

Computer-Assisted Language Learning: Learners, Teachers and Tools is an examination of contemporary issues related to learners, teachers and tools in computer-assisted language learning (CALL) environments. It explores the interrelationship among the three components of CALL and presents the findings of recent work in the field of CALL.

As the third volume of the *Asia-Pacific Association for Computer-Assisted Language Learning (APACALL) Book Series*, this book is a significant contribution to CALL communities. It offers great opportunities for readers to engage in discussions on CALL research and practice and provides a valuable resource for applied linguists, researchers, language teachers and teacher trainers.

Jeong-Bae Son, PhD, is an Associate Professor in Applied Linguistics and TESOL at the University of Southern Queensland, Australia. He is the President of APACALL, Director of TELLRN, Co-Chair of the GLoCALL Conference, Editor of the *APACALL Book Series* and Co-Editor of *CALL-EJ*.

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JEONG-BAE SON

Computer-Assisted Language Learning

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Computer-Assisted Language Learning

LEARNERS, TEACHERS AND TOOLS

EDITED BY JEONG-BAE SON

Computer-Assisted Language Learning:
Learners, Teachers and Tools

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Jeong-Bae Son

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Computer-Assisted Language Learning: Learners, Teachers and Tools
Edited by Jeong-Bae Son

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PREFACE

This book is an examination of contemporary issues related to learners, teachers and tools in computer-assisted language learning (CALL) environments. It explores the interrelationship among the three components of CALL and presents the findings of recent work in the field of CALL. As the third volume of the Asia-Pacific Association for Computer-Assisted Language Learning (APACALL) Book Series, it is a valuable contribution to CALL communities and offers great opportunities for readers to engage in discussions on CALL research and practice.

The book includes eight chapters peer-reviewed by independent reviewers. Chapter 1 looks into low-achieving language learners' use of self-study multimedia materials. Chapter 2 reports on a study of Japanese university students' use of computers and mobile phones. Chapter 3 deals with English as a second language (ESL) learners' needs for mobile-assisted language learning (MALL) tasks. Chapter 4 focuses on Iranian university students' use of Wikipedia for learning academic English. Chapter 5 examines Malaysian in-service teachers' experiences in developing digital storytelling. Chapter 6 investigates how language teachers apply their knowledge and skills gained from a formal CALL course to their teaching practice and professional development. Chapter 7 discusses connectivist learning in connection with teacher professional development and learning networks. Finally, Chapter 8 explores CALL practitioners' use of online tools and professional development in the field of CALL.

A collaborative effort has been made in publishing this refereed volume. I am grateful to the authors whose work appears in the book. My thanks also go to all reviewers of submitted manuscripts. In addition, I would like to thank my family for their love and support during the production of this book.

Jeong-Bae Son
May 2014

CHAPTER SEVEN

CONNECTIVIST LEARNING: REACHING STUDENTS THROUGH TEACHER PROFESSIONAL DEVELOPMENT

VANCE STEVENS
HIGHER COLLEGES OF TECHNOLOGY,
ABU DHABI MEN'S COLLEGE / CERT / KBZAC, UAE

Abstract

This chapter describes initiatives the author has taken in teacher professional development incorporating connectivist models. Participants in connected learning utilize personal learning networks to find pathways leading to collaboration around shared learning goals, using strategies that differentiate master learners from novice-learners (Warlick, 2010). When learners must adapt to jobs that have not been invented yet, teachers must help them become master learners in preparation for unanticipated future challenges. Connectivist learning enables learners to discover and apply underlying structure to their learning according to their own experience and notions of what and how they need to learn, as opposed to following a path pre-ordained by a prescriptive facilitator. Connectivist learning deals with discovering 'why' and then applying one's own schemata while exercising critical skills deemed necessary for 21st century knowledge culture. Focus is not so much on training 'how' to do particular things, but in developing approaches to learning as might be appropriate to students' future contexts. Teachers learning through connectivist frameworks might apply similar strategies in their teaching, thus introducing their students to networked learning methods that will help them in future endeavours. Teachers must experience networked learning in order to be able to direct the most appropriate affordances of networking to their teaching situations, thus widening the learning horizons of their students.

Keywords: Massive open online course (MOOC), professional development (PD), personal learning network (PLN), social media-assisted language learning (SMALL), connectivism.

Introduction

Connectivism is one of the more interesting and relevant constructs to have emerged in recent years to help explain or clarify changes in the way we have been able to learn since the turn of the century. The term was coined by George Siemens (2004). Since then, both Siemens and Stephen Downes have been prolific in writing about the concept (e.g., Downes, 2012, in his 600-page set of essays on *Connectivism and Connective Knowledge*). The body of literature inspired and referenced by those two authors provides definitive coverage of the field going well beyond the scope of this chapter, whose purpose is to describe several instances of connectivist learning that the author has initiated or facilitated in recent years. However, their work underpins this chapter, and so the basic notion of connectivism, and how this notion impacts heuristics for learning, will be explained in this introduction. This chapter will go on to explain how connectivist learning must be experienced to be understood, and how teachers are finding ways to learn from one another through their networks, and in so doing positioning themselves to be able to help their students become effective connectivist learners.

