21<sup>st</sup> Century teaching and learning enhancements in higher education is the use of personal learning networks (PLNs) (Richardson & Mancabelli, 2011; Weisgerber, 2009; Nielsen, 2008). By a personal

learning network (PLN) (http://en.wikipedia.org/wiki/ Personal\_learning\_network) we mean an informal learning network of people a learner interacts with and derives knowledge from, in a personalized manner (Digenti, 1999; Tobin, 1998). In a PLN, a person presumably makes a connection with another person with the specific intent that some type of learning will occur because of that connection (http://en.wikipedia. org/wiki/Personal learning network). An important learning theory in support of PLN comes from George Siemens (2004) in his now famous article Connectivism: A Learning Theory for the Digital Age, where it is argued that learners create connections and develop a network that contributes to their professional development and knowledge. Indeed, PLNs share a close association with the concept of personal learning environments (PLEs), which as described by Martindale and Dowdy (2010), is a manifestation of a learner's informal learning processes via the Web. Moreover, it has been observed by Ivanova (2009) that different learners contribute and derive knowledge in a PLN, through individual choices of peculiar PLEs, VLEs (virtual learning environments), and relevant social media. In particular, the PLN learner chooses who to interact with in such media, and how much to participate. Oftentimes, the learner enters the PLE with certain goals, needs, interests, motivations and problems that are often presented to the people they include in their PLNs. Increasingly, PLNs are becoming an important part of professional development in various fields with different businesses creating their own e-learning content and PLEs for their employees' individual and organizational learning.

#### The PLN Theory of Learning

George Siemens (2004) provides an interesting exploration of a theory to learn that could be aligned

DOI: 10.4018/978-1-4666-5888-2.ch353

with the form of informal learning embedded in the PLN initiative (http://www.elearnspace.org/Articles/ connectivism.htm). In the article, Siemens argued that over the past three decades, technology has reorganized how we live, how we communicate, and how we learn. Identifying with Vaill (1996), who believes learning must be a way of being to keep abreast of the messy and recurring events (p.42), Siemens renders some significant trends in "connectivist" learning:

- Many learners will move into a variety of possibly unrelated fields over the course of their lifetime.
- Informal learning is a significant aspect of our experience that occurs in a variety of ways, say, through communities of practice, personal networks, and completion of work-related tasks.
- Learning is a continual process, and the tools we use define and shape our thinking.
- Many of the processes previously handled by traditional learning theories (cognitive information processing) can now be off-loaded to, or supported by technology, which is rewiring our brains.
- Know-how and know-what is being supplemented with know-where (understanding where to find the needed knowledge).

Indeed, the PLN theory of learning is concerned with our meta-skill in a networked world, to develop our ability to synthesize and recognize connections and patterns, in order to acquire the expected knowledge that is often characterized by chaos (complex patterns recognition processes).

#### The Ideas of Connectivism

In articulating his theory of connectivism, Siemens (2004) focuses on connecting specialized information sets, and the connections that enable us to learn more, are more important than our current state of knowing. New information is continually being acquired – the ability to draw distinctions between important and unimportant information is vital; the ability to recognize when new information alters the landscape based on decisions made before is also critical (http://www.connectivism.ca/). In Siemens' words, the starting point

of connectivism is the individual. Personal knowledge is embedded in the network of people, which is fed into their organizations, which in turn feed back into the network, and then continue to provide learning to individual. This cycle of knowledge development allows learners to remain current in their field through the connections they have formed. Subsequently, as knowledge continues to grow and to evolve, access to what is needed is more important than what the learner currently possesses. One working definition to make sense of PLNs is attributed to Weisgerber (2009): PLNs are deliberately formed networks of people and resources capable of guiding our independent learning goals and professional development needs. Accordingly, we need to take a look at the fundamental shifts that are fueling our capacity to connect, interact, and learn with others in these new and different ways (http://spacesforlearning.wordpress.com).

