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## Opening Up Information Literacy: Empowering Students through **Open Pedagogy**

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# OPENING UP INFORMATION LITERACY: EMPOWERING STUDENTS THROUGH OPEN PEDAGOGY

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### ABSTRACT

Open pedagogy and critical information literacy are influenced by critical pedagogy, which advocates for a disruption of information authority and privilege in the classroom and the creation of an environment that empowers students to be equal participants in their own learning. With the open education movement and the affordances of networked technologies, open pedagogy has the potential to enable students to be active co-creators of knowledge, engaging in information literacy practices of finding, analyzing, and sharing knowledge. Moving beyond an individualistic skills-based approach to information literacy, open pedagogy provides students with opportunities to not only reflect on their understanding of the political, social, and cultural dimensions of information but also to authentically engage in enacting change in the information landscape. In this article, we provide an overview of open pedagogy and information literacy theory, outlining how they intersect and the ways in which open pedagogy might facilitate critical aspects of information literacy instruction in librarianship. To demonstrate this pedagogical theory in practice, we provide an example of open pedagogy enabled information literacy instruction through a Wikipedia-based classroom assignment.

Keywords: Open Pedagogy, Critical Information Literacy, Information Literacy, Critical Pedagogy, Open Education, Wikipedia

### Introduction

Open pedagogy (OP), and its alignment to the open education movement, has created an

opportunity for instructors to empower students to be full participants in the creation and sharing of knowledge through networked technologies. This provides students the opportunity to

actively participate in improving the information landscape by focusing on students as informed creators of openly accessible knowledge. For academic librarianship, the goals of supporting information literacy (IL) development in students—including finding, evaluating, using, and creating new knowledge—are core to teaching and learning programs. While more recent approaches to IL promote a critique of systems for information creation and dissemination, they do not address "... possible solidarities for the student to help change the information system itself, nor the hierarchies of knowledge and status within academia" (Beilin, 2015, para 25). OP provides an opportunity for librarians to engage students in authentically creating and sharing new knowledge while critically evaluating information systems in the process. This supports students in learning about how information works, the structures of power that impact information systems, and ways to take action for positive change (Fister, 2014b) (Fister, 2013). In this paper, we investigate how OP and IL intersect by first providing definitions of OP and IL, addressing overlaps, and identifying how OP might support information literacies identified in librarianship. We also provide a practical example of OP informed IL instruction through a Wikipedia-based course assignment.

### **OPEN PEDAGOGY - DEFINED**

OP is heavily influenced by social constructivist theory and critical pedagogy. Social constructivist theory emphasizes the "...importance of sociocultural context and the role of social interaction in the construction of knowledge" (Couros & Hildebrandt, 2016, p146). In this theoretical frame knowledge is created, negotiated and renegotiated through social interactions, critique and analysis (Cormier, 2008) (Couros & Hildebrandt, 2016) (Gergen and Wortham, 2001). In social constructivism, "... humans learn by building knowledge cooperatively through social interaction and the application of prior knowledge (as tools) in a continual interpretation of ongoing experiences" (Bentley, Fleury, & Garrison, 2007, p11). As knowledge is socially constructed through this process, it is also then fluid and is reflective of the social, cultural, and political systems, values and practices of the time in which it was validated. Knowledge then is flexible and is open for interpretation through social communal dialogue.

Critical pedagogy critiques information privilege and authority and rejects the transactional models of education where the authority (i.e. teacher) feeds knowledge to the novice (i.e. student). Instead, the teacher works to break down hierarchies and empower learners to not only interpret, reject, or grant meaning to knowledge, but also to think critically about their own position within the institutions that maintain information authority (Gergen and Wortham, 2001). The teacher in this approach seeks to participate alongside students in problem solving through critical reflection, dialogue and action. This approach disrupts classroom hierarchies as students engage in critical reflection and empowers students to be full participants with an equal voice in identifying and questioning power imbalances and oppressive practices. (Bentley, Fleury, & Garrison, 2007) (Riasati & Mollaei, 2012). The purpose of education, in this context

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then, is aimed at developing ways of thinking that address how information is shaped by the context in which it was created and to "...act upon decreasing social discrimination" (Riasati & Mollaei, 2012, p. 225).

Within the context of OP, authors have identified the importance of social constructivism and critical pedagogy through the works of Paulo Freire, Henry Giroux, and bell hooks. Themes of information privilege and authority (Heidebrink-Bruno 2013a; Baili 2017; Derosa & Jhangiani 2017a; Stommel & Morris 2014; Shaffer 2013), breaking down hierarchies to engage in collaborative dialogue (Heidebrink-Bruno 2013a; Haggarty 2015; Derosa and Jhangiani 2017a,b; Stommel & Morris 2014; Shaffer 2013; Ehlers 2011; Rosen & Smale 2015), critical analysis of power imbalances in information and information institutions (Couros & Hildebrandt 2016; Conole 2013; Haggerty 2015; Derosa & Jhangiani 2017a; Stommel & Morris 2014; Rosen & Smale 2015), and the empowerment of students for the betterment of society (Cormier, 2008) have become the theoretical grounding for OP. The uniqueness then of OP as an approach to education is its focus on openness and its application in the open education movement through the use of technologies to break down barriers to access.

The open movement initially focused on access to research sources for the purpose of greater reach, the potential to increase innovation, and the reclaiming of intellectual property rights. With global networks and digital texts the potential for free openly accessible information was possible but the barriers of cost, social association, and ownership of information remained significant hurdles. The open access movement

addressed these issues by removing barriers to information access that privileged those with financial means or an association with institutions (e.g. academic libraries, etc.). Open access empowered scholars to claim their intellectual property rights and remove permissions barriers for the use and reuse of their work (Suber, 2012). With the growth of the open education movement, the principles of removing these barriers remain fundamental goals with the creation of open education resources (OER). The creation of OER was integral to the social justice commitment to breakdown access to education barriers through the delivery of no-cost education resources; however, they did not address innovation in teaching and learning practices within the classroom (Ehler, 2011). OP builds upon the social justice commitments of open access with the creation and use of OERs but also invites students to be active participants and collaborators in the creation process—aligning education practice to the foundations of critical pedagogy. The fundamental belief that knowledge does not belong to the experts, allows instructional practice to focus on empowering learners in an active form of resistance against the teacher-student hierarchy (Derosa & Jhangiani, 2017) (Stommel & Morris, 2014).

While open resource creation can occur without OP, the relationship between openly licensed content and the analysis and creation of new knowledge are intricately connected (Haggerty, 2015). In OP, where open access is a fundamental principle, networked technologies provide an opportunity for large scale participation regardless of credentials or association. This empowers voices that have been excluded from knowledge

creation and sharing (Cormier, 2008). As Howard Rheingold (2012) states, "In the world of digitally networked publics, online participation if you know how to do it—can translate into real power. Participation, however, is a kind of power that only works if you share it with others." (p. 112). While networked technologies provide the vehicle for participation and sharing, OP requires authentic, student-centred learning with these technologies and emphasizes the importance of peer-to-peer dynamics in networked spaces with more experienced contributors (e.g. instructors, knowledgeable peers, etc.)—as mentors to those with less experience (Hagarty, 2015). These participatory environments, as Jenkins et.al. (2006) states, "... [leads to] a changed attitude toward intellectual property, the diversification of cultural expression, the development of skills valued in modern workplace, and more empowered conception of citizenship" (p. 3).

### Information Literacy - Defined

As academic library positions shifted away from the provision of discrete reference services—towards an instructional model that is more deeply connected to the pedagogical goals of the university—there was an increased interest in teaching students a broad set of literacy skills that can improve students' abilities to find and use information (Elmborg, 2006). Despite this increasing emphasis on literacy instruction, definitions of the concept vary widely and continue to evolve over time. For the purpose of this paper, we will explore how IL is defined within the governing documents of the library profession and how scholars have critically evaluated those definitions.

The term "information literacy" was first introduced in a report for the National Commission on Libraries and Information Science, Zurkowski (1974) wrote, "Information is not knowledge; it is concepts or ideas which enter a person's field of perception, are evaluated and assimilated reinforcing or changing the individual's concept of reality and/or ability to act" (p. 1). In a time of increasing access to information sources, Zurkowski argued that individuals needed to develop IL skills in order to find, access, and utilize information in order to accomplish a goal. With the American Library Associations (ALA) recognition of the need for people to independently "...locate, evaluate, and use effectively the needed information" (ALA, 1989, para 3), and the creation of the Association of College and Research Libraries Information Literacy and Competency Standards in Higher Education (ACRL Standards) in 2000, IL was formally introduced to librarianship and literacy instruction. IL discourse for libraries was then dominated by the belief that training individuals in a set of skills would yield an information literate society (Jacobs, 2011).

With over a decade of professional focus and research on IL in librarianship, critiques of this skills-based approach have yielded new ways to engage in IL instruction. Critiques of librarianships' approach to IL have rejected the ways in which instruction programs often frame information as a neutral and universal resource (Kapitzke, 2003). In recognizing that information neutrality obfuscates the ways information is contextualized within the conditions of its production and consumption, IL definitions and practices in librarianship have been called to address the ways in which information is produced and

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represented (Kapitzke, 2003) (Pawley, 2003). This questioning of the underlying assumptions of IL represents both a major intellectual shift in understanding IL and a significant challenge to existing models of instruction informed by critical pedagogy.

Elmborg's (2006) introduction of the term critical information literacy (CIL) provided an approach to library instructional practice rooted in critical pedagogy. Drawing from critical theorists like Freire, McLaren, and Giroux, Elmbourg identifies the need for instruction programs to move beyond models that promote standardized and hierarchical approaches to how IL is taught and exhibited by learners to a collaborative model, which encourages learners to explore the political, social, and cultural nature of information to "...[solve problems] and to create their own understandings and identities" (2006, p. 198). Like OP, CIL-informed teaching and learning promotes a liberatory perspective, alongside a reflective critique, of the politics of information production, dissemination and consumption. CIL focuses instructional practice on, "... [examining] the social construction and political dimensions of information, and problematizes information's development, use, and purposes with the intent of prompting students to think critically about such forces and act upon this knowledge" (Tewell, 2015, p. 36). The purpose of CIL instruction then is to, "... resist the tendency to reinforce and reproduce hegemonic knowledge" (Beilin, 2015, para 12), which occurs when literacies are reduced to skill development. This transition to critical information literacies encourages engagement with issues of the social construction of knowledge (Elmborg,

2006, 2012; Jacobs, 2008; Mackey & Jacobson, 2011), how the production and dissemination of information is impacted by information authorities (Elmborg, 2006, 2012; Jacobs, 2008; Tewell, 2015) and the critical evaluation of how information is organized and structured (Elmborg, 2006, 2012; Beilin, 2015). Engagement with CIL then shifts the instructional role of the librarian from a public-service oriented problem-solver to a critical theory informed problem-poser (Jacobs & Berg, 2011; Elmborg, 2012; Kapitzke, 2003).

While CIL perspectives have become increasingly integrated into the way IL is discussed and identified in the profession, professional definitions of IL reflect a tension between utilitarian and critical perspectives. The introduction of the ACRL Framework for Information Literacy (ACRL Framework) in 2015, replacing the previous ACRL Standards, redefined IL as a social process by which learners are granted "... agency to critique the social and institutional hierarchies surrounding information production and distribution" (Foasberg, 215, p. 206). The purpose of the ACRL Framework was to guide post-secondary institutions in the instruction of IL, defined as a "... set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning" (ACRL, 2015, para 7).

Though the ACRL Framework's provision of more flexible and interconnected IL concepts represents a significant intellectual shift from the previous skills-based ACRL Standards, a number of authors have suggested that the ACRL Framework, as well as our understanding of IL

in the University more generally, remain conflicted. This conflict can be seen in the repeated reference in the ACRL Framework to advanced IL learners as "experts", which frames IL as a competency that can be possessed by an individual who has mastered a specific set of skills reflecting the "... passive information bank where students and faculty make knowledge deposits and withdrawals", critiqued by Elmborg (2006, p. 193). Academic librarians have traditionally focused on teaching measurable skills that can be performed and assessed to show belonging in academic environments; a skill which is at odds with incorporating CIL's critique of information authority, context, value, and power (Elmborg, 2006) (Bailin, 2005). Seale (2016) argues that the ACRL Framework's emphasis on "dynamism, flexibility, [and] individual growth" represents a neoliberal perspective at odds with principles of CIL. Nicholson (2014) echoes this idea that, as a situated practice, IL is tied to the individualistic skills-based agenda of the neoliberal university.

The ACRL Framework attempts to bridge the gap between skills-based competencies and critical pedagogy through the incorporation of CIL principles; yet much of the professional practice of IL instruction continues to focus on the simplification of complex academic engagement in order to transform the information illiterate into literate individuals. Though the ACRL Framework does not reflect all of the principles of CIL, it does represent a significant evolution of our professional conceptualization of IL towards an acknowledgement and exploration of power in information systems. Throughout this paper when we use the term IL, we refer to this somewhat conflicted professional understanding

of the term. We also acknowledge that our understandings of IL will continue to develop as new technologies and pedagogical approaches impact how we use and teach information systems.

## OPEN PEDAGOGY & INFORMATION LITERACY INTERSECTIONS

While critical pedagogy is an obvious connective thread through OP and IL, OP's commitment to openness, by empowering learners to collaborate in building new knowledge and sharing through technology, creates a unique opportunity to see IL fully embrace critical pedagogy in action. The potential for students to engage in "... [using] information in creating new knowledge and participating ethically in communities of learning" (ACRL, 2015, p. 3) is greatly increased when the focus of IL is on collaboration and contribution. The focus on collaboration actively addresses the oversimplification of academic engagement when IL is reduced to assessable skills. As students negotiate and collaborate in the creation of information, they have the ability to not only find and evaluate sources but can engage in a critical understanding of the tools for information creation and organization. By allowing students to make decisions about how to showcase, describe and interact with their information objects, they have the opportunity to develop a greater understanding of how tools work within systems that have defined values and structures of authority. As students engage with technologies to openly share information objects, they can create connections with communities outside of the classroom-adding value to the information "landscape" and inviting further critical dialogue which reflects the

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academic practice of negotiating diverse ideas and perspectives. If the technologies the students are using to create information are open collaborative tools (like wikis), the students have the ability to modify other contributors work to reflect how information evolves over time. When teaching closed information systems (like the library catalogue), discussions of value, authority, and power can occur, but enacting change within those systems is neither swift nor open to public modification. Including diverse voices that reflect how communities identify and describe themselves can occur within systems that are collaboratively developed, providing a greater opportunity to reflect diverse experiences. Finally, OP offers an authentic opportunity for students to investigate issues of intellectual property, copyright, information security, privacy, and freedom of information by situating these issues in the students' experiences of openly sharing their work. This can provide students with an authentic experience of these IL issues as it pertains to their own creative and intellectual practice.

### A PRACTICAL APPLICATION

During the Fall 2018 term, the University of British Columbia (UBC) Library partnered with a course in the First Nations and Indigenous Studies (FNIS) program on a Wikipedia-based assignment. The assignment contained three parts: a Wikipedia gap analysis, a group editing activity, and a personal reflection. Two classes were dedicated to library instruction. Though we did not formally assess the outcomes of this collaboration, we were able to explore the pedagogical

intersections of OP and IL in a practical classroom setting.

The gap analysis assignment, which will be the focus of this section of the paper, asked students to analyze Wikipedia articles on Indigenous subjects for omissions and errors, focusing on how these gaps might be addressed. Grounding their analysis in the article by Siobhan Senier (2013), Indigenizing Wikipedia: Student Accountability to Native American Authors on the World's Largest Encyclopedia, the students were directed to think about issues of notability in open spaces like Wikipedia and how these information spaces are culturally and politically charged. We covered the following in these sessions: analysis of publishing practices in open and closed systems; analysis of Wikipedia's neutral point of view, categorization, consensus, and reliable source guidelines; and editing Wikipedia.

We began the first library session with a discussion in which students explored publishing practices in both closed and open systems and how these influence knowledge creation. We framed the discussion of how knowledge becomes a part of our academic information ecosystem around the scholarly communication cycle, focusing on how knowledge production is the purview of experts (e.g. faculty) who gather and contextualize information which they then publish in sources approved within their field of study that are subsequently stored in academic institutions (i.e. the library). We asked students to discuss the questions: Who is missing from this knowledge creation process? Who verifies what is considered knowledge? Who has access to that knowledge? And, how does knowledge change

in that system? We then introduced students to the open creation processes of Wikipedia—that of freely accessible, collaborative and openly editable content. We asked them to compare how the systems differ when knowledge construction is a community process that focuses less on the expert creator and more on discussion and negotiation. Students discussed the constraints of traditional knowledge production processes and how a dynamic and open system like Wikipedia impacts what information can be included, who has access to that information, and who can be a part of knowledge production.

While open systems like Wikipedia were identified as having the potential to subvert traditional knowledge production processes, students were asked to examine the ways this open system can purposefully or inadvertently replicate the constraints of closed information systems. To engage in a critical analysis of Wikipedia as an information system, the students engaged in critically evaluating three articles using the Think, Pair, Share learning strategy – a strategy whereby students think about a question posed, share their ideas with a partner, and then share out to the entire class what they have learned, pose additional questions, and discuss with each other their opinions. The students analyzed and discussed the following examples:

### Naomi Osaka Talk Page

We introduced students to the Wikipedia guidelines on consensus. When articles in Wikipedia are disputed and consensus cannot be achieved through the editing process, editors initiate a consensus-building process that can include soliciting third party opinions (Wikipedia: Consensus, 2019). We then asked students to review the talk page for Naomi Osaka, where statements about her racial identity were contested by a number of Wikipedia editors. To facilitate the discussion, we asked students to consider the perspectives of editors engaging in consensus building and the sources they used to prove their interpretation of Osaka's racial identity. The discussion led to students critically evaluating the claims made by editors to reach consensus, assessing the complexity of synthesizing opinion on issues related to racial identity, and how the framing of her racial identity could impact representation within Wikipedia.

### Trans Mountain Pipeline Protest Heading and Citations

We briefly introduced students to the Wikipedia guidelines on reliable sources when writing articles. The guidelines state that published third-party sources with a "reputation for fact-checking and accuracy" are considered reliable (Wikipedia:Reliable Sources, 2019, para 5). These sources include academic and peer reviewed publications, such as journal articles, books published by respected publishing houses, and mainstreams news sources, including newspapers and magazines (Wikipedia:Reliable Sources, 2019). We then asked students to review the "Protest" heading in the Wikipedia article for the Trans Mountain Pipeline with a specific focus on the information sources cited. To facilitate the discussion we asked students to consider who and what is being discussed in this section of the article; what sources editors provided as proof P. 12 Fields & Harper

for the content; and, what questions this approach raises? The students discussed the lack of Indigenous publications being used on a section about protests from First Nations community. This led to critical engagement with ideas of authority and the ways that knowledge production, in both closed and open systems, relies on standard scholarly or mainstream publications that potentially exclude those with lived experience.

### Aaron Nelson Moody - Categorization

Finally, we introduced students to the Wikipedia guidelines on categorization. Categories are used in Wikipedia to make links between both individual pages and topic-based lists of pages. While the conventions for categories primarily relate to structure and grammar, they do also address terminology (Wikipedia: Categorization, 2019). We asked students to analyze the categories of the Aaron Nelson Moody article. To facilitate a comparative discussion, we also asked the students to review the subject terms used for Continuum: vision and creativity on the Northwest Coast, a book containing Aaron Nelson Moody's artwork found at UBC Library. The students discussed how the Wikipedia article on Moody was missing categorization about his Skwxwú7mesh (Squamish) identity and how the library system categorized his work under "Indian Art". This led students to think about how information systems are organized, the importance of organization to access, and how language used for description can impact the visibility of sources. Students further identified how open systems like Wikipedia support immediate change whereas descriptive systems in libraries are restricted to classification systems (e.g. Library of Congress in this instance), which are slower to change.

In the second library session we broke students into thematic groups of 3-4 based on their gap analysis topics. We asked them to share their gap analysis findings and then, as a group, select one article to collectively edit. To get them started, we introduced the students to basic editing processes and supported them in making their edits, which included finding and adding reference sources, changing and adding categories, adding additional information, and restructuring the articles. This assignment allowed students to not only critically reflect but also actively improve representation in the open platform. This engagement also prompted students to grapple with issues related to sharing their work openly.

### Conclusion

OP and critical aspects of IL instruction both have alignments with critical pedagogical approaches; they subvert traditional expert hierarchies and promote more critical understandings of the social, cultural and historical context impacts on how information is produced and consumed. The practical classroom applications described here demonstrates how OP might be used to extend both the reflective and skills-based learnings of IL into active engagement with an open platform. Based on our experiences, we believe this integrated approach has the potential to shift student literacy learning from a passive process of receiving knowledge, to a more holistic learning process that is explored through collaborative, critical conversations—implemented

through negotiations in an information production community. From this initial research, there seems to be significant potential in this intersectional pedagogical approach; however, there also remains many important questions to explore. How might we assess this form of learning that focuses on agency, creative self-actualization, and the tenants of social justice that are integral to OP and IL? Might the emerging practices of critical assessment offer alternative approaches that avoid the quantitative, skills-based metrics of traditional library assessment metrics? In terms of the use of OP in the area of Indigenous knowledge, there is yet more complexity to explore. How might OP as an approach uphold (or not) the First Nations Information Governance Centre (FNIGC) principles of the Ownership, Control, Access and Possession (OCAP®)? Finally, how are we possibly replicating existing conflicts and challenges within the realm of traditional knowledge by inviting editing and editors to Wikipedia that are unaware of, and do not serve, Indigenous community values around information sharing? We invite others to consider these questions and move the conversation forward as we engage in OP and IL in practice.

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