THERE AND BACK AGAIN: FROM RESEARCH METHODS TO PRINCIPLES OF LEARNING, AND EVERYTHING IN BETWEEN: CONSOLIDATED KNOWLEDGE USING THE COURSE WIKI

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ABSTRACT
A course wiki is an active environment in which students not only solve problems, but also find their own problems (Bransford, Brown, & Cocking, 1999). Wikis are novel, immersive environments requiring active participation, which enable students to build knowledge within a secure online setting (Hadjerrouit, 2011). This contribution traces a graduate student’s journey through a Master of Education program, using a course wiki as a repository for the knowledge and experiences he has gained over the course of three years. A chronological account of his progress throughout the program is showcased here as a capstone project.


My journey of working towards my Masters in Education Technology began in late 2013 when I began exploring the program at University of Ontario Institute of Technology (UOIT) and all that it entailed. Having completed my Bachelor’s in Education a few years earlier in June 2011, I was aware of the strengths of the instructors, course design, and the heavy emphasis placed on technology at the point of instruction, as well as at the point of learning. I enrolled, and have never looked back. During my MEd adventure, life has thrown me many twists and turns, challenges and successes, all while I have constructed new knowledge in wide-ranging courses and topics, including Curriculum Implementation, Diffusion of Technology, Digital Literacies, Education Law, Leadership in Education,
Makerspaces, Online Technologies, Research Methods, Web-based Learning Tools, and Principles of Learning (PoL). This wikiography acted as my swan song in the program, serving to consolidate my learning, as I have continued and continue to contribute the knowledge I have constructed to the course wiki.

In this paper, I will trace my journey through the MEd program, as I simultaneously uncover my contributions to the course wiki. It will be set in chronological order of the path I have taken beginning with my first course, and culminating with PoL. Through an exposure to my work on the wiki, it is my hope that I can showcase my learning, and in a way, justify my expenditure of time and money during the last three years.

GAINING AN APPRECIATION FOR THE WIKI
The course wiki is an active environment in which users not only solve problems, but also find their own problems (Bransford et al., 1999). This was certainly true in my case, as I sought to solve the issue of carving out a place for myself in an online environment that has been in existence for over five years. Back in September, my first days were spent creating a profile, only to realize that I would need to create a user page, if anyone were actually to see who I was and what I have done. I also discovered the countless pages pertaining to learning theories, while working to complete the introductory “Wee Wiki” task, an activity that, due to scaffolding of learning on the part of the instructor, prevented me from suffering from what Conole and Dyke (2004) termed “Information overload, usually coupled with confusion of where to look for information” (p. 114). It was after the shackles of this first assignment had been released that I was able to really dig in and contribute to the wiki, in an open-ended manner, yet with confidence, knowing its inner workings.

A detriment of the wiki concept, as reported by Wheeler, Yeomans, and Wheeler (2008) is that users tended to read only those pages to which they had contributed, which the authors of the study contended “negated the original objective of collaborative learning through content generation” (p. 993). Interestingly, for me this was not the case. Laugh if you will, but I found joy in selecting “Random page” and getting lost in the wiki, searching for one thing, and tumbling from page to page. The non-linearity of the wiki, “epitomized by hypertext and the use of the search engines, leads to the potential for different routes through, and forms of, learning” (Conole & Dyke, 2004, p. 118).

RESEARCH METHODS
My first MEd course was Research Methods and the major course task was to write a research proposal and a literature review, a page I created on the course wiki. The topic I chose, a passion of mine, was environmental education. Since no page existed on this very important subject, I decided to create one along with a page called “Research Methods”. There, I also uploaded the proposal presentation for that class, and linked the page, lest it be considered an “orphan.” For ease of access, the environmental education page is linked to other areas of the course wiki, including the page for Minecraft (Papulkas, 2014), and I created a page for Marie Battiste. As wikis are collaborative in nature, and never complete (Harasim, 2012), I added all aforementioned pages to the “Help Wanted” section of the wiki.
WEB-BASED LEARNING TOOLS (WBLTs)

My second MEd course exposed me to many learning theories, the concept of instructional design, and a plethora of online technologies. For my course summative, I built a unit around a Weebly website pertaining to First Nations education. My recall of this project brought me to the wiki entry on Weebly, and I decided to upload my WBLT sample to the web links section, after cleaning up the page by adding a bulleted list and a banner, as well as an extension to the “Applications in Education” section that reads, “It can also be used as a Web-based Learning Tool, housing teacher-created learning modules, videos, a repository of images, surveys, blogs, and other pertinent documents for students during a unit.” To gain more attention, I linked my WBLT to the Aboriginal Pedagogies page (a minor edit of course), an area I discovered while reading a wikiography paper example from winter, 2014.

My devotion to the PoL wiki has led me to some interesting pages, which have inspired me to contribute information in unplanned areas. For example, I was randomly searching the word string “teaching and technology” to prepare for a learning module for the PoL course, when I stumbled across the E-Learning wiki page. As I read through, I recalled that I had prepared a presentation on one of the seven fundamental principles, and decided to create the page Segmenting Principle in order to elaborate on the concept.