### THE CONTEXT OF LEARNING UNIVERSITY 2.0

Today, higher education institutions seeking to understand how the next generation of Internet technologies will make an impact on their students are presumably aware of the following trends (Wilen-Daugenti, 2009; Garrison & Archer, 2007): College students are rapid adopters of new technologies, devices, and applications; Web 2.0 technologies enable easier access to increasingly credible education content and online expertise, rendering a venue for contributing and sharing knowledge regardless of location; Internet videos have increasingly high adoption rates and become a key medium in education; mobile learning and gaming is rising, with students taking more responsibility for their own learning; information and technical literacy are critical to remain relevant in the working world, with more students who are ready to bring in newer technology and learning expectations, already evolving into the generation characterized by being visual, versatile and virtual. Undeniably, our learning environments are a way for higher education institutions to address the ever-growing number of technology trends (Garrison, 2004) that are rapidly becoming available to and used by students. More importantly, a facilitative learning environment should give students a range of educational resources from which to choose, while

not hampering the education system already in place. With Web 2.0 (Alexander, 2006; O'Reilly, 2005), the Internet is opened on a social level where individuals are able to edit and add to the online information space (Anderson, 2007), making the Web an environment for collaborating and exchanging thoughts and ideas. It is believed that the social aspects of these audiencecentered technologies should offer great potential for building a PLN community in the context of college teaching and learning, that can be named *Learning University 2.0*.

#### **Rethinking Learning the PLN Way**

Stephen Downes, a senior researcher for Canada's National Research Council, does a great job in presenting the picture (Downes, 2010):

We need, first, to take charge of our own learning, and next, help others take charge of their own learning. We need to move beyond the idea that an education is something that is provided for us, and toward the idea that an education is something that we create for ourselves. It is time, in other words, that we change our attitude toward learning and the educational system in general.

Indeed, the most powerful aspect of what is happening now in higher learning is that students have a choice in how they learn, which resources they use, and where they obtain the knowledge they need to be successful academically. Yet, where are we today in terms of college education? Have we not seen classrooms run by an expert adult who can manage the successful completion of the curriculum by a large class of students, semester after semester? Course instructors often mete out knowledge in discrete parts, carefully monitoring students' progress through one-size-fitsall assessments, deeming them educated (pass) when they have proven their mastery at, more often than not, getting the right answer and, to a lesser degree, displaying competency as in reading, writing, and/or oral communications. In this regard, the essential questions of interest include: What happens when it is easy to connect our passion to learn to the resources to learn it? What happens when almost everyone gains access to these profoundly different learning spaces filled with teachers and content through devices students carry

in their pockets? What happens when we do not need schools to manage the delivery of content anymore, when we can get it on our own, anytime, anywhere and from anyone connected?

With PLNs, we have to find a way to rethink learning, most policymakers, educators, and parents have yet to demand. In other words, we have to find ways to bring networked learning opportunities into our classrooms even while many of the traditional expectations for college education remain in place (Richardson & Mancabelli, 2011). The challenge is to introduce our students to a whole new method of learning that is less about memorizing and more about knowledge creation and collaborating with others, and doing so in the context of their passions. In this 21st Century, we have to make sure that our students are fully equipped with the new skills and literacies that we have yet to find a better way to measure. Besides, we have to ask our teachers to learn in different ways than how they learned in the past, in order to better deliver these new skills and literacies to the students in their classrooms. It is firmly believed that teachers in the classroom can exercise enormous influence over the skills their students learn and the methods they use, while still delivering a rigorous and quality curriculum.

#### Managing Resources through PLNs

In the past, college learning resources were limited to a physical classroom with books/notes and professors on a college campus. For many those resources were all that was available; learning was limited to what the professor could bring into the classroom or what the library had on its shelves. Examples include: class speakers, notepads, notebooks, textbooks, newspapers, paper journals, face-to-face classes, physical labs, or physical sites (museums), and many others still existing and used today. Yet, with the advent of Web 2.0 and the PLNs, we see additional resources becoming available for learners today, and we see how learners given access to the Web, could have an abundance of resources from which to choose or with which to customize their learning. Leslie and Landon (2008) remind us of the variety of formats to support student learning online. For example, social book-marking applications can be used to share personal collections of Web-based resources to complete group projects. Web blogs can facilitate student self-reflection and

Η

peer review of course assignments. Students can use wikis to collaboratively summarize course discussions, refine research papers or even co-create online books. Social networking applications such as Facebook can be used to extend the boundaries of the classroom to create online communities and discussions or debates that include past students, potential employers and subject matter experts. Audio, graphic and video files can now be created and shared through social media applications such as Flickr and YouTube. These files and other data sources can then be recombined to create new meaning and interpretations by using mashup applications such as Intel's Mash Maker. Besides, VOIP (voice over IP) technologies, such as "Skype" allow students to communicate and collaborate outside of the classroom. Virtual world applications such as Second Life provide opportunities for rich synchronous interaction in 3-D immersive worlds to support collaborative and creative project work. A key point in the Web 2.0 learning environment is that learners can pick resources according to their own learning styles and preferences. Today, there is enough flexibility and choice available to make this possible (Ormiston, 2010; Solomon & Schrum, 2010).

