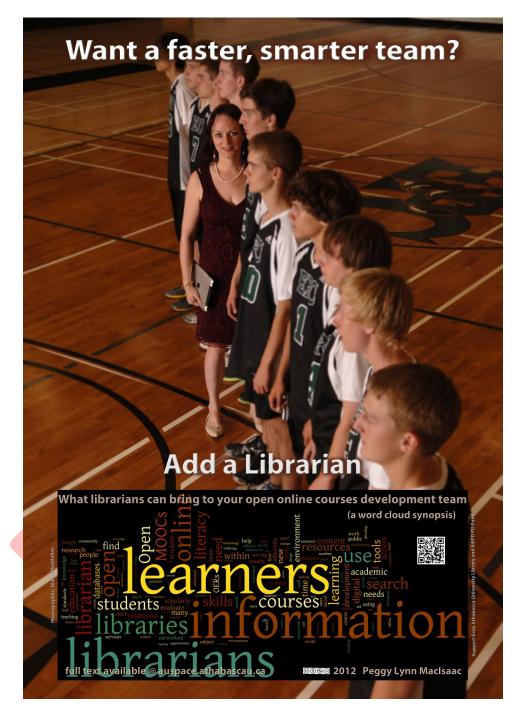# <u>Draft Paper:</u>
<u>What a librarian can bring to your open online course development team</u>

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Note to reader:

This paper was written as part of the research behind a poster presentation made to EDUCAUSE 2012 Conference. The purpose of the work is to encourage the audience to consider working with a team player who might not have been on their list of first round draft picks. This also explains the peppering of sports clichés throughout the paper. In the connectivist spirit demonstrated in MOOCs, this work in progress is shared widely inviting feedback to inform the final draft.

Backgrounder

Research for this paper is drawn from literature pertaining to Open Online Courses (OOCs), as well as adult distance education, information literacy, and academic librarianship. An OOC, pronounced as if it were one word, is a course that is delivered online; has an open enrolment of no perquisites, registration fees, or residency requirement; and open participation as the work done in the course is shared for all to learn in a networked environment of the Internet. A MOOC is a massive open online course. The term OOC and MOOC will be used throughout the paper, seemingly interchangeably. This is not meant to imply that they are the same, but rather to acknowledge that research for this paper is drawn from literature on either. Research will also draw upon my personal experience as a learner in a MOOC and as an academic librarian serving in-person and distance learners for several years.

Librarians Got Game

Librarians understand the unique learning environment of an open online course. Since the enrolment is unpredictable, the number of learners could be 5 or 500 or 5000. An OOC development team brings together an expertise of knowledge and management of course delivery, but educators on the team cannot be expected to maintain meaningful interactions with each learner. The courses provide the opportunity for learners to be drawn into a community of networked collaboration with other learners in the course. Learners utilize social media tools available inside and outside their course delivery environment. These tools include Adobe Connect, blogs, chats, Elluminate, emails, forums, Facebook, Flickr, LinkedIn, Moodle, podcasts, RSS, Second Life, social bookmarking, Twitter, wikis, YouTube, and others. "The underlying idea is that people are comfortable with tools they consider to be their own, and they may wish to continue to use them when engaged in learning activities" (Siemens, 2009, p. 2). The courses are a way for learners to connect, share, and collaborate using Web 2.0 tools. Ultimately, these open networked connections are the main take away from the course. Librarians currently use these tools to deliver services to learners.

Librarians understand that the networked learning environment of an OOC epitomizes student-centred learning. It is certainly one model to realize a constructivist epistemology, in which the individual constructs knowledge through personal interactions, dialogues and discussions within the learning environment. The educator creates the time and space for the "event" of the course to unfold online. As a subject matter expert, the educator also makes content of the curriculum available. Dave Cormier (2010), in his succinct animated video introducing MOOCs to a new learner ended by summarizing with, "You can choose what you do, how to participate, and only you can tell, in the end, if you've been successful, just like in real life." Nearly thirty years ago Malcolm Knowles shone light on the dysfunctional education systems based on mechanistic nineteenth century models for their inability to adapt to a "world of accelerating change" (as cited in Wilson, 1994, p. 254). Today, Sir Ken Robinson (2010) highlights in his animated video the imperative to change this factory production line model of education paradigm. Vrasidas describes the learner as the active processor of information emphasizing information management and analysis, knowledge construction, problem solving and decision making (as cited in Guri-Rosenblit, 2009, p. 111).