One thing to understand about connectivism is that it is about the process of knowledge formation, a process which itself involves participants in networks coming together to discuss and develop their ideas. Much of the discussion in the networks that revolve around the work of Siemens and Downes is directed at fine tuning what connectivism is, even what kind of thing it is, so that how we perceive the term becomes itself an example of negotiation of connectivist knowledge. In his seminal article, Siemens (2004) called connectivism a "learning theory for the digital age". Downes (2005), however, avoids calling it a theory; for example, in his introduction to connective knowledge, he says "connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks." Downes (2014) clarifies this position, while showing first how a number of theories are "actual learning theories", and says, "Connectivism essentially collects these theories together into a single package as a mechanism for explaining how connections are formed in a network." He also states that "a connectivist sees learning very differently from those who follow other theories."

Duke, Harper, and Johnston (2013) further encapsulate the give-and-take as to whether or not connectivism is a theory.

Whether the concept is a thesis or a theory is less important than the fact that debate over this issue is itself an illustration of what connectivism is, a process of constructing knowledge through connectivism in action. The critical reader may say that there is nothing new about arriving at knowledge or in sharing information with colleagues in formulating a theory or thesis (anyone who reads *Origin of Species* will be struck by the huge number of specimens that Darwin (1859) was able to acquire from colleagues around the world, birds' feet with seeds and microorganisms borne within, for example, which provided invaluable data in helping him corroborate his own thesis which he had developed in early sailings on the *Beagle*). In order to appreciate what connectivism seeks to address, it is important to note certain significant ways in which the world of knowledge formation has changed since those days, and especially since the advent of Web 2.0 at about the turn of the century.

In his audio introduction to the Connectivism and Connective Knowledge MOOC, Siemens (2008) points out several important differences between what we find now, as opposed to the world in which Darwin and other great thinkers and researchers found themselves before the transition from the 20th to 21st century, noting that connectivism is "obviously not" new and that learning networks are "implicit to humanity". Through technology, however, it is now possible for anyone to participate in the creation and sharing of content in such a way that there results "a climate of abundance". By the same token, technology has brought us an increased ability to dialog with others, which results in a complexification of opinion of every conceivable viewpoint, such as the discussion over whether connectivism is a theory or a thesis. Finally, it has become possible to simulate experiences not possible prior to the development of technology this century; for example, virtual worlds like Second Life or mashups of documentary material with Google Earth that enable the enlargement and expansion of our experiences through online technologies. Siemens's (2008) sums up thusly: "The information world that we inhabit has become so overwhelmingly complex with such an abundance of information that the networks that have existed throughout all of humanity suddenly become increasingly prominent because we are now using those as the very means of surviving in our complex information climate."

Siemens's (2004) notion of connectivism provides us with a framework for understanding how we learn in such a climate as it is evolving in the digital age. Given that knowledge is essentially networked

and distributed, and that our experience in learning is in forming new neural, conceptual, and external networks, connectivism suggests how this occurs in complex, chaotic, and shifting spaces increasingly aided by technology.

In school systems in developed nations across the world, educators are rethinking ways we approach schooling given these fundamental changes in the way that people acquire knowledge in an increasingly digital age. Warlick (2007) gave a keynote in which he said that kids derive "power" from their networks that sets them apart from others across the digital divide. He described how his children learn through their networks in ways much different from when he was young (when he went to college, he said goodbye to his high school friends; his kids never said goodbye to theirs, with whom they continue to share enriching learning experiences in always-on online spaces connected with school and play). He speaks passionately about how wrong it is to cut kids off from their networks when they are in school: "We want our children to be the students we want to teach rather than teaching the children who they are, and this is an insult to our children."

In his book *Why School?* Richardson (2012) discusses how educators can most appropriately cope with the abundance of connectivity and content that Siemens describes, in an era where scarcity is the norm in many brick and mortar educational settings. Richardson argues that the answer to coping with scarcity is not to try to perform in the old way better (that is, using *smarter* technologies to scale up re-tread methodologies), but to perform differently. Yet educators whose experience with school is rooted in an era of scarcity are poorly equipped to grasp the concept of *different* in a world of abundance. To paraphrase Toffler (1970), who in turn noted that he was drawing from a conversation with Gerjuoy (cited in Toffler, 1970), it is not that future illiterates will not read or write, but that they struggle with teaching themselves how to learn, unlearn, and relearn. Accordingly, Richardson articulates six steps to help teachers relearn their trade (paraphrased as follows):

1. Share everything (or at least something)
2. Discover, don't deliver, the curriculum
3. Filter and interact with others in your personal learning network
4. Be a master learner
5. Do, and have students do, authentic work, for real audiences
6. Reallocate the power to drive curriculum

"Master learner" is a term coined by Warlick (2010) and Richardson's (2012) adopting it in his book is a tribute to their both interacting in

mutual overlapping connectivist networks. To elaborate on what a master learner is, Downes (2007) in his keynote presentation for the Webheads in Action Online Convergence that year characterized the roles of teachers and learners as being respectively “to model and to demonstrate” and “to practice and reflect”. Master learners could be seen as doing all of these things in an iterative manner. That is, by doing these four things as a matter or course in one’s workflow, master learners are constantly learning in order to teach, and teaching in order to learn.