#### Personalizing Student Learning with PLNs

Undoubtedly, today's students can be much more in control of their own learning (Stevens, 2009; Cross, 2006) because of the connections they can now make on the Web. College students need to learn how to make connections with others online, how to negotiate the interactions between them, how to collaborate with them in ways that go beyond just sharing existing information to the creation of new knowledge, and how to perhaps even change the world. With PLNs, the rich set of connections students can make to people in both their online and offline worlds can help them with their learning pursuits. Such PLNs change the game of learning by allowing students to create their own global classrooms and collect teachers and other learners around the topics they want to learn about. PLNs allow students to self-direct their learning in exciting new ways if students were able to leverage their potential. Thereby, the design of student learning experience in the PLNs is to develop their ability to generate problems, to engage in collaboration, to appreciate multiple perspectives, to evaluate and to actively use knowledge through:

- 1. Enabling students to determine what they need to learn through questioning and goal setting: Students should work to identify their knowledge and skill deficits, and to develop strategies (personal learning goals) for meeting those deficits. They should learn to relate what they know to what they do not know and ask questions to guide their quest for new knowledge. The emphasis is to foster a sense of student ownership in the learning process. If teachers, through their PLNs, can guide the students in the identification of what they already know and what they need to learn, then knowledge gaps and mistakes can be viewed in a positive way such as another opportunity to learn. And students can assume more responsibility in addressing their own learning goals during any instructional unit or transition of growth.
- 2. Enabling students to manage their own learning activities: Students should be enabled to develop their learning plans, which should describe priorities, instructional tactics, resources, deadlines, roles in collaborative learning situations, and proposed learning outcomes, including presentation and dissemination of new knowledge and skills, if applicable. Traditionally, these instructional events are arranged by teachers to be followed by students throughout a semester or school year, in order to accomplish a specified set of pre-determined learning or assessment objectives. Yet, such an approach is not advantageous for students to learn to take their initiative. To manage their own learning, students must be guided and supported in their PLNs, slowly developing more and more competency for their own learning.
- 3. Enabling students to contribute to each other's learning through collaborative activities: Students should be motivated and supported in discussing and sharing information. Particularly, students should become designers of the courseor program-related learning outcomes through evaluating and refining the entries their peers put into their PLNs commons (course/program/ school). Collaborative learning seems appealing to achieve that purpose; however, it involves not

just creating a group and then dividing up the work. Students must be educated to recognize what they are trying to learn in communities or teamwork, value it, and wish to share that value with others. Teachers can provide this sense of accountability by structuring the community or group work to include both individual and group assessments.

Unquestionably, such a shift to learner-centered education is a huge opportunity. Schools and universities can do more than remain relevant: we could become even more important in our students' lives, if we were willing to rethink our role in these contexts. Success will not happen overnight; however, our college learning has to begin to move in these directions, toward enabling every student to self-direct his or her own learning and make sense of the complexities and opportunities presented by PLNs. It is a huge task, but it all starts with understanding how such networks work. George Siemens emphasizes that our connections to one another and to relevant content in a global context are absolutely essential to becoming educated these days. These passion-based connections through PLNs help us create knowledge together, testing theories and ideas, collaborating on solutions or actions, and sharing back most everything we learn in the process. It is a very transparent process that is increasingly the expectation for our students' meaningful learning in higher education.

#### FUTURE RESEARCH DIRECTIONS

## Personal Learning Networks through Appreciative Inquiry

Most people who work with educational reform projects are aware that the facilitators of the reform are learners themselves, not only of the process of implementation but of its content. The same reasoning applies to the use of PLNs to promote student learning and/or to engage teachers in collegial inquiry about student work as a means of improving their practice and student learning (http://wallacefoundation.org). The big idea of an appreciative form of such an inquiry – appreciative inquiry (Cooperrider & Whitney, 2005), is for project participants to discuss their work, identify their problems and challenges, and reflect on their roles and experiences about their practice through the examination of their students' work. In the context of PLNs, exercising appreciative inquiry involves this simple idea: There is now a convenient connection between a person's passion to learn something and the resources to learn it. It is called a network, and it needs to be a part of any literate adult or student life. In order for our students to become literate, technology will have to become part of our learning culture. Just like paper and pen, a device and a connection are required tools for our learning trade now: namely, we each need to work to make the Web and our PLNs an integral part of our learning/teaching practices.

