Learning To Learn Online

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Connecting digital literacies to online learning

NICOLE CROZIER AND JOANNA LAKE

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Introduction

We live in a hyper-connected and increasingly mobile world. Cell phones, tablets, and laptops have a consistent presence in many schools and homes. We communicate with each other online, through email, messaging apps, and social media. We consume our entertainment online, through YouTube, Netflix, and Spotify. We shop online, ordering food, clothing, books and household items directly to our homes. Technology has been integrated into just about every aspect of our daily lives, and we've become quite effective at adopting and adapting to this lifestyle.

But do the digital skills and knowledge that we use to navigate our everyday world help us to become effective online learners in a formal education setting?

That's what we set out to explore in this book.

The project begins...

In March and April 2020, we, the authors, enrolled in and completed Athabasca University's 5-week massive open online course (MOOC), Learning to Learn Online. We read the text-based content, watched the videos, completed the activities and quizzes, and participated in the discussions. Throughout the experience, we asked: how is this course helping online learners develop the digital literacies that they need to thrive in online learning environments?

This book is, in many ways, a documentation of that experience. In the first section of the book, we review each of seven digital literacies. For each, we explore what that digital literacy means for the online learner, evaluate how the MOOC asked students to demonstrate that digital literacy throughout the course, and determine if and how the MOOC's curriculum explicitly taught that digital literacy.

In the second section of the book, we look at the MOOC through the lens of specific learner profiles. Each online learner is unique, and viewing them as a group with uniform needs contributes to the continued marginalization of certain populations. In this book, we take a closer look at the needs and digital literacies of traditional learners, English language learners (ELLs), Indigenous learners, and mature learners, exploring how the MOOC, through its delivery and curriculum, supports these learner demographics.

In the final section of the book, we review the MOOC through the lens of the Community of Inquiry (CoI) framework. This section explores the overall quality and effectiveness of the MOOC

by examining the ways in which the MOOC facilitates teaching presence, social presence, and cognitive presence.

Exploring digital literacy

Digital literacies are the skills and knowledge required for an individual to productively live, learn and work in a digital society. Digital literacy is not simply the Information Technology (IT) skills required to navigate the digital world, but also includes a much wider and richer set of digital behaviours, practices and identities (JISC, 2014). JISC, a non-profit company in the United Kingdom that specializes in digital resources and technology for higher education, created a digital literacy framework in 2014 that identified seven key elements of digital literacy. Throughout this book, this is the framework used to evaluate the MOOC; you can learn more about the framework in the Chapter 1 introduction.

Defining 'online learner'

Before continuing with the book, it's important to clarify the term "online learner." Throughout the MOOC, it became clear to us that course definition was all-encompassing, and included both learners participating in formal learning (i.e. through online coursework) and informal learning (i.e. conducting a Google search, participating in a social media community for the sake of gaining knowledge). Throughout this project, and therefore throughout this book, we have defined the online learner as a learner participating in online courses in a higher education setting, an approach that aligns with our work and daily experiences.

Our goal

Whether you are an online learner or an online instructor, we hope that you find this book useful. Our goal is to help shape your understanding of what a learner needs in order to succeed in online learning, and how online courses can help learners develop and enhance their digital literacy skills. We want to live in a world where all learners can thrive in online learning environments—and we think that world is within our reach.

About the Authors

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Nicole Crozier is a student affairs professional working in orientation at the University of Victoria. Much of her role focuses on the development and implementation of an online orientation program to support the transition of new UVic students. Nicole is also currently an M.Ed student studying Educational Technology at the University of Victoria, where her major focus is on how to develop effective and engaging online learning experiences for students.

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About the Project

This e-book was created to meet the requirements of an assignment for EDCI 572: Development and Implementation of the Curriculum in Digital Learning Contexts.

The course requires students to consider how digital literacy frameworks can be integrated into curriculum, and focuses on how educational technology theory can influence pedagogical approaches by considering digital tools, digital resources, current trends and issues within authentic learning contexts.

Accessibility Statement

We, the authors, believe education needs to be available to everyone, which means supporting the creation of free, open, and accessible educational resources. We are actively committed to increasing the accessibility and usability of all content we create online.

Accessibility Features

The web version of this resource has been designed with accessibility in mind by incorporating the following features.