For the educator, OOCs present a learning environment that is not easily translated from the traditional, industrial model of education, where the learner, an often passive recipient of information, is processed through a linear set of quests for comprehension and memory to be rewarded with grades and course credits. While this transformation of education is not an easy task to accomplish for many reasons that Guri-Rosenblit (2009) aptly points out, the freedom and relaxing of standards of uniformity and sameness are crucial for large scale distance teaching in the digital age (p. 117). OOCs flourish in this changed and changing educational landscape, as they are both unrestricted and adaptable.

Pass to Me. I'm Open

Librarians have been 'open' long before it became a movement. Librarians have a long history of defending the rights of an individual to access information. Librarians fight censorship, and protect the freedom to read. Librarians, at Deming Library in Whatcom County, Washington, successfully squashed an FBI initiated grand jury subpoena to turn over the names and addresses of everyone who checked out a book on Bin Laden. The Director of Whatcom County Library System, Joan Airoldi, said, "Libraries are a haven where people should be able to seek whatever information they want to pursue without any threat of government intervention" (Zepeda, 2004, para. 6). I have worked in three academic libraries, whose main focus is to serve students, staff and faculty of the university, yet each library's service model includes serving anyone who contacts the library. The doors to the library are open to any member of the public. From within the physical library anyone can access the information in books, journals, and online

databases. Librarians continue to be active in political movements to increase access to information around the world. Librarians are key players in the open movement.

Game Changer

Librarians have always been at the forefront of helping people manage information technology change. Library users seek assistance from librarians to find and use information printed in books and journals; documented in microfilm, microfiche, maps, archival artifacts, and electronic media. I worked in academic libraries when CD-ROM access to indexing and abstract publications was first introduced on a large scale, and online public access catalogues (OPACs) were rudimentary text based interfaces. Few of these were intuitive to use. The reference service aspect of librarianship once focused on guiding people through predetermined access points within these technologies to find the information they seek. The ease with which Google satisfices, rather than satisfies, search needs of people has dramatically changed the information seeking behaviour of many learners. One could argue that this is for libraries what Christensen (2011) has defined as a "disruptive innovation" (p. 44).

The speed of information technology change in the past was at a pace that librarians could respond in a timely manner by preparing training workshops and printing pathfinder guides to help learners. The current rate of change presents a challenge of currency and online maintenance. Some authors write that this is the opportunity to move away from instruction dedicated to the detailed differences between database search interfaces and move towards a radical transformation of libraries and roles of librarians. Shank and Bell (2011) declare this changing role to be "the central challenge academic librarians confront" (p. 105).

Current Playing Field

Librarians are one of the pivotal information experts in the information age. A quick scan of the titles of jobs that librarians hold shows a significant breadth of responsibilities[1]. Within many of these broad job classifications have finer divisions e.g. children's librarian, young adult librarian, multicultural librarian, or subject specialist in the area of medicine, business, education, music, data or government documents. As advocates for the freedom of individuals to access information, librarians address the needs of a complex variety of people, through the public and the technical systems sides

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[1]Job titles for librarians include, academic librarian, archivist, author, chief librarian, circulation librarian, collections development librarian, competitive intelligence professional, computer programmer, copyright officer, data librarian, dean of libraries, development officer, digitization librarian, editor, educator, electronic resources librarian, entrepreneur, faculty liaison librarian, information broker, information centre director, information technology specialist, instructional librarian, interlibrary loan librarian, knowledge manager, literacy advocate, media specialists, mobile librarian, mobile services librarian, open librarian, outreach librarian, peer reviewer, prison librarian, professor, public service librarian, records manager, reference librarian, research specialist, roving librarian, school librarian, systems librarian, teacher librarian, teacher, technical services librarian, university librarian, and virtual librarian

of the library, as well as outside the library in classrooms, local communities, governments, and international non-governmental organizations. They do this in-person; through professional and academic publishing; and by participating in online networked communities which transcend the lines of distinction between these arenas.

Librarians assist learners to navigate licensed databases of full text articles and e-books. Because each vendor of these databases has a different search interface, much time is focused in instruction on where to click, and how to use separate databases. Learners, who are used to a Google search, find the steps to do comprehensive research within licensed databases to be cumbersome. They are overwhelmed by the need to choose which of the hundreds of academic databases they will search first. They desire to search using colloquialisms, and not controlled vocabulary such as subject headings and Boolean operators. They would prefer use one interface to search several databases at once. As Dave Pattern states in his May 11, 2012 blog post, "users should not have to become mini-librarians in order to use the library." Learners do not need to learn the jargon and technical underpinnings of how information is made available to them through their academic library. By just transposing what libraries have done with print material and card catalogues into the online environment, the access points to start research are unnecessarily restrictive.