## Exercising Appreciative Inquiry for PLNs

According to Thatchenkery and Chowdhry (2007, p.33), "To be appreciative, we must experience a situation, accept the situation, make sense of the situation (pros/ cons), and do a bit of mental gymnastics to understand the situation, with an appreciative lens. Not only that, the appreciative lens that we put on the situation impacts our next experience as well." Tellingly, PLNs are obviously not a one-size-fits-all solution that works for each school in the same way. PLNs are powerful mostly because they could serve a variety of learning goals. In this regard, what would our schools and colleges look like if everyone from presidents to classroom teachers embraced their learning networks? Do schools and colleges adopting PLNs have some things in common that result from the transformational power of these tools? Richardson and Mancabelli (2011, p.27) have provided some pointers for our inquiry with PLNs:

• Students are better prepared for life and work in the 21<sup>st</sup> century through PLNs: Tony Wagner (2010) defines seven survival skills to be acquired by our students, in his book *The Global Achievement Gap*. It is firmly believed that students' participation in their PLNs should give them ample opportunity to practice these seven survival skills. In particular, the teachers and students with whom they interact online should increase the diversity of their ideas and make them better prepared to collaborate globally or locally to solve problems together. In short, PLNs serve as a gateway to learning many of the skills students need in life and work.

- Classrooms are more engaging through the construction of PLNs: The construction and use of PLNs give students and teachers the opportunity to learn from people across the globe. In fact, through PLNs, students are able to approach challenges from a different angle, particularly through accessing information and other teachers that can enhance their understanding and meet their personal needs (Weisgerber, 2009). Our classrooms should become intersections for people and ideas as they are filled with a flow of information and conversations from around the world.
- Students are made responsible for their own learning through PLNs: As students learn to build their PLNs and manage them over time, they are obliged to learn to learn in the Internet age. Through interacting with experts from around the world, students can approach their curriculum from different angles and with different teachers, and they have the opportunity to receive real feedback on real issues, which should increase the frequency and the diversity in their assessments (Johnson, Levine, Smith, & Stone, 2010, pp.3-4).
- Instruction is more individualized through PLNs: Students who participate in their PLNs begin by sharing resources from around the world, but over time they should personalize their networks with the information and people that help them the most. This approach works when working on their college curriculum, or simply pursuing their personal passions.

#### CONCLUSION

Conceiving an appreciative college experience in the context of personal learning networks (PLNs) is a future-creating purposeful, open and disciplined inquiry. People who conceive a PLN engage in design in order to create and implement a new educational system, based on their vision of what the system should be. Or, they may redesign their existing system in order to realize their own aspirations and respond to the changing conditions and expectations of the environment in which their system is embedded. Their collective purpose should aim to create a system that has a goodness of fit with their own purposes and expectations as well as those of the larger society. Thereby, when the term PLN is used, it is meant to imply a kind of inquiry. Currently most of the higher educational change efforts start with an analysis of the existing system. Problems are identified and a plan is developed by which to correct and improve the systems. Higher education systems must be forward-looking. Whatever a future generation will become as individuals and collectively as a society, they become so primarily on account of the learning experiences in their related lives. These experiences are available in a great variety of forms, shapes, and modes. They are provided formally, informally, in public and private settings, in schools, in the home, through the different media, whenever one experiences higher education. It is a central task of our higher education institutions to design such systems that will offer opportunities, arrangements, and resources for teaching and learning by which future generations will be enabled and empowered to attain their full potential and become competent in shaping their own future and developing their larger environment, say, society. An important task of this article is to articulate the PLNs conception of this related system, in the context of modern technologies, such as the Web 2.0. We may not agree on the ultimate or peculiar purpose of college education, or know what works in all cases, but at least we can sound a promising note about technology use throughout our college curriculums. That is also the aspiration behind creating an appreciative college experience of Learning University 2.0 with PLNs.