ONLINE TECHNOLOGY IN EDUCATION

During autumn of 2014, I began my third MEd course, taught by Dr. François Desjardins, who facilitated the students’ exposure to dozens of online educational learning tools and concepts, including “Badging” which I chose to research in depth. As I explored the wiki pages on Game-based Learning and Gamification, I noticed a small gap in knowledge that I knew I could fill, since no formal page on badging existed. Badging, a form of gamification, and a secondary reinforcement of behaviour (Ostashewski & Reid, 2015), is popular with many children and adults alike, both in their digital and non-digital lives. As I wrote on the page, badging is an extrinsic motivator, which has ramifications for learning. Motivation is an important concept for teachers, since it “affects the amounts of time that people are willing to devote to learning” (Bransford et al., 1999, p. 55). Since badging uses a reward system to encourage participation, it may cause a permanent decrease in intrinsic motivation for learning, which becomes an inherent risk (Zichermann, 2011).

LEADERSHIP AND TECHNOLOGY

Exactly one year after I began my Masters, I decided to shift gears and learn about leadership in education, since it is my long-term goal to pursue a career in administration. I remembered spending agonizing amounts of time trying to decide what technology I should implement as a leader of a school (for an assignment), given the countless options that exist on the internet. I chose Minecraft and game-based learning, having been inspired by a project that was made by one of my own students. His project, made using Minecraft, served to showcase his understanding of the relationship between the French fur traders and the Wendat (Huron) people. He used this “sandbox-style” game to design, from scratch, a real-life settlement.
In October 2016, I joined Dr. Janette Hughes’ Makerspace research project as a French language Translator (to ensure all materials produced were bilingual), and soon was re-immersed in the world of digital technologies, including Minecraft. This led me to the Game-based learning page (MacDonald, 2011) on the wiki, where I decided to contribute content, specifically in the “Teacher Acceptance” section, which was part of research I conducted in 2015. Due to the novelty of game-based learning, gamification, and especially Minecraft, many teachers find it difficult to keep up, and the single most important factor preventing more widespread adoption, according to Fullan and Miles (1992) was time, in every analysis of school change. This is because innovative ideas such as integrating game-based learning in the classroom can become overwhelming, complex, and complicated. Minecraft is currently one of the most popular examples of game-based learning, and I spent a considerable amount of time adding to this page, including in the sections called “Applications in Education,” “Minecraft in a classroom,” “Practical examples,” an expanded description, “Connections to Learning Theories,” and “References,” the last two of which I created myself. I cleaned up some redundancy as well, since there was an explanation for gamification in the description section, which had no place on a page devoted on game-based learning.

Lastly, I decided to add another part to the game-based learning page after reading a technology article on November 20th, 2016, to prepare for the following day’s lecture. According to Schmidt and Vandewater (2008), video games can enhance visual–spatial skills and problem-solving skills, which I found to be compelling evidence in support of this topic; therefore, I added a new section to the page: “Games and Cognition.”

**Digital Literacies**

Perhaps the area of contribution I am most proud of is my creation of the Digital Literacies page, chiefly because the bulk of the content came from completely new research I had conducted this semester, rather than the revisions, tweaking, reviewing, and re-writing I had mostly done in other wiki sections I had contributed to.

I first decided to add this topic to the site after having met with Dr. Hughes on the 21st of October, 2016 for a meeting regarding her Makerspace project. Not only was Dr. Hughes my professor in the Digital Literacies course, but that afternoon, I had also casually hit the ‘random page’ button as I was wont to do, and saw for the first time an entry on a UOIT professor (it was Dr. Roland van Oostveen). This led me to begin reading Dr. Hughes’ page description, and I honed in on the words “Digital Literacies,” copied them, then pasted them into the search bar, and voila! Nothing. I had discovered my first gap (this discovery preceded the badging gap discovery mentioned above by several weeks).

I quickly dug up my old course textbook and leafed through it until I landed on the section regarding remixing content. As can be seen on the definition page I created, to remix means to borrow the work of another in order to create something new, distinct and original (Jones & Hafner, 2012), or to rework an already existing cultural work (Lankshear & Knoble, 2008). Naturally, I linked “Remix” to the “Digital Literacies” page, and also to “Build with Chrome” a page I made to showcase an online technology that puts remixing into practice. This website offers users the chance “to do something rather than teaching
them about something,” one of the founding principles of Constructionism (Harasim, 2012, p. 71).

While populating a list of subject areas for the “Digital Literacies” page, I noticed there was no page for media literacy. Sidetracked once more, I created the page, having just completed a case study in the Principles of Learning class with several colleagues. The “Media literacy” page is a “work in progress,” and contains a definition of the term; it implies “critical thinking in assessing information gained from the mass media: television, radio, newspapers and magazines, and the Internet” (Bawden, 2001, p. 6). As with all wiki entries, there is much work to be done on the “Digital Literacies” page, and I envision this page will provide future students with ample opportunity to contribute, particularly in the “Theoretical Framework” and “Practical examples” sections. “Digital Literacies” is well-linked within the course wiki, and I have even created a “stub” page called “Digital literacy” to redirect users to the main page.