The first significant attempt to overcome this limitation was the creation of federated search tools, where a single query would be searched in several different databases at once. Unfortunately, none optimally serve the students. Primarily, the flaws arose from the actual workings of the search. They were set up to search only a select number of databases, and return a select number of results per database. This was because each database was searched one at time, after the user had entered the search phrase. Searching more databases and allowing more results exponentially slowed the retrieval of real time search results. For the user, federated searches as compared to a Google search seem like an extremely long time to wait for results. Google has set the expectations for many learners that they can find thousands of results within a fraction of a second, and that what they need will be on the first page of results. Recent developments in web scale discovery tools have finally traversed the division between what could be described as an evolutionary innovation (Yu & Hang, 2010, p. 437) within the library to the disruptive innovation of Google-like searching. Web scale discovery tools allow a learner to enter a search phrase, without needing to know library jargon, search the widest possible collection of databases, and display results within a fraction of a second. This is because the search is not a real time search; instead, the metadata from various databases have been collected into one unified central index so the user is just searching one index.

Playing at the Next Level

When I was in graduate school and people asked what I was studying, I was struck by the number of people who responded to my answer with stunned disbelief, "You need

a Master's degree to be a librarian?!" I played up their biases and said, "Yes, and since I'm studying in Canada, I'm learning how to say "Shhhhh!" in both official languages." Perhaps these stereotypes are so engrained because we, as young children, form impressions of librarians that are hard to shake as adults. When looking at public awareness visual campaigns for librarians, I have to admit that my own profession contributes to the clichés of a grey haired librarian with glasses, pearl necklace and cardigan sweater sitting behind a solid wooden desk. Librarians have already moved out from behind that desk and have taken their game to the next level.

Here's a glimpse of what librarians bring to the game. They work with all aspects of information services[2]. Elaborating on a few of these, we see librarians have demonstrated their skills in developing and using a changing suite of information technologies, and instructing library users to find, evaluate, access, and use information effectively. Librarians are developing criteria for evaluating online resources based on the framework of traditional material evaluation criteria, which includes scope, authority, accuracy, currency, completeness, objectivity, coverage, proposed audience, format, design, cost, uniqueness, and ease of use. Ease of use in the online environment translates to considering issues of stability of URLs, connectivity, interactivity, required software, search relevancy, predictive behavior, etc. Faculty members wanting to use open education resources in their courses find that the time commitment to evaluate the resources is a barrier. Librarians have the skills to be the point person for evaluating resources.

Be Where the Students Will Be

According to the hockey legend Wayne Gretzky, "A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be" (Lyons, Lubert, & Jellous, 2010, p. 19). In the online world, librarians can deliver information literacy tools and learning opportunities to where they anticipate the students will be. Librarians know that even in face to face teaching environments students use social media and Google more than they use digital library resources. A five-year study of undergraduate students showed that the most frequent digital technologies used were the students' course websites, Google, email, and Facebook (Judd and Kennedy, 2010, p. 1569). Some responses to this have been to create a presence in the technologies currently used by students. Librarians have built spaces and avatars in Second Life as a direct means to serve learners in their chosen virtual environments. Another development many libraries have adopted is to create a library LibX toolbar. It is a toolbar that displays a search box within the student's browser window. This allows students to search a few robust library databases from anywhere on the web. Students

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[2] Librarians acquire, administer, advocate, analyze, build, catalogue, circulate, coach, collaborate, collect, communicate, create, deliver, design, develop, digitize, edit, educate, evaluate, find, fundraise, index, innovate, inspire, lead, learn, maintain, manage, mediate, mentor, network, promote, publish, repurpose, retrieve, review, serve, teach, use, and write.

can easily move from reading non-scholarly material to relevant scholarly literature. Here's how it works. Imagine a student reading a tweet or blog post referring to something unfamiliar to the student. The student can highlight the term or phrase, and drag it to the LibX search box to search that concept in a reliable scholarly database. It is a simple way to encourage scholarly research by bringing reliable library resources to where the learners will be. The beauty of this type of tool is that the library does not need to know where the student will be. Building a plugin for the student's browser window means libraries are providing the tool wherever the learner will be on the Internet.