#### REFERENCES

Alexander, B. (2006). Web 2.0: A new wave of innovation for teaching and learning? *EDUCAUSE Review*, (March): 33–44. Anderson, P. (2007). What is Web 2.0? Ideas, technologies and implications for education. Retrieved 2013JUL28 from http://www.jisc.ac.uk/media/documents/techwatch/tsw0701b.pdf.

Cooperrider, D. L., & Whitney, D. (2005). *Appreciative inquiry: A positive revolution in change*. San Francisco: Berrett-Koehler.

Cross, J. (2006). *Informal learning*. San Francisco: Pfeiffer.

Digenti, D. (1999). Collaborative Learning: A Core Capability for Organizations in the New Economy. *Reflections: The SoL Journal*, *1*(2), 45–57. doi:10.1162/152417399570160

Downes, S. (2010). *A world to change*. Huffington Post. Retrieved 2013JUL28, from http://www. huffingtonpost.com/stephen-downes/a-world-tochange\_b\_762738.html.

Driscoll, M. (2000). *Psychology of learning for instruction, 2e*. Needham Heights, Massachusetts: Allyn & Bacon.

Ertl, B., Winkler, K., & Mandl, H. (2007). E-Learning: Trends and future development. In F. M. Neto, & F. V. Brasileiro (Eds.), *Advances in computer-supported learning* (pp. 122–144). Hershey: Information Science Publishing.

Garrison, D. (2004). Transformative leadership and e-learning. In K. Matheos & T. Carey (Eds.), *Advances and challenges in eLearning at Canadian research universities* (pp.46-54). *CHERD Occasional Papers in Higher Education*, 12, University of Manitoba.

Garrison, D., & Archer, W. (2007). A community of inquiry framework for online learning. In M. Moore (Ed.), *Handbook of distance education*. New York, NY: Erlbaum.

Hay, D. (2009). A survival guide to social media and Web 2.0 optimization: Strategies, tactics, and tools for succeeding in the social Web. Austin, TX: Dalton Publishing.

Ivanova, M. (2009). From personal learning environment building to professional learning network forming. In *Proceedings of the 5<sup>th</sup> International Scientific Confer*ence in *E-Learning and Software for Education*, 9 (10). Johnson, L., Levine, A., Smith, R., & Stone, S. (2010). The 2010 Horizon Report. Austin, TX: The New Media Consortium. Retrieved 2013JUL28 from http://www. nmc.org/pdf/2010-Horizon-Report.pdf.

Leslie, S., & Landon, B. (2008). Social software for learning: What is it, why use it? Report for The Observatory on Borderless Higher Education. London, UK: OBHE.

Littlejohn, A., & Pegler, C. (2007). *Preparing for blended e-Learning*. New York: Routledge.

Martindale, T., & Dowdy, M. (2010). Personal Learning Environments. In G. Veletsianos (Ed.), *Emerging Technologies in Distance Education* (pp. 177–193). Athabasca University Press.

Neto, F. M., & Brasileiro, F. V. (2007). *Advances in computer-supported learning*. Hershey: Information Science Publishing.

Nielsen, L. (2008). 5 things you can do to begin to develop your personal learning network. Lisa Nielsen – The Innovative Educator. Retrieved 2013JUL28 from http://theinnovativeeducator.blogspot.com/2008/04/5things-you-can-do-to-begin-developing.html.

O'Reilly, T. (2005). What is web 2.0. *O'Reilly Network*. Retrieved 2013JUL28 from http://www.oreilly.com/ pub/a/oreilly/tim/news/2005/09/30/what-is-web-20. html.

Ormiston, M. (2010). *Creating a digital-rich classroom: Teaching and learning in a Web 2.0 world.* Bloomington, IN: Solution Tree Press.

Richardson, W., & Mancabelli, R. (2011). *Personal learning networks: Using the power of connections to transform education*. Bloomington, IN: Solution Tree Press.

Siemens, G. (2004). *Connectivism: A learning theory for the digital age*. Retrieved 2013JUL28 from http:// www.elearnspace.org/Articles/connectivism.htm.

Slavit, D., Nelson, T., & Kennedy, A. (2009) (eds.). Perspectives on supported collaborative teacher inquiry. New York, NY: Routledge.

Solomon, G., & Schrum, L. (2010). *Web 2.0: How-to for educators*. International Society for Technology in Education, ISTE.