This characterizes how educators negotiate knowledge in a world that is connected but seen to be in flux, and is relatively chaotic compared to one in which our parents grew up, where it was often possible to learn trades entailing a stable body of knowledge that might last one’s lifetime. Our generation must now consider what teaching methods best address the likelihood of having to relearn trades many times in one’s lifetime. Fisch and McLeod (2006-2011) include this factoid in their Internet meme *Shift Happens*: “We are currently preparing students for jobs that don’t yet exist using technologies that haven’t been invented in order to solve problems we don’t even know are problems yet.” Similarly, Thomas and Brown (2011) suggest in *A New Culture of Learning* that teaching a man to fish is helpful only assuming fish stocks last and that radically new techniques for catching them will not be required in his lifetime.

Therefore, to bring this discussion to bear on the thesis of this chapter, having argued that learning in an era of abundance and ambiguity can best be achieved by heightening connections between learners, we will see that

- learning in such a climate will be geared toward personal sensemaking more so than directed at a prescribed body of knowledge
- connectivist learning is ineffable in that understanding it entails engaging hands-on with other connected learners, and
- in order for teachers to impart the heuristics for such learning to students, they have to have practiced connectivist learning themselves.

Overcoming Isolation

Not so long ago, teachers, while not exactly monks working alone in cloisters, were relatively isolated compared to as they are today. They were only gradually breaking out of this at the turn of the century, a time we now know we went from what Lessig (2004) has characterized as the read-only century and headlong into the read-write century, what is more

commonly known as Web 2.0. In the Wikipedia article on Web 2.0, DiNucci (1999) is credited with first pointing out that “the first glimmerings of Web 2.0 are beginning to appear,” although Tim O’Reilly is generally credited with coining the term, from the Web 2.0 conference he convened in 2004 (and whose company almost sued Tom Rafferty in 2006 for co-opting the term they had registered as a ‘service mark’; see Forrest, 2006). O’Reilly (2005) highlights several contrasts between 21st century affordances of Web 2.0 and those characteristic of the read-only Web 1.0. To keep this in perspective, *Time Magazine* thought this significant enough to declare “you” person-of-the-year in 2006 thanks to ‘your’ voice emanating over Web 2.0 (Grossman, 2006).

The era of abundance had just begun and educators were among the early adopters. In a plenary address, Stevens (2001) mentioned teacher burnout and how the Internet was rescuing us from that by helping us overcome our “firewalls of the mind”. The conference was one of the first of its kind to stream presenters live (an early instance of open education resources being distributed for free on the Web 2.0). The plenary was delivered in Nicosia, a city with a dividing wall, and *wall in the mind* was the mental state East Berliners suffered from once their wall disappeared but they found it took longer to overcome the mindset that the wall had engendered. Recollection of isolation persists, mentioned for example in Wilden’s (2013) recent presentation at the TESOL CALL-IS and IATEFL LTSIG Technology in Teaching joint online conference. Nowadays, however, as Couros (2013) points out in the title of a recent blog post, isolation has become a “choice educators make”, no longer a predicament which they can do nothing about.

Students especially were isolated in the read-only century. Computer-assisted language learning (CALL) had been around for some time before the Internet came into play shortly before the end of the 20th century, but back then the crucial element of real interaction with other people was largely missing in language learning, whether or not technology-based. Stevens (1992) wrote a chapter on humanism in CALL in a book in which Mohan (1992) also had a chapter on communicative CALL, a study of student-to-student face-to-face interaction while running CALL software. It was hard then to conceive how computers could be either humanistic or communicative, but now we know that perhaps their greatest affordance for CALL is that they can greatly facilitate human-to-human communication.

CALL software at that time came mostly shrink-wrapped, and the first Web pages tended to be unidirectional static communicators, good ways for people to get messages out, but with no way to get messages back in.

Gradually wikis were developed as tools for getting feedback at URL addresses, and in a few short years the Web 2.0 emerged to usher us fully into the read-write century with its plethora of social media sites and tools allowing us to not only interact with one another but almost automate the process of finding what we needed to know quickly on the Web.