Course Development Team Players

Librarians understand that an inappropriate translation of traditional information literacy models of instruction to the digital realm can result in clumsy, unused resources (Reinhart, 2008, p. 20). Librarians understand that learners read online material by scanning and reading in chunks. (Carlson & Everett, 2000, p. 6) Dunn and Menchaca (2010) point out that users on average spend four minutes viewing an e-book, and eight reading an e-journal (p. 475). Many authors discuss how the library's involvement in the learning management system can enhance over all learning (Date & Walavalkar, 2009, p. 53; Dunn & Menchaca, 2009, p. 470).

In traditional universities librarians can be embedded into an online course, as another resource person for students. While this level of meaningful personal interaction is not scalable to a MOOC, a librarian can create a digital presence for MOOC learners by creating tutorials to help learners find and use OER and OA sources of information effectively on line. Significant learning occurs if the learner has a meaningful connection with at least one of the following, the instructor, other learners, or the content. A perceived teaching presence, especially exemplified through course design and the type of facilitation, can have a powerful effect on student perceptions of support, inclusiveness, and overall satisfaction with the course" (Kop, Fournier, & Mak, 2011, p. 87). Librarians can help reduce the irrelevant cognitive load that Fini (2009) describes as distracting the learner's attention away from the curriculum and onto the mere use of the tool (p. 4). Making information tools more user friendly and teaching users how to effectively use them, can reduce the time spent learning to learn (Kop, 2011, p. 21). The concept of "zero learning time" is an unreasonable objective in a MOOC since the enrolment is open, the skill levels of participants is exceptionally varied. Academic librarians in open distance education institutions experience working with technology rookies who need to be talked through the steps of simple online navigation, as well as digital natives for whom this technology is ubiquitously unnoticed. Librarians have always been information tool hosts, teaching learners how to navigate and optimize their time by using information seeking tools effectively.

Fini collected results from several studies addressing distance learner dropout rates, and attributes dropout rate to the students' lack of time to filter through the information

overload (Fini, 2009, p. 9-11). Ostman and Wagner reported as early as 1987 "a lack of time" as the most commonly quoted reason by distance learners for course non-completion (as cited in Nash, 2005, para. 4). Librarians can help learners save time by improving their information literacy skills. One could argue that it is almost a measure of successful participation that many learners are creating content and sharing it with many other learners. There is so much information that learners cannot read all the posts, which leads to duplication of ideas and content shared in postings, which feeds into the information overload. Some learners feel an obligation to attempt to read and participate in all the services and environments related to the MOOC. I admit this was a frustration on my part when I first participated as a learner in a MOOC. This could be an insurmountable task given the potential number of participants. Critical evaluation is a key element in information literacy, and can be introduced to MOOC learners as strategies to filter the signal from the noise.

Librarians understand the need to create a variety of digital learning objects to offer to a wide variety of learners. In discussing integrating library resources online, Black (2008) highlights "opportunities will increase as the variety of tools in the toolkit expands" (p. 25). There are endless opportunities for new paths to excellence in e-learning through MOOCs arising from the thoughtful balance between technical efficiency and andragogical need. Kop et al. (2011) highlight concerns of equal access to learning when "the responsibility for information gathering, the validation of resources, and the learning process [is] in the hands of learners themselves… one should question if all adult learners are capable of taking on this responsibility" (p. 75). Librarians have created self-assessment tools for learners to evaluate their information literacy skills in a non-credit forum. They have collaborated with faculty members to develop for-credit assignments aimed at teaching students how to find, evaluate, and synthesize reliable sources on divisive, contentious current issues. They have built stand-alone information literacy skills modules used in courses. They have built subject specific portals for disciplines with particular information seeking needs. Through good course design librarians can contribute to providing appropriate scaffolding to encourage self-paced learning of key areas of information literacy throughout the course.

Many authors advocate for cross-functional instructional development teams to include librarians. Shank and Bell (2011) elaborate on the added value stating, "Academic institutions will benefit from the increase in intellectual capital resulting from bringing people together, with different talents and perspectives, to achieve common goals" (p. 107). Reading Downes' (2007) description of the skills needed to continue the development of open educational resources, one is struck by the overlap of this set of skills with those held by librarians (p. 41-41). Librarians have the human and technological capacities to contribute; the experience to adapt content to local requirements; and the skills to discover, research, design, teach, learn, assess, and evaluate open content in a globalized competitive context. Librarians provide professional reviews within peer communities, and provide content to Wikipedia.

Librarians work towards a digital seamlessness to increase intuitive usability of resources. Librarians have shifted their view from putting the library online, to serving learners' needs when, where, and how the learner deems appropriate. The research of Makri, Blandford, Gow, Rimmer, Warwick and Buchannan (2007) shows that people using digital library resources rely more on their understanding of other digital systems such as Google than on metaphors and analogies to the traditional library (p. 435). Librarians recognize at times we need to throw away the playbook and look at the how the game has changed.

Information Literacy: The ALA Playbook

Librarians have always instructed users to gain the skills to find and use information. Since the nineteenth century this work has had many names including library use instruction, user education, library orientation, library instruction, bibliographic instruction, and information literacy. The term information literacy will be used throughout this paper. There are various ways to quantify the objectives of information literacy. The information literacy standards referenced below are from the Association of College & Research Libraries (ACRL) 2012. They state that an information literate individual is able to:

1. Determine the extent of information needed,
2. Access the needed information effectively and efficiently,
3. Evaluate information and its sources critically,
4. Incorporate selected information into one's knowledge base,
5. Use information effectively to accomplish a specific purpose,
6. Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

Academic librarians assist the development of these skills in their patrons by the very nature of their work, whether or not they use this particular set of standards. The scalability of current information literacy initiatives from traditional face-to-face, blended, synchronous, or asynchronous online learning environments to massive open online courses (MOOCs) is a challenge since MOOCs have the potential to deliver virtual education opportunities beyond the real world limits of human educators. The need for education around the world exceeds the economic capacity to deliver the teaching in a traditional format. UNESCO[3] predicts that the global demand for higher education will expand from less than 100 million students in 2000 to over 250 million students in 2025 (Bokova, 2011, p. 2). This means that the world cannot build and staff enough new universities to meet the demand. The projected goals of open online courses are to address these needs effectively. The skills to recognize the need for information, as well as how to find it, evaluate it, and use it will continue to be pivotal to learners. Librarians are often able to develop a relationship with a cohort of learners. A librarian may be introduced as the point person for students in a face-to-face class or

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[3] UNESCO is the United Nations Educational, Scientific, Cultural Organization

online class. Students contact academic librarians for individually tailored research help via phone, email or in-person services. Alternatively, a colloquial search strategy is, "Just Google it." This is rarely accompanied by the details of how to find the actual information the individual needs. Research assistance for open online courses needs to be developed somewhere between the two models of service. Developing the right tools means making them applicable to a wide range of research needs of the self-directed learners from the novice to the expert. The information literacy skills developed in an OOC are directly applicable to the learner's online activities outside the realm of the course. It is of great value to the learners to have opportunities to develop information literacy skills to find and use OERs in a scholarly manner.

Information literacy tools used in face-to-face, blended, or online course environments are not scalable to open online courses. This is because the traditional model has a high level of personal contact due to the low ratio of librarian to students. We need a different approach based on the unique skills librarians bring to curriculum development of open online courses. Let us break down the six information literacy standards listed above to identify which skills can be transposed almost directly, and which ones will need to be transformed to better serve OOC learners.

First Play: Need It?

In a traditional course, assignments are rigidly set with an expectation that the enrolled students would complete each assignment in a specific order. The liaison librarian, who works with that subject discipline, could use the professor's curriculum to predict information needs of the students, and prepare guides, tips, or workshops for the students focusing on the most relevant resources for those particular assignments. In an OOC, the learner determines the information need. The open and flexible nature of an OOC makes it near impossible to predetermine the information needs of the learners.

As a reference librarian serving distance students in an open enrollment university, I experience a broad range of information needs from students. The scaffolding that academic librarians currently offer to students in open enrollment universities varies greatly based on the student's level of information seeking behaviour. This is even truer in MOOCs as the learner's task is self-defined rather than dictated by the course syllabus. While a MOOC is often presented as an event with a specific start and end date, the learner decides in which modules to participate, and to what degree. If a librarian is seen as a "coach," then serving students' in a MOOC means not working from a standard course "playbook."

Second Play: Find It

Opportunities to develop open information literacy skills within course curricula are challenging in the environment of MOOCs. Academic libraries often tailor support for learners' information seeking needs to the licensed resources available to the affiliated

staff, student, and faculty patrons of the university's library. Open online learners with no institutional affiliation require information seeking skills within the open movement solely. The most useful types of publications are OERs, for the learner can access, modify, and share the information freely. This encourages the learner to use the information and contribute it back to the MOOC. The next most useful type of source for MOOC participants are Open Access (OA) publications where learners can read the full text freely, and incorporate it into their own work in a manner compliant with the stated usage rights of each publication. In focusing efforts on creating broad subject related tools for finding OER and OA sources, an academic librarian can create and share open information literacy content contributing to the OER community. These new OERs would be universally useable around the world without local institutions needing to adapt them to their own context.