DIFFUSION OF TECHNOLOGY
I took the course, Diffusion of Technology, and examined the concept of change models on both a presentation and a final paper. During a course I took at the same time as Principles of Learning, I was reminded of Kurt Lewin’s Force Field Analysis tool (a section I created on the aforementioned theorist’s page), which can be used to analyse the implementation of an innovation by determining the factors compelling change, called driving forces, and the opposing factors, called restraining forces (Lewin, 1946). I made sure to include a diagram of the model that I found most useful.

EDUCATION LAW
Many of the courses I have taken throughout my time at UOIT have centered on content areas I believe will be important for my future as a K-8 administrator, and this includes the law course I took asynchronously May, 2016. I stumbled upon a newly created page pertaining to this topic (Harvey, 2016), and noticed it was marked as a work in progress, with one glaring and important omission immediately obvious to me. There was a need for an entry on the Ontario College of Teachers Standards, which I created. Though not a large contribution, it is still an important area of the law, as educators make hundreds of important and trivial decisions every day, and must use the code of ethics, whether they believe in them or not (Pinto, 2016). Policy, another extremely important aspect of education law, was completely missing from the main page, so I added a short sentence with a link to both Dr. Laura Pinto’s wiki page, as well as to her policy layers Weebly page. Hopefully, another user will add more information, as the call for help remains on the wiki.

Curriculum Implementation

The final course I took, alongside Principles of Learning, was regarding curriculum and its implementation. There was a unit of particular interest to me regarding understandings of power in curriculum design, and I chose to study a critical theorist named Dr. Marie Battiste to showcase my understanding. As a way to consolidate my learning, I created a page on the course wiki (Hogendoorn, 2016f). What I found most interesting about this aboriginal pedagogue is that Dr. Battiste popularized the term “decolonizing education”
and she described it as “unlearning racism and superiority in all its manifestations, while learning new ways of knowing, valuing others, accepting diversity, and making equity and inclusion foundations for all learners.” (Battiste, 2013, p. 166) These central tenets are of the utmost importance, and the latter part of the quotation somewhat superficially parallels wiki communities, since as Wheeler et al. (2008) wrote, “For many learners, wikis will be particularly appealing, providing instant, any time-any place access to a dynamic and ever building digital repository of user-specific knowledge and a voice in a live community of practice.” (p. 995)

**Original Conclusions**
I have used the wiki to consolidate my own learning, while reflecting back on past courses I have taken, including examining “products” I have made, both on my own and collaboratively. This wiki task is the epitome of learning transfer, since the knowledge I had acquired in other situations (past and present M.Ed. courses) affected my learning and performance here (Lewis, Lange, & Gillis, 2005). Although I have not completely accounted for every sentence written, photo uploaded, error corrected, link created, etc., I believe this wikiography has sufficiently proven my commitment to the community of learners in which I am now a part.

These past three years have been an interesting journey, to say the least. I would remark that time flies, and it seems only fitting that my last major assignment was to contribute to a wiki, a Hawaiian word translated as “to hurry” (Wheeler et al., 2008). This overall experience of completing a Master of Education Technology degree, I have come to realize, has been at times a struggle, other times all encompassing, even to the point of infiltrating my dreams (as the course syllabus said it would), but also such an incredibly eye-opening and fruitful involvement that is sure to benefit me throughout my journey as an educator and lifelong learner.

**Looking Back: One Year Later**
A lot can change in one year. Although I have been on a 2-year leave of absence from my regular assignment, I have done occasional teaching, and have used wikis with intermediate students for Core French. We primarily used the discussion post feature, although plans are in the works for students to create wiki pages to showcase their knowledge of Québécois culture. With this particular group of students, they were apprehensive to speak the language of instruction, but once given a different outlet, were more apt to use French to convey their thoughts. Therefore, at the stage in which I used the wiki platform in class, the focus was more on getting students comfortable thinking and writing in French (using online dictionaries and engaging with the wiki and with each other after class was an added bonus).

More generally, educators in the elementary panel can use wikis throughout their academic year with their students in a myriad of ways, including but not limited to consolidation of their learning (as a capstone project in any given subject, on any topic), or in the discussion of simple topics, such as current events in Core French, for instance. Wikis truly do
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promote collaborative learning, and are easy enough to set up, administer, and assess, thanks to online applications such as Wikispaces.com.

Finally, it was important for me to keep current with this education technology tool; therefore, I have continued to be an active (though certainly nowhere near as prolific) contributor on the course wiki. Knowledge in pedagogy and in principles of learning is a bit like language acquisition, and the old saying certainly rings true: “use it, or lose it.”

REFERENCES


**Biographical note:**

**Adrian Hogendoorn** is an elementary school teacher at Walter E. Harris Public School in Oshawa, Ontario, Canada. He is currently on a two-year leave, exploring different cultures and education systems as he travels the world. Adrian’s research interests include Makerspaces and Digital Making, Environmental Education, and teaching Primary-Junior students to garden using permaculture techniques.