Many language teaching practitioners have experienced trying to learn languages from static and contrived objects when we understood that what we needed was exposure to authentic language input. The problem was that in the read-only century, it was hard to expose students not already in a country where the target language was spoken to the dynamic interaction they needed to constantly form and test hypotheses about how that language worked. Teachers of English to speakers of other languages (ESOL) were among the most active cadre of educators who were adapting the affordances of the connected Web to the circumstances of their hitherto isolated students.

Study.com (<http://study.com>) was one of the first Web sites for teaching languages person-to-person online. It was set up in the late 1990s by a teacher at Berkeley named David Winet who was using the tools at hand for getting students interacting with volunteer teachers and one another in a variety of online spaces. In the read-only century, Winet's site was used mainly to advertise and hyperlink his services, and classes were convened by email, but Winet's initiative helped us to answer one of the most important questions in e-learning of our time, the question addressed in the next section.

Why Do People Study Online?

Cross (2003) entitled a chapter in his book *Informal Learning* "People love to learn but hate to be taught." This is what we discovered when we started teaching people via email study groups in our Study.com classes at the end of the last century. These classes tended to last through a few rounds of introductory emails but tapered off quickly as the work envisaged by the teacher did not meet the social expectations of the students. It was these expectations that had enticed them to try out online spaces to begin with – not the learning *per se*, but rather social learning as conceptualized by Vygotsky (1978).

Meanwhile at Study.com, Winet had connected with a company called Coterie which was experimenting with online spaces such as Active Worlds, and who ran a Palace server where they had set up a Virtual Schoolhouse for Study.com. Winet started steering students who expressed

an interest in '3D learning' to classes organized by teachers who were meeting students in these spaces.

The author started meeting his formerly email-driven writing and grammar class at the Palace. His classes ran adjacent to another Study.com class facilitated by Maggie Doty and Michael Coghlan. Inevitably they overlapped, and eventually they merged. Their students did not seem to care what they found when they came to the Palace or what had been planned for them there. The teachers soon realized that what the students wanted was not a course with a beginning and an end but a chance to socialize and interact with native speakers and each other. In other words, the students were seeking a community, and the teachers were interested in working with the students who could help them learn how to facilitate that. The match was sustainable and grew into Writing for Webheads (<http://prosities-vstevens.homestead.com/files/efi/webheads.htm>).

Writing for Webheads

Stevens (2004) describes this course in the context of task-based learning, where a Web site was created to make a space where students could display their writing. The Web site was read-only to students, but they had other online spaces, such as eGroup (later, Yahoo! Groups), where they could post their writing. Their work and any interesting responses were transferred to the Web site, which served as a display archive. Eventually, students started sending their photos to be posted online, and their recorded voices, and all kinds of objects that revealed their personalities, and before long we had a community of over 100 users. It became possible at that time to download a plug-in to be embedded into the Web site that would allow users to speak to one another in real time (for free). It was unique at the time and started attracting teachers to online sessions.

One of these teachers was Candy Pauchnick, a wired K-12 teacher in San Diego. Through her association with Writing for Webheads, or perhaps beforehand, she connected her class with that of Yaodong Chen in Liuzhou, China, through ePals (<http://www.epals.com/#!/global-community/>). She was invited to discuss the outcome with Kevin Honeycutt on his podcast channel *Driving Questions in Education*, where she said that isolation in the classroom was "dangerous" (Honeycutt & Pauchnick, 2008). The danger is more in missed opportunity than in physical harm, but it was clear at that time that many teachers worldwide were enthusiastically leaving behind the old world of isolation, and in the process liberating their students. Yaodong's efforts at helping his students

escape isolation (a common problem in China) were reported in Stevens (2002).

There are many interesting aspects of how Yaodong and the other participants in Webheads were engaging with one another for the social interaction which only incidentally led to language learning. One such experience was reported in Stevens and Altun (2002) where Yaodong's class connected with Altun's in Turkey, to the obvious delight of the students involved. Photos taken at the respective locations and a comprehensive record of the event remain online (<http://prosites-vstevens.homestead.com/files/efi/chat2001/wfw011031.htm>).

One of the participants in that event was another Writing for Webheads member from Taiwan. Sue was planning post-graduate studies in Texas, wrote us for recommendation letters, and also got us to help her arrange her mother's visit visa to the USA (by attesting to the likelihood that her mother would return to her home country). In 2002 when the author was visiting his parents in Houston, Sue decided to drive down from nearby Bryan, and meet his family (archived here: http://prosites-vstevens.homestead.com/files/efi/sue_houston.htm). One interesting aspect of the visit was when Sue related that her friends thought she was wasting her time with the Webheads community, because, they said, it was not real. Her friends were courting isolation in their wariness of online experiences whereas Sue was redefining reality.

These instances are examples of how, in Writing for Webheads, the teachers were learning all the time about how to structure learning to meet social expectations. They were learning from the students who interacted with them how to construct communities that would promote language learning through greater opportunities to socialize in spaces with very low affective filters and where the target language was used throughout. This knowledge was applied in Webheads in Action, where teachers involved with Writing for Webheads branched out to teach one another experientially how to explore community building techniques in spaces where technology was being used online to promote greater awareness of how it might facilitate effective language learning.