Third Play: Evaluate It

While the content available through OERs is increasing in quantity and quality and there is a growing opposition to the current scholarly publication practices with for-profit publishers, the academic community has not reached the tipping point of OER dominance. Librarians working with OERs often do so as an adjunct to the core of their responsibilities. This may seem like a side interest today, but it will soon be a more significant portion of their portfolio of duties. Currently, librarians help learners find, evaluate, and use material published in two conflicting publishing models, for-profit and Open Access. According to the calculations of David W. Lewis (2012), by year 2025, possibly as early as 2020, it is expected that 90% of scholarly articles will be available through Gold Open Access publications, where the articles are available freely at the time of initial publication (p. 501). In the meantime, there are new and exciting efforts to provide open online course learners with relevant information literacy skills within digital practices.

Librarians traditionally help students evaluate sources through the academic lens of peer review, journal impact factors, publisher reputations, etc. While it is easy to determine that an article on cancer in the New England Journal of Medicine is more scholarly than one in MacLean's magazine, identifying this in open resources is more difficult. The open movement presents a new environment in which to define new criteria for evaluation. Online reputation of an author can be measured by the number of followers, hits to his/her website, or views to his/her video. Unfortunately, popularity and scholarly identifying factors have migrated to separate ends of the spectrum of online reputation. Lanham describes this concern as:

> An "information-rich environment", [in which] the new currency is the awareness of the information-seekers; we are therefore witnessing the rise of an "economics of attention" in which the attention-grabbing value of any message outweighs the actual value of its meaning or intention. In this environment, "stuff" recedes in importance as "fluff" increases in importance (as cited in

Bouchard, 2011, p. 292).

This mirrors the publishing industry as popular magazines have higher circulation than scholarly journals[4]. Factors outside the virtual world performance also influence the reputation of online content, such as author affiliations with universities, governments, public interest groups, corporations, and whether or not the author has published in scholarly print sources. Acceptance by a respected community of peers is another facet to the evaluation of online content. To that end, open endeavors, such as Connexions, are creating new models for peer review online. If "open and fluid, [are] each factors in epistemological digital practices" (McAuley, Stewart, Cormier, & Siemens, 2010, p. 35), then we can anticipate traditional practices of evaluating online content will heed to new ones emerging. Librarians through the experience of collection management of print and online library resources have honed the skills of critical evaluation of material across the disciplines. Assessment of open education resources can be a shared collaborative task of librarians around the world. Belliston (2009) states that librarians have the power to influence the perception of credibility and use of OERs (p. 285).

Next Plays: Synthesis and Use It

The fourth and fifth standards are most eloquently exemplified in the full participation of the socially networked MOOC. They are to "incorporate selected information into one's knowledge base, and use information effectively to accomplish a specific purpose." Open online collaborative learning through connecting, synthesizing, creating, and sharing is a realization of the purpose of any MOOC. Being able to make sense of the often fragmented pieces of information" (McAuley et al., 2010, p. 23), through one's own knowledge base and convey this in online activities with the other learners are the core facets to a MOOC (DeSilets, 2011, p. 340; Fini, 2009, p. 2; Kop, 2011, p. 34; McAuley et al., 2010, p. 46). Learners are encouraged to utilize social networking tools that they are comfortable using. The act of making sense of information includes synthesizing information and communicating new ideas back to the MOOC community, even before the ideas are completely formed in the student's knowledge base. Some take this further to actually shift the responsibility of developing OERs from the educators to the learner. In Downes' (2007) conclusion he encourages the reader to consider rethinking the idea of producing OERs, and shift that responsibility to the learners themselves (p. 41). Arguably this is successfully demonstrated within MOOCs.