- It has been optimized for people who use screen-reader technology.
  - All content can be navigated using a keyboard.
  - Links, headings, tables are formatted to work with screen readers and images and gifs have alt tags.
- Information is not conveyed by colour alone.
- Font may be resized from the tab on the top right of the screen.

Other File Formats

In addition to the web version, this book is available in a number of file formats, including PDF, EPUB (for eReaders), MOBI (for Kindles), and various editable files. These formats can be retrieved from the "Download this book" drop-down menu on the book's home page.

Known Accessibility Issues

The rubric used to evaluate this resource for accessibility is included in the publication's back matter. While we strive to make our resources as accessible and as usable as possible, we might not always get it right. Any issues we identify will be listed below. There are currently no known issues.

List of Known Accessibility Issues

Location of issue	Need for improvement	Timeline	Workaround

If you encounter problems accessing this resource, please contact us at nicolecrozier@uvic.ca or jlake@sd61.bc.ca to let us know so we can address the issue.

Please include the following information:

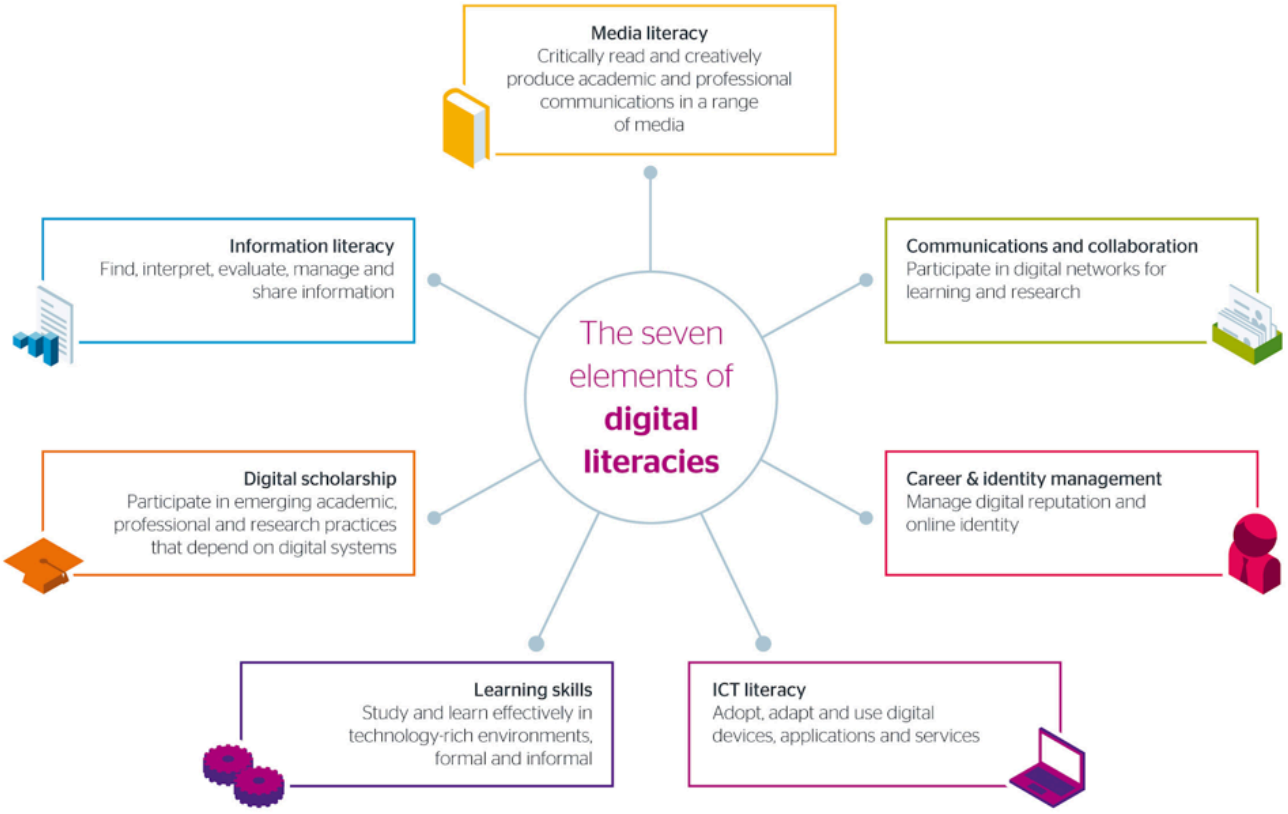
- The location of the problem by providing a web address or page description
- A description of the problem
- The computer, software, browser, and any assistive technology you are using that can help us diagnose and solve your issue
    - e.g., Windows 10, Google Chrome (Version 65.0.3325.181), NVDA screenreader

This statement was last updated on April 27, 2020.