Webheads in Action

Meanwhile, at the annual conferences of Teachers of English to Speakers of Other Languages (TESOL), the CALL Interest Section (CALL IS) was maintaining an Electronic Village (EV), a dedicated space on-site with computers where presenters could share and demonstrate ideas for teaching with technology. In 2001 the concept was expanded virtually into

Electronic Village Online (EVO), an online space where colleagues could meet prior to each conference to train one another in workshops lasting several weeks (Hanson-Smith & Bauer-Ramazani, 2004).

At that time the large number of teachers in the Writing for Webheads group was beginning to suppress the non-native English speakers, who became ever quieter as the natives grew more interactive. Realizing that Webheads needed to be two groups, one for students and the other for teachers, the author proposed a session for EVO 2002 called Webheads in Action (WiA) whereby it was intended to show teachers how to form communities online by managing the session as such a group (<http://www.webheads.info/>).

If WiA had not been formed through these circumstances, something similar would probably have come along very soon. At the turn of the century, WiA attracted many participants ready to discuss in a distributed space how to help each other with issues around educational technology applied to language learning. The group burgeoned from a few dozen original participants to over 1000 currently in the Yahoo! Group, but there are literally countless others interacting with the participants in many overlapping networks.

As with the student group, WiA participants enjoyed sending their photos to be placed on the portal page of the website (this was six months before Moodle debuted in August 2002 and started associating faces in profiles with postings; Facebook came later, in 2004). The photo montage of WiA participants was unique at that time and has served as wallpaper in at least two different artefacts captured from Second Life builds of that era, both available as creative commons images (<http://callcolloq-tesol09.wikispaces.com/18.+The+Future+-+Research+&+Practice> and <http://flickr.com/photos/94794165@N00/410359410/>).

Learning via Communities of Practice and Personal Learning Networks

The year after it was formed, WiA began considering itself as a community of practice, leading indirectly to several PhD dissertations, notably Johnson (2005). Influenced by the work of Downes (2005) where he characterized knowledge diffusion through groups, communities, and networks, Stevens (2009) extrapolated some of these notions to WiA, in support of the idea that communities of practice may form on the practice but they remain viable due to the community.

WiA in any event remains vibrant and viable after fifteen years in 'action'. One reason for this is that its configuration of people around the

world acting as nodes on a network remains an effective and enjoyable way of distributing knowledge within the network. One of the most satisfying take-aways is the knowledge gained by experiencing many means and modalities of interaction at a distance. In helping others experience connecting with participants, this knowledge becomes second nature (i.e., learned) so that the participants can better understand and develop the processes and in turn inculcate others.

The ineffable nature of connectivist learning

The original WiA EVO session achieved its aims through adherence to certain principles inherent in successful community formation online. First there was an existing example in Writing for Webheads and a facilitator who was able to model and demonstrate techniques that had worked in forming and sustaining that group for the participants in the new group. The second principle is that teaching drew heavily on experience and experimentation. Learning via social media is ineffable; meaning it has to be experienced in order to be understood. It is difficult to explain how it works, like trying to explain how to ride a bicycle to someone who has never seen one. Until one has seen or experienced it, one cannot 'know' it, but those who experience the process, truly engage with it, become lifelong friends and colleagues, though they have most often never met in real life.

Another principle is that communities, like a good party, require a critical mass to boost them into higher quanta. Many teachers, course designers, and administrators of learning management systems tend to view courses as having set beginnings and endings, with little correspondence between one course to the next (often deleting content at course portals and removing traces of past participants). This is indeed the model most of us have been educated in. We walk into a classroom where the work of all previous students has disappeared from the walls and bulletin boards and for all intents and purposes, the course is designed for us, and we are the only group that has ever taken it. There is a tendency for people who create online classes to restart them later with clean slates, to assume that the class will go better if its newcomers work only within their cohort and bond without interference from previous group members. This might work well, and relief from clutter might even be more comfortable for some moderators and participants, but something is also lost by not actively including previous group members in each new venture. The content in such a course will depend on its creator for renewal; whereas if

a community forms around a course, then content tends to be refreshed dynamically.

The author tries as much as possible to leverage the effects of community and network in courses the author creates. Nowadays social networks have proliferated to the extent that many of us encounter them and use them on a daily basis in several aspects of our lives. However, as in countries where mobile telephony is almost ubiquitous yet rarely exploited in education, social networking was not intuitively grasped by educators in the early days as a desirable, even necessary component, in learning. School systems throughout the world are still by and large resistant to students bringing their networks to class with them, and few teachers see the value in preserving artefacts of past students for use by new students in new iterations of their face to face or online classes.