Stevens, V. (2009). Modeling social media in groups, communities, and networks. *TESL-EJ*, *13(3)*. Last accessed on 2013JUL28 from http://www.tesl-ej.org/wordpress/issues/volume13/ej51/ej51int.

Thatchenkery, T., & Chowdhry, D. (2007). *Appreciative inquiry and knowledge management*. Northampton, MA: Edward Elgar. doi:10.4337/9781847204455

Tobin, D. R. (1998). *Building your personal learning networks*. Retrieved 2013JUL25from http://www.tobincls.com/learningnetwork.htm.

Vaill, P. B. (1996). *Learning as a way of being*. San Francisco, CA: Jossey-Blass Inc.

Wagner, T. (2010). *The global achievement gap: Why* even our best schools don't teach the new survival skills our children need – and what we can do about it. New York, NY: Basic Books.

Weisgerber, C. (2009). *Empowering students through personal learning networks*. Retrieved 2013JUL28, from http://www.slideshare.net/corinnew/empow-ering-students-through-learning-networks | Podcast from http://audio.sxsw.com/2011/podcasts/EDU/ EmpoweringStudents\_Weisgerber.mp3

Wilen-Daugenti, T. (2009). edu: Technology and learning environments in higher education. New york, NY: Peter Lang Publishing, Inc.

#### ADDITIONAL READING

Bingham, T., & Conner, M. (2010). *New social learning*. Alexandria, VA: American Society for Training & Development.

Downes, S. (2012). *Connectivism and connective knowledge: Essays on meaning and learning networks*. National Research Council of Canada. Last accessed on 2013JUL28 at http://online.upaep.mx/campusTest/ ebooks/CONECTIVEKNOWLEDGE.pdf.

Garrison, D. (2006). Online community of inquiry review: Understanding social, cognitive and teaching presence. Invited paper presented to the *Sloan Consortium Asynchronous Learning Network Invitational Workshop*, Baltimore, MD, August. Loertscher, D. V., Koechlin, C., & Zwaan, S. (2011). *The new learning commons: Where learners win (2e)!* Sake Lake City, Utah: Learning Commons Press.

Richardson, W. (2010). *Blogs, wikis, podcasts, and other powerful Web tools for classroom, 2e.* Thousand Oaks, CA: Corwin Press.

Siemens, G. (2008). *Learning and knowing in networks: Changing roles for educators and designers*. Last accessed on 2013JUL28 from http://itforum.coe. uga.edu/Paper105/Siemens.pdf.

#### **KEY TERMS AND DEFINITIONS**

**Appreciative Inquiry:** An inquiry paradigm concerning the co-evolutionary search for the best in people, their organizations, and the relevant world around them. In its broadest focus, it involves systematic discovery of what gives life to a living system when it is most alive, most effective, and most constructively capable in economic, ecological, and human terms.

**Appreciative College Experience:** A learnercentered student nurturing practice based on the essence of whole-person education, emphasizing the holistic development of a person including various aspects such as intellectual, physical, social, moral, and spiritual development of students, especially in higher education.

**Connectivism:** Learning, defined as actionable knowledge, can reside outside of our persons (say, within an organization or a database), and it is focused on connecting specialized information sets. The connections that enable us to learn are perceived to be more important than our current state of knowing. Besides, our decisions to synthesize and recognize connections and patterns are based on rapidly shifting foundations. New information is continually being acquired – the ability to draw distinctions between important and unimportant information alters the learning landscape based on decisions made before is also critical.

**Personal Learning Environment (PLE):** An electronic environment developed by individuals to make use of Web and mobile technologies to organize online various learning/knowledge assets, services, and activities for the convenience of learning and transfer

among people in the form of learning communities. PLEs are also referred to as PLNs sometimes.

**Personal Learning Networks (PLNs):** PLNs are deliberately formed networks of people and resources capable of guiding one's independent learning goals and professional development needs.

**Personalized Learning:** An personal development scheme to encourage individual's online participation of learning activities, say, in the context of higher

education institution (university) where individual students and teachers need to participate online to individualize, facilitate, encourage, and empower student learning online.

**Web 2.0:** This term was coined to describe web sites that use technology beyond the static pages of earlier web. It is closely associated with Tim O'Reilly because of the O'Reilly Media Web 2.0 conference held in late 2004.