The variance of skill levels of learners enrolling in a MOOC provides the opportunity for librarians to help construct the scaffolding for learners who are novice due to low

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[4] Of the 102 titles in Ulrich's Web Global Serials Directory with circulation over 2.5 million, not one was a refereed journal. Interestingly, all but two are in print format. The highest circulating refereed journal was Communication Institute for Online Scholarship with an online subscription of 2.5 million, the second highest was international Journal of Medicine at 850,000 print subscriptions. Data collected by author September 2012.

digital skill levels or lack of familiarity with the subject content. They need the scaffolding to build confidence, self-efficacy, and competencies (Kop et al., 2011, p. 87*)*. Students need to build their online identity at times without the scaffolding of the educators. McAuley et al. (2010) describe the ongoing challenge and balance of knowing how and when to provide learner support. "The temptation to over instruct, robbing participants of independence and wayfinding, or to fail to scaffold at all, are challenges that MOOC facilitators must confront regularly in their social contract with participants" (p. 54). MOOC participation strengthens this process of sense making. The act of fully participating in networked learning embodies these two information literacy standards.

Last Play: Know Your Impact

Understanding the economic, social and legal impact of using information is the most challenging of the six standards to be supported in an OOC. Any tutorials relating to ethical and legal use need to be developed in situ. Copyright laws vary between countries. Access to information over the Internet is mediated by individual governments, or sometimes the social milieu where the learner lives. Often a university copyright officer is a librarian. In Canada, our changes to copyright have meant that more attention is being paid to this area, and we are treading carefully in the quagmire of what is legal and ethical. Currently, I work in a distance education library serving students living in over 80 different countries. We could not possibly be well enough versed in the various national laws pertaining to all relevant locations to guide students definitively through the appropriate use of materials. I remember serving a student in a country where her only access to a computer was in the male dominated public domain of an Internet café. What I could direct her to find on her own was more restrictive than having me mail her printed articles. The difference for the student was that she could open her print mail within the confines of her home away from the male gaze. Assisting MOOC learners in the use of information across cultures and under the rule of various types of governments is an extremely daunting task. Librarians can work to develop OERs pertaining to the legal and ethical issues of using information within their own context and share it with the OER community to collectively build a suite of information tutorials and guides to assist the learner worldwide.

Let's Play Ball

A report from the Canadian Association of Research Libraries in 2001 found that when librarians were included in the early stages of course planning, development or redesign they were able to integrate concepts of information literacy throughout the curriculum. Faculty members responded positively because they realized that librarians have expertise in articulating information needs, finding appropriate information resources online and critically assessing the results of an online search, all of which are key to success in e-learning (para.10). Athabasca University's collaborative practices include librarians at many levels. There is a librarian included on many of the

active course development teams, as well as many campus-wide committees addressing web development, writing support and student frontline services. I wish to borrow from the successful Nike trademarked slogan, and encourage you to Just Do It.™ Collaborate with a librarian to build a wide range of tutorials that serve individual needs. Learners will self-select what is useful to them. Build assessment tools for learners to evaluate their own information literacy skills. Provide deeper scaffolding for those learners new to the digital networked learning environment. Ask a librarian to join your team and create a new game plan for learners in open online courses.

Reference List

Association of College & Research Libraries. (2012). *Information Literacy Competency Standards for Higher Education.* Chicago, IL: American Library Association. Retrieved from http://www.ala.org/acrl/standards/informationliteracycompetency#ildef

Belliston, C. J. (2009). Open educational resources: Creating the instruction commons. *College & Research Libraries News, 70*(50), 284-303.

Black, E.L. (2008). Toolkit approach to integrating library resources into the learning management system. *Journal of Academic Librarianship, 34(6), 496-501.*

Bokova, I. (16 May 2011). Address by Irina Bokova, Director –General of UNESCO on the occasion of the UNESCO Global Forum Rankings and Accountability in Higher Education: Uses and Misuses. United Nations Educational, Scientific, and Cultural Organization. Retrieved from http://unesdoc.unesco.org/images/0019/001924/192417m.pdf

Bouchard, P. (2011). Network promises and their implications. In *The Impact of Social Networks on Teaching and Learning. Revista de Universidad y Sociedad del Conocimiento (RUSC), 8* (1), 288–302. Retrieved from http://rusc. uoc.edu/ojs/index.php/rusc/article/viewFile/v8n1-bouchard/v8n1-bouchardeng

Canadian Association of Research Libraries. (2001). *The e-learning e-volution in colleges and universities: A Pan-Canadian challenge.* Retrieved from http://ww.carl-abrc.ca/projects/e_leraning/breif_2001-e.html

Carlson, R. & Everett, D.R. (2000). Taking instruction online? In *Proceedings of the mid-south instructional technology conference.* Murfreesboro, TN: Middle Tennessee State University. Retrieved from: http:/frank.mtsu. edu/~itconf/proceed00/carlson.html

Christensen, C. M. (2011). *Disrupting class how disruptive innovation will change the way the world learns.* New York: McGraw-Hill.