In an interview with Tony Richards and Darrel Branson of the EdTech Crew after his keynote at a conference in Melbourne, November (2012) pointed out that classrooms can and should be communities where the work of previous students serves to model and set standards for subsequent students to emulate and improve on. There is much anecdotal evidence to suggest that students perform better knowing that work they produce will be seen by peers, or that the audience for their work extends beyond the classroom. As November put it, "Can you imagine giving every kid a laptop and not changing the audience? But changing the device? How do you reconcile that?"

It should be normal that we continue our community sites from one cohort to the next. Doing it this way might be disconcerting to some who wish to avoid clutter, but if we accept that learning is messy, if we embrace and exploit chaos and exploit chaos resolution as an opportunity for deep learning, then we tap into one of many benefits to working both individually and within a wider community.

Yet another reason for the viability of WiA is that it continues to reinvent itself in a number of connectivist learning ventures. There are four in particular discussed in this chapter. The first is the Webheads in Action Online Convergences (WiAOC), a series of three free biannual online conferences that led eventually to the second venture, an ongoing seminar series called Learning2gether. The other two are EVO sessions that have carried forward in two different directions what was begun with Webheads in Action in 2002.

WiAOC and Learning2gether

WiAOC was arguably the first online conference dedicated to language educators worldwide that was free of charge and open to anyone. It was a series of three conferences held in 2005, 2007, and 2009. Each took place over a stimulating but intensive 72 hours round the clock (Stevens, 2005). They were the epitome of connectivist learning at the time, pre-dating by a year the first K-12 Online Conference in 2006, and by two years the first of many conferences that George Siemens held for free and recorded and distributed as open resources.

As exciting as the WiAOC conferences were, they were difficult to organize and manage without funding or institutional support, so in 2010, Learning2gether was conceived as a more manageable alternative to WiAOC. This is an ongoing project where presentations are organized weekly by volunteers collaborating on a wiki. They are free for all, online, recorded, and archived at <http://learning2gether.net>. There is also an index that gives a clear overview of all presentations so far and how to access their recordings (<http://learning2gether.pbworks.com/archiveindex>). Learning2gether events perpetuate the spirit and goals of WiA and of WiAOC, and are an excellent example of teachers continuing to learn from one another how to experience connectivist ways of sharing expertise in distributed knowledge spaces. It often happens that teachers present projects with their students which are examples of how they are transferring what they learn from each other online to their blended and hybrid classroom learning ecologies.

Becoming a Webhead and Multiliteracies

The other two ventures involving connectivist learning and professional development were logical offshoots of Webheads' participation in EVO after 2002. Two tracks were pursued. One was to conduct subsequent sessions similar to the original one in order to overtly train more teachers in tools for connectivist learning, and the other track was to go beyond the original session and explore connected learning at higher levels.

In the first instance, some participants of the original WiA event went on to give sessions they called Becoming a Webhead, year after year for ten years. This group created a welcoming and creative environment for newcomers to online spaces and helped them become comfortable in the online community and learn through experience with the many tools the moderators recommended for teaching and learning online. The fact that

participants in the movement carried it forward in a format that remained true to its roots was great vindication of the success and popularity of the community, where learning was clearly being facilitated by master-learner participants and moderators who were passionate about what they were learning from and imparting to others.

However, the author took his learning journey in a different direction in an attempt to keep Webheads current with his own thinking and that of others he was following in his personal learning networks (PLNs). These were years where Facebook and Twitter were just starting to facilitate development of communities of practice, educators were learning how to augment their PLNs, and where Skype was making possible connections with people in voice and video that before would have required a long-distance phone line. Taking advantage of such tools, Lebow (2006) and Cormier (2010) were developing their Worldbridges and EdTech Talk communities, and teaching budding podcasters how to stream live audio online over the Worldbridges network (Lebow, 2006). Their recordings contributed to a huge array of podcast offerings from a worldwide network of interesting and impassioned educators.

Beginning in 2004, the author was asked to develop and implement a course in Multiliteracies for paying participants in the TESOL Principles and Practices in Online Teaching curriculum, and in 2009 he adapted the course as a free EVO session. His reasons for running the course for two groups were two-fold. First, he wanted to develop it through the challenge of having to facilitate it frequently and thus keep abreast of a rapidly evolving field. The second reason was to increase the number of participants and introduce more robust network effects into the TESOL side of the course. By running the course as a community space for two groups, there was better chance of a critical mass to stimulate the TESOL participants even though there might only be half a dozen of them. With so few participants it was difficult to get them interacting with each other in ways that are not teacher-prompted. However, with previous participants in the mix, there was more participant-to-participant interaction, and everyone learns how this works as and when it works. Here, in this chapter, we can state the principles, but teachers are convinced only when they experience them in action.

MOOCs

Massive open online courses (MOOCs) evolved as a way to draw participants to a course in large enough numbers that their interactions will achieve the critical mass required to make the connectivist experience

work. Since it is difficult to direct large numbers of people down predetermined pathways, in a MOOC, participants and facilitators must accept, and learn through resolving, some degree of chaos.