CHAPTER 1: DIGITAL LITERACIES

To survive and thrive in online learning environments, the learner needs to have a basic level of digital literacy. This includes possessing the skills and knowledge to navigate the tools used to deliver course content, accessing communication skills in order to make connections and collaborate with others with others, finding and evaluating information on the internet, and so forth. While it may be possible to complete a course with limited digital literacy, the greater a learner's digital literacy, the richer the learning experience will likely be.

There are numerous digital literacy frameworks available to serve the diverse needs of our global community. For this project, we have chosen to explore JISC's digital literacy framework, which outlines seven key elements: media literacy, communications and collaboration, career and identity management, ICT literacy, learning skills, digital scholarship, and information literacy (JISC, 2014). When researching frameworks, we felt the JISC framework was clear, concise, and encompassed the skills and knowledge we felt, through our career and educational experiences, were important for online learners.

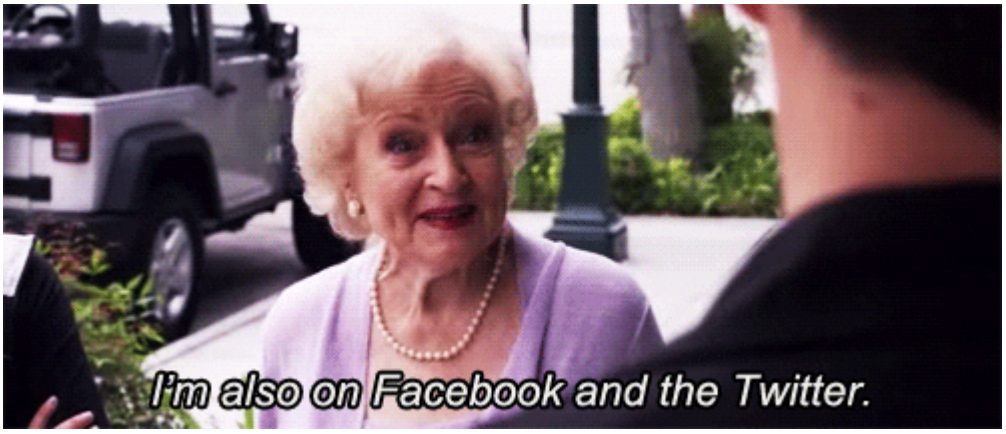


In this section, we take a deep dive into each of the seven digital literacies. For each literacy, we'll explore how it relates to the online learner and how they can benefit from strong literacy in this

area. We will then examine Learning to Learn Online through the lens of the literacy in question, examining how the literacy is required for the learner to complete the MOOC, and how the MOOC explicitly teaches that literacy through the curriculum. It is important to note that the MOOC was not built using JISC's digital literacy framework as a foundation, and the chapters that follow offer a new perspective of the MOOC.

Image credit: The graphic of the JISC digital literacy was obtained from the Developing digital litercies InfoKit on the JISC InfoNet.

Media Literacy



Media literacy refers to the ability to "critically read and creatively produce academic and professional communications in a range of media" (JISC, 2014). Digital media may include formats such as podcasts and videos, and various forms of text-based content, including blogs, discussion forums and even social media. Online learners need to be able to read a variety of types of online content, listen to podcasts, and/or watch videos, and extract meaningful information. They need to understand the difference in how to approach writing a journal article vs. a blog post vs. a tweet, and how to tell stories and convey information in a podcast or video format. In order to succeed online, learners must be able to consume and create content in the various forms of media offered by the online space.

Throughout the MOOC, learners are expected to demonstrate *media literacy*. While much of the course content is delivered via text-based content, learners are also expected to learn using additional media formats throughout. Each module starts with a video from the main instructor, in which she explains what to expect in the module, and guest videos are also used to explain concepts in several areas of the course. Slideshows are used to reinforce concepts a few times, and the course links out to external websites on several occasions. The MOOC also expects learners to contribute to the course through a variety of media; several reflection activities ask learners to find images, videos and external websites that support a specific concept.