Cormier, D. (2010). *What is a MOOC?* [Video file] Retrieved from http://www.youtube.com/watch?v=eW3gMGqcZQc

Date, D.A. & Walavalkar, P. (2009). Technology enhanced learning: A TCS Library experience. *DESIDOC Journal of Library & Information Technology, 29*(1), 49-55.

DeSilets, L. D. (2011). Are you ready for the net generation or the free agent learner? *Journal of Continuing Education in Nursing, 42*(8), 340-342.

Downes, S. (2007). Models for sustainable open educational resources. *Interdisciplinary Journal of Knowledge and Learning Objects, 3.* Retrieved from http://ijklo.org/Volume3/IJKLOv3p029-044Downes.pdf

Dunn, R. & Menchaca, F. (2009). The present is another country: Academic libraries, learning technologies, and relevance. *Journal of Library Administration, 49*(5), 469-479. doi: 10.1080/01930820903089120

Fini, A. (2009). The technological dimension of a massive open online course: The case of the CCK08 course tools. *The International Review of Research in Open and Distance Learning, 10* (5). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/643/1402

Guri-Rosenblit, S. (2009). Distance education in the digital age: Common misconceptions and challenging tasks. *Journal of Distance Education*, 23(2), 105-122.

Judd, T. & Kennedy, G. (2010). A five-year study of on-campus Internet use by undergraduate biomedical student. *Computer & Education, 55*(4), 1564-1571.

Kop, R. (2011). The Challenges to connectivist learning on open online networks: Learning experiences during a massive open online course. *International Review of Research in Open and Distance Learning, 12*(3), 19-38. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/882/1689

Kop, R., Fournier, H., & Mak, J. (2011). A Pedagogy of abundance or a pedagogy to support human beings? participant support on massive open online courses. *International Review of Research in Open and Distance Learning, 12*(7), 74-93.

Lewis, D.W. (2012). The inevitability of open access. *College & Research Libraries, 73*(5), 493-506. http://crl.acrl.org/content/73/5/493.full.pdf+html

Lyons, J., Lubert, G., & Jellous, S. (2010). The Valuation paradox. *Canadian Underwriter, 77*(11), 18-22.

Makri, S., Blandford, A., Gow J., Rimmer, J., Warwick, C., & Buchannan, G. (2007). A library or just another information resource? A case study of users' mental models of traditional and digital libraries. *Journal of the American Society for Information Science & technology, 58*(3), 433-445. Doi:10.1002/asi.20510

McAuley, A., Stewart, B., Cormier, D. & Siemens, G. (2010). In the Open: The MOOC model for digital practice. SSHRC Application, Knowledge Synthesis for the Digital Economy. http://www.edukwest.com/wp-content/uploads/2011/07/MOOC_Final.pdf

Nash, R. (2005). Course completion rates among distance learners: Identifying possible methods to improve retention. *Online Journal of Distance Learning Administration, 8*(4). Retrieved from http://www.westga.edu/~distance/ojdla/winter84/nash84.htm.

Pattern, D. (2011, May 11). Dave's Law [Web Log comment] Retrieved from http://www.daveyp.com/blog/archives/1800

Reinhart, C.J. (2008) Constructing the café university: Teaching and learning on the digital frontier. *Information Technology & Libraries.* 22(1), 13-33. Doi: 10.1108/10748120810853327

Robinson, K. (2010). *Sir Ken Robinson on Education, Animated.* [Video file] Retrieved from http://extremepresentation.typepad.com/blog/2010/10/sir-ken-robinson-on-education-animated.html

Shank, J. D. & Bell, S. (2011). Blended librarianship: [Re]envisioning the role of librarian as educator in the digital information age. *Reference & User Services Quarterly, 51*(2), 105-110.

Siemens, G. (2009). Socialization as information objects. *Connectivism Website.* Retrieved from http://www.connectivism.ca/?p=127.

Wilson, V. (1994). Developing the adult independent learner: Information literacy and the remote external student. *Distance Education, 15*(2), 254-78.

Yu, D., & Hang, C.C. (2010). A Reflective review of disruptive innovation theory. *International Journal of Management Reviews, 12*(4), 435-452. doi:10.1111/j.1468-2370.2009.00272.x

Zepeda, A. (2004, October 5). Small town library takes on the feds. *komonews.com.* Retrieved from http://www.komonews.com/news/archive/4135096.html