One interesting aspect of Siemens's (2011) viewpoint is the role of chaos in learning, which he says is crucial to sensemaking and wayfinding in learners. In an interview with Rheingold (2011), Siemens articulates the importance of allowing learners to encounter chaos, how making sense of chaos is crucial to their internalization of concepts meaningful to them, and how there is to his knowledge no research to suggest that linear means are better at helping learners construct knowledge over what he proposes. Siemens puts it (transcribed by the author from that interview):

I'm not aware of any research actually that says linear structure produces better outcomes than more chaotic meandering structure. Our intent, based on our theories of learning is to argue that the experience of learning, making sense of that chaos, is actually the heart of the learning experience. But if an instructor makes sense of that chaos for you and gives you all the readings and sets the full path in place for you then to a degree you are eviscerating the learner's experience because now you've made sense of them and all you've told them is 'walk the path that I've formed'. When it comes to complexity I'm a great fan of letting learners hack their way through that path and getting the value of that learning experience and that sensemaking process.

Siemens feels that a 'course' in its traditional sense can be an inappropriate approach to learning in cases where there is so much abundance of content and ambiguity in the fluidity of knowledge required to learn what the individual needs to know. Courses work only when the knowledge set is limited and can be anticipated. That is what often happens in schools but to a lessening extent in real life. Siemens and Downes responded to the conundrum in 2008 by creating a kind of 'course' that would address learning this far into the read-write century (Marques, 2013). This kind of course became known as MOOC, a massive open online course (see Wikipedia, http://en.wikipedia.org/wiki/Massive_open_online_course, and <https://sites.google.com/site/themoocguide/home> for insights into the accurate history of MOOCs). These sites note that Siemens and Downes started the first MOOC, Connectivism and Connected Knowledge, in 2008 and repeated it a year later and again in 2011. In the intervening year, Downes, Siemens, Cormier, and Kop (2010) hosted PLENK2010. As they explained in the introduction to that course (<http://www.mooc.ca/how.htm>) "PLENK2010 is an unusual course. It does not consist of a body of content you are supposed to remember. Rather, the

learning in the course results from the activities you undertake, and will be different for each person."

cMOOC vs. xMOOC

As we have seen, the original MOOCs were steeped in the notion that learning is personalized on the connections that participants make with others they network with as they explore the course. Such courses have come to be known as 'connectivist' MOOCs (or cMOOCs, such as those described at <http://www.connectivismoocs.org/what-is-a-connectivist-mooc/>). More recently there have emerged xMOOCs, a name bestowed on them by Downes (61 minutes into "Business and MOOCs" <http://youtu.be/DGaUfWkJdi4>), after Ed-X, one example of a platform supporting xMOOCs (others such as Coursera are listed at Class Central: <https://www.class-central.com/>). Siemens (2012) explains the distinction:

Our MOOC model emphasizes creation, creativity, autonomy, and social networked learning. The Coursera model emphasizes a more traditional learning approach through video presentations and short quizzes and testing. Put another way, cMOOCs focus on knowledge creation and generation whereas xMOOCs focus on knowledge duplication.

The distinction between cMOOC and xMOOC is important to keep in mind because though they share the same acronym, they are not at all the same thing; xMOOCs are like cMOOCs in the sense that they are massive and online, but they differ from cMOOCs in that they are constructed more like traditional courses, and also that they may not be so open. They are free, but the artefacts constructed around them may not be as freely available online as those for cMOOCs, which tend to make all aspects of the course freely available both during and after the course is run (Rodriguez, 2013).

MOOCs are an instance of connectivist learning gaining in acceptance among educators as they seek to filter the abundance of information they have available to them in keeping up with their practice. Stevens (2013) suggests that in addition to the points made above

MOOCs deal ... not with training how to do particular things, but in working through approaches that would enable learners to learn heuristics that might be appropriate to their future contexts. Experience with MOOCs can help teachers see more clearly what these heuristics are. MOOCs enable participants to articulate and explore individual learning strategies. This differentiates master learners from those they are employed to teach. (p. 10)

This is why MOOCs should be experienced by educators. In a recorded podcast, Fryer (2012) stressed that teachers need to enrol in MOOCs in order to understand their affordances. It is only through experience that teachers can fully appreciate how connected learning works, and only then be in position to apply this knowledge in their practice, with their students.

MultiMOOC

As the Multiliteracies course evolved, each iteration changed somewhat along with notions of what literacies were deemed most critical to survival in a highly digitized society, and in recent years the potential of learning from MOOCs has dominated how the course itself was conducted. Cormier (2010) famously delineated five steps for learning in a MOOC: *orient, declare, network, cluster, and focus*, and these eventually became the topics of the 5 weeks in the course. This restructuring led to the name of the EVO session being changed to MultiMOOC (<http://goodbyeutenberg.pbworks.com/>). This is not to say that the course itself is a MOOC (not enough participants). However, as a course that studies multiliteracies by experiencing them, it is increasingly a course that studies MOOCs.

The MOOC concept has to some extent already turned on its head the notion of how we carry out and allocate resources to education. MOOCs are powered on the affordances inherent in interaction of a critical mass of participants, who need to have well developed multiliteracies skills. Filtering skills must be employed for participants to gain meaning from instructional content that cannot possibly be directed at the individual. Individuals must thus derive meaning from their experience with that material as percolated through the community of other participants, an only limited number of whom they might interact with during the course of the MOOC. Whether xMOOC or cMOOC, MOOCs provide ample opportunity for deeper, more prolonged engagement not only with niche topics, but more importantly with others interested in those niches.

Tools such as Google Hangouts on Air now make it possible for anyone to simulcast an event, and many do, extending invitations to colleagues in a mushroom field of communities. It seems there is something of this nature going on every minute, and social media is working virally to spread the word of such gatherings among educators – Facebook, Google+, and Twitter are but a few social spaces with frequent announcements of online events and Hangouts.

Step back to a wider perspective on this phenomenon, look around you, and what you see going on every minute is networked, connectivist

learning. Open education, driven by learners connecting with other learners, is taking place around the clock, around the globe, in countless free spaces, bound only by the amount of time participants can make to engage and absorb the knowledge inherent in their networks. The possibilities this unleashes are only starting to be realized by the brick and mortar establishment (e.g., CBC The National, 2013). Not that we should quit our daytime jobs any time soon, but we should certainly rethink them.

All this has had several highly significant impacts on education so far in the read-write century. I'll list some of them:

- Open has gained acceptance with connected educators (e.g., Bonk, 2009)
- We are tending toward disappearance of isolation among teachers.
- There is a reduction in the isolation of learners as teachers apply what they learn through social networking to facilitating collaborations and interactions among students
- We are experiencing an expansion of educational opportunities for all, in particular with MOOCs
- We have gone from CALL to social media-assisted language learning (SMALL)

What has really changed noticeably is the exponential increase in the number of opportunities for interaction among colleagues. Teachers nowadays are continually modeling and demonstrating to one another. An increasing number are participating in a plethora of almost constant online events and workshops, free ones, often recorded, and extensively archived in open online spaces.

Conclusion

The question now is to what extent this interaction among teachers finds its way back into our classrooms. Many in our networks report this happening to an increasing extent. As in the case studies noted here our classrooms will change when our practice has changed, and when it has become so second nature we do not notice it. In other words, our classrooms will change when SMALL is normalized, as has happened with CALL (Bax, 2003) and in a process delineated for technological innovations in language education in general (Bax, 2011).

In adhering to the six things that Richardson (2012) says we need to do in order to relearn our practice, we might ask ourselves the following questions:

- What did we share today with a wider community of educators?
- What have we and our students discovered about the curriculum recently?
- What interactions have we had with others in our personal learning networks?
- What filters do we use to help us moderate the abundance of information we must deal with constantly?
- What functions of a master learner did we perform today?
- What work have we assigned our students for real audiences?
- Who has power to drive curriculum where we practice?

Answers to these questions can tell us how likely a teacher is to be modeling multiliteracies skills with students, and to be encouraging learners to be learning in the same way he or she does. All of these actions are modeled, demonstrated, reflected on and practiced in learning with the connectivist professional development opportunities discussed here. For change to take root, our mindsets must change so that our students can be inculcated in the same ways that we are relearning how to learn. Transformation will have occurred when it is no longer meaningful to ask such questions, when everyone does these things as a matter of course.

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CHAPTER EIGHT

LEARNING ABOUT COMPUTER-ASSISTED LANGUAGE LEARNING: ONLINE TOOLS AND PROFESSIONAL DEVELOPMENT

JEONG-BAE SON

UNIVERSITY OF SOUTHERN QUEENSLAND, AUSTRALIA

Abstract

The study reported in this chapter investigates computer-assisted language learning (CALL) practitioners' use of online tools and ways of developing their professionalism in the field of CALL. Participants in the study were members of an international association for CALL. They were invited to complete an online questionnaire on a voluntary basis. The questionnaire was employed to collect the participants' demographic information and self-reported data on the use of online tools. It also asked the participants to indicate how they keep up to date with what is happening in CALL. The results of the study indicate that the participants use web search engines, communication tools and social networking sites most frequently among twelve categorised online tools while most participants consider themselves as good or excellent users of the Internet. Many participants often read journal articles or books, read email list messages or connect with others in social networks to learn about new developments in CALL. They also regularly search the web and collect information from blog posts or email list messages. Findings contribute to our understanding of CALL practitioners' experiences with online tools and professional development activities and provide recommendations for teacher training for CALL.

Keywords: Computer-assisted language learning, online tools, professional development, Internet literacy, teacher training.