Despite the MOOC requiring learners to exercise *media literacy*, there is a relative lack of content in the MOOC that helps learners explicitly gain this skill. While some of the following elements may seem like very basic *media literacy* skills, the MOOC could easily introduce learners to:

- The basic features of a video player, including how to make a video full screen, turn on closed captioning, use subtitles in a variety of languages, and adjust playback speed
- Common repositories of videos, such as YouTube and Vimeo

- Image copyright (i.e. explaining how to know which images found on the internet are okay for common use, and which are not)
- Approaches for creating content in different media formats

Additional Resources

- How to create digital assignments in Google Drive (video)
- Accessibility considerations when planning audio and video media (webpage)
- Copyright and how it works for online images (blog post)
- How to make a Youtube channel using a smartphone (video)

Communication & Collaboration

Moira Rose, character on CBC's Schitt's Creek asks: "and what would that communique entail?"

The *communications and collaboration* digital literacy encompasses how we "participate in digital networks for learning and research" (JISC, 2014). When engaging in online learning, learners will often be required to communicate with their instructors to gain clarification on a concept, to communicate with their peers while discussing course content, and to collaborate with their peers on group projects. Within a course, learners need to know what forms of communication are available and how to utilize these tools, and outside the course they need to know how to communicate in order to create new connections and collaborate with the global community. Learners also need to have the communication skills required to clearly convey both information and opinion.

The MOOC sets a high standard for online learning with regards to helping learners develop their *communications and collaboration* literacy. Throughout the course, the instructor demonstrates clear and timely communication through weekly emails detailing pertinent information, and through the instructor videos at the beginning of each module. Learners can develop their communication skills by contributing their thoughts and experiences to the weekly discussion forums, where they can also reply to others in the learning community and share resources. Learners can also communicate with one another through the 'explore' activities at the end of each section, which ask the learner to use a discussion forum or the Padlet tool as a method of connection and collaboration.

The course also provides specific resources for building communication skills. Module 4 explores both written and interpersonal communication, and provides the learner with tips for effective written communication, a brief quiz to test communication skills, and links to external website resources. These resources are beneficial for learners who are unfamiliar or new to academic writing, or for those looking to bolster their active listening skills. Learners are also introduced to the importance of a personal learning network (PLN), and its multi-faceted approach of using social media to connect current social contents and make new connections online. The instructors encourage learners several times throughout the course to create a Twitter profile in order to connect and collaborate with other people in their respective fields, and to follow the course Twitter account and use the course hashtag to connect with past and current learners who are part of this online learning community.

As this was a MOOC, there were limited ways for learners to communicate directly with the instructor. Learners could post in the discussion forum and message the instructor(s), but there

were no office hours, email, or phone number, removing an opportunity for learners to exercise their communications skills. Although the MOOC offered a live, synchronous session, the session was simply a lecture with accompanying slides, and did not offer opportunities for learners to communicate with the instructor or their peers. The MOOC could have used a video-conferencing tool such as Zoom or BlueJeans to set up the synchronous meeting time to pose questions to either the entire learning community or in small group break-outs in order to encourage further peer-to-peer communication and collaboration opportunities, as well as foster relationship-building between the greater learning community.

Additional Resources:

- Strengthening your communication skills (video)
- Written communication skills (webpage)
- Blog post on how to use Twitter as an academic (blog post)
- 7 free and easy-to-use collaboration tools (blog post)

Career & Identity Management

Johnny Rose, character on CBC's Schitt's Creek, states: "You're not the only one with an online presence."

Learners who are digitally literate in *career and identity management* are able to “manage their digital reputation and online identity” (JISC, 2014). This means that the learner understands who can see the content they post online and what impact that content could have, both positive and negative. They understand that the content they share online, be it social media posts, blog posts and comments, videos and more, shapes the impressions other people form of them. Learners with strong digital literacy skills in this area can cultivate relationships online and leverage online platforms for personal and career growth.

For an online learner, the importance of being digitally literate in *career and identity management* may be different depending on how their learning experience is structured. In more closed courses, this literacy may not be as critical. However, even in those cases, students will often interact with their peers via discussion forums, video-conferencing and group projects. In all of these examples, a learner’s peer will generate a perception about the learner based on how thoughtful and knowledgeable their contributions are, how clear their communication is, how much they contribute, etc. Other courses may be more open, asking learners to use social media or create blogs and learning portfolios, meaning the learner will need to consider how the content they create in the course will be perceived by people outside the course, be it other people in their field or the general public.

The MOOC teaches the digital literacy of *career and identity management* through the introduction of the PLN. They encourage learners to create a learning network on a popular social media application and even provide a specific discussion forum for learners to be able to share their contact information, so as to facilitate connections. However, the concept of the PLN focuses more on learning and consumption of content than on helping others learn by creating content, and doesn’t inform learners of the vast potential of online spaces for forming a digital reputation and online identity. The MOOC also discusses the development of online learning communities only through a positive lens, failing to discuss with learners any of the potential pitfalls or downfalls of existing in an online space, such as privacy and harassment.

The MOOC also provides opportunity for learners to build on their *career and identity management* digital literacy through their participation in the course. Canvas, the learning management system (LMS) through which this course was delivered, allows learners to set up a profile, adding a picture, pronouns, a biography, and links, which could include links to social media accounts or a personal website. Setting up a profile helps a learner create a digital identity

within a course. The profile photo can help other learners in the course feel as though they are engaging with a real human, the biography can help them understand more about you and your perspectives, and links can provide them with an opportunity to engage with you outside of the course, and continue that engagement after the course has ended. Both the discussion board prompts and the Padlet activities within the course also provide an opportunity for learners to demonstrate and develop their career and identity management literacy, as the learner is asked to share their thoughts and experiences with their peers.

Additional Resources:

- How to create and build your PLN (video)
- Legal and ethical issues surrounding social media (blog post)
- Managing your digital identity (blog post)

ICT Literacy

The *information and communication technology (ICT) literacy* describes a learner's ability to "adopt, adapt and use digital devices, applications and services" (JISC, 2014). This refers to a learner's ability to navigate the technical requirements of being an online learner.

Online learners unquestionably require strong *ICT skills*, and a learner with a lower literacy in this area will likely find the course more difficult to complete. However, depending on how the course is structured, the exact level and types of *ICT skills* they require may be different. At the base level, the majority of online learners will likely need to know how to use a computer, create documents in Microsoft Word and PowerPoint (or equivalents), and navigate some sort of LMS. They may need to be able to use video-conferencing software or a specific communications platform in order to participate in synchronous sessions or group projects. Some courses may require students to have skills in web design, podcasting, or video creation in order to create assignments. As a fundamental, learners will be well-served if they have developed the patience and problem-solving skills needed to learn how to use new software tools as online learners. Learners will also have an advantage if they are familiar with the shortcuts or more detailed features embedded within the software they are using, such as keyboard shortcuts for tasks such as copying and pasting, bookmarking tools to quickly return to often-used resources, bibliography software such as Zotero or RefWorks.

The MOOC embraces *ICT literacy*, as the course itself is online. Learners are required to be able to use a computer, navigate the Canvas LMS and the course site, understand how to post in discussion forums, access and complete the online activities and open media such as the video introductions in each module and a few supplementary slideshows. The MOOC does not assume that all learners had strong *ICT skills* from the beginning, and provides a number of different resources and detailed instructions that learners could access if they need guidance. These include:

- Resources to learn how to navigate the LMS, including a video overview of the course interface, instructions on how you can communicate with your instructor, details on how to update your profile and change notification settings, and a link to a full Canvas guide.
- Information on computer basics, including using your mouse, working with Windows, common computer programs and apps, working with files and folders, and keyboard shortcuts.
- Information on internet basics, such as explaining the internet browser, conducting an internet search, downloading files from the web, setting up an email account, an introduction to cloud computing and how to make sure your computer is safe from viruses and spyware.
- Clear instructions for how to use the technical tools in completing the discussion posts and learning activities (i.e. "to make a new post, click the Reply area directly below"; "notice the icons located at the bottom of the box which allow for audio, video, photos and attachments.")

One aspect of the *ICT literacy* that is missing from the MOOC is information related to privacy, security, and safety. The way the course instructors describe various digital tools, as well as their encouragement of blogging and social media use for the development of a personal network, presents the online world as a bit of a utopia, where nothing can go wrong. The course lacks any content teaching users about how to protect their data online, considerations for what type of content you post online and where, how to evaluate a digital tool from a privacy lens, etc.

Additional Resources

- How to use Zoom for students (video)
- Protecting your privacy online (blog post)
- How to make a Youtube channel using a smartphone (video)
- How to upload files and video to Google Drive (video)
- How to create a blog (webpage)

Learning Skills

The *learning skills* digital literacy highlights the ability of the learner to "study and learn effectively in technology-rich environments, formal and informal" (JISC, 2014). Online learning requires additional skills differing from face-to-face learning, and since online learning is typically self-directed, an absence of these skills will make a students' learning experience difficult. These skills include:

- Time management (i.e. effectively managing deadlines, schedules)
- Organization (i.e. creating a dedicated study space, ability to easily access material)
- Self-motivation (i.e. scheduling set times for coursework, peer study accountability)
- Self-regulation (i.e. strategies can include breaks, physical activity, meditation)
- Strong written and oral communication (i.e. technical writing skills, ability to communicate with others and ask for assistance if needed)

In face-to-face teaching environments, the requirement to physically attend class, coupled with community accountability, makes a learners' individual *learning skills* less relevant for academic success. However, when learning online there is less instructor oversight, motivation, and accountability, requiring the student to have the skills required to learn effectively. While a face-to-face instructor may notice that their student is absent, confused, or falling behind, and will check in on their well-being and offer support for their success, an online instructor often has less

opportunity to do this. The learner is therefore required to have strong *learning skills*, recognize their responsibility as a self-directed learner, and practice these skills accordingly.

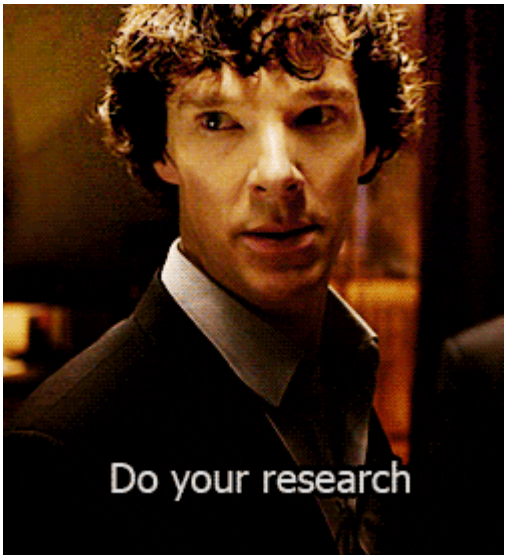
The title of the MOOC, *Learning to Learn Online*, implies that learners, over the course of five weeks, will learn the skills needed for successful online learning. Throughout the entirety of the course, *learning skills* are embedded in all of the modules. In Module 1, the instructor asks the learner to reflect on how they learn best, introducing the learner to underlying skills that allow them to complete certain tasks more easily than others. Module 2 provides an overview of online learning, which allows the learner to understand the benefits and differences between face-to-face and online learning, as well as any myths or misconceptions that are common to online learning. The content provided in Module 4 addresses the factors learned in the earlier modules, and examines them in-depth. For example, the section about "areas of role adjustment" lists the skills needed for successful online learning, and offers strategies in order to develop these skills, and the "habits" section provides a case study into how an online learner manages their course load, and contains many helpful tips and strategies to encourage success. Finally, Module 5 contains further resources on specific *learning skills* with the goal of helping the learner create a personal strategy for online success.

Although the MOOC provides plenty of written tips about *learning skills*, there is no explicit instruction given to students on how to practice these skills within the course. The course could explicitly teach out and provide learners with opportunities to practice the skills needed in order to succeed in a digital learning environment. By creating a task related to a *learning skill* (say, time management) the learners could make a plan, set a goal, and check-in with peers to learn what works and what doesn't work for each individual. It is also interesting to note that there is little to no mention of the challenges of online learning. Being transparent about the complexities of online learning allows students to decide if this type of learning works well for their lifestyle.

Additional Resources:

- Time management case study using Pomodoro method (video)
- How to manage your time (video)
- Self-motivation for online students (blog post)
- How to make the most of online learning (video)

Digital Scholarship



The *digital scholarship* literacy requires learners to "participate in academic, professional, and research practices that depend on digital systems" (JISC, 2014). *Digital scholarship* encompasses both traditional forms of digital media such as online scholarly databases, e-mail correspondence, and digitized academic collections, and newer forms such as social media, including Twitter, blog sites, and other hubs of online collaboration.

Online learners, as well as learners in a classroom environment, require a strong understanding of *digital scholarship* in order to effectively engage with academic research and publications. It is critical for learners to know and understand the intricacies of navigating online databases in order to find and use published research throughout their academic career. Learners should understand the differences between different databases and know how to use boolean operators during a search to narrow down their search results. They should also be familiar with lesser-known digital systems connected to education and research should also be explained and understood, such as blogs and social media platforms like Twitter.

Interestingly, the MOOC itself is a site of *digital scholarship*, as the instructors are conducting active research using the course as a study. Learners have the opportunity to become participants and complete two surveys during the course, thereby actively participating in digital scholarship. The course's active presence on Twitter and encouragement of its learners to maintain their online presence also provide learners with a continued opportunity to participate in the academic discussion involving online learning.

Although the MOOC involves learners in participating in *digital scholarship*, the course neglects to define this digital literacy and its importance in relation to the academic and research community.

The MOOC does not offer content on using databases to search for academic research, nor does it explain boolean or its purpose. Online database searching is a key component of almost every post-secondary learning experience, and learners need to have some knowledge of how to successfully retrieve information from credible sources online. Finally, the course could help learners with this literacy by including information on how to contribute to the creation of digital scholarship, perhaps through a more detailed overview of maintaining a professional blog.

Additional Resources:

- Collection of research articles related to networked scholarship (blog post)
- Boolean searching basics (video)
- Effective internet searches (video)
- Using Twitter as a data source (blog post)

Information Literacy

David Rose, character on CBC's Schitt's Creek, is talking to his sister. He clutches his keys and phone to his face, exclaiming: "This is A LOT of information to process."

Information literacy requires learners to be able to "find, interpret, evaluate, manage and share information" found online (JISC, 2014). On the internet, information is abundant, and it can be created by anyone, for any purpose, without a requirement for fact-checking.

Online learners often spend a lot of time navigating information on the internet. While course content is typically provided to the learner in some form (lecture notes, videos, etc.), learners are often required to supplement that content with independent learning. Without the instructor in close proximity, online learners will often turn to the internet to find additional information or seek clarity on a concept. Particularly, as the instructor is often not readily available to answer questions or correct misinformation, the online learner needs to know how to find credible information online, and how to apply it to the exact scenario or concept they are learning.

As with face-to-face learners, online learners also need to know how to find, interpret and evaluate online information for the purposes of completing assignments. They need to understand how to conduct internet searches that will help them narrow in on the exact information they are looking for, and how to determine if information is credible. Since online learners consume so much of their course content online, they also need to know how to manage that information so that they can find it again when needed. This may involve saving academic papers using a citation software such as Zotero or RefWorks, using a social bookmarking tool such as Diigo or Pocket, or developing their own tracking system in OneNote or Microsoft Word.

The MOOC doesn't take an in-depth look at the skills required for *information literacy*. They identify "finding reliable sources of information" as a key skill for online learning, and they discuss internet searches as a common tool of online learning, but they don't provide any additional content to help the learner learn how to determine what is reliable, or how to conduct effective online searches. The learner is left to figure that out on their own. They do, however, require the learner to exercise *information literacy* skills at several points in the course. Activities at the end of each section often ask students to find information or resources on the internet to share with their classmates, such as "search the web and find definitions or examples of what is meant by the term knowledge" or "locate a YouTube video that demonstrates an example of one of the four learning theories presented in this section." Since it is not a graded assignment, however, learners

do not receive any feedback on the quality or veracity of the resources they share, unless a peer decides to provide assessment.

Additional Resources:

- How to evaluate credible sources (video)
- Navigating digital information (video)
- 10 ways to improve how you manage information (blog post)

CHAPTER 2: LEARNER PROFILES

Throughout the first section of this book, we have taken a broad, general view of the online learner. However, not all online learners are the same, and not all online learners come with the same level of digital literacy. Depending on a learner's background, life experiences, and life situation, they may have varying levels of digital literacy, and varying skillsets within these seven elements. Such differences mean each online learner's needs and experiences are unique.

In this section, we will meet four different learners: the traditional learner, the English language learner, the Indigenous learner, and the mature learner. We will explore their likely strengths and weaknesses with respect to digital literacy and discuss how their needs can best be supported. We will examine the curriculum and delivery of *Learning to Learn Online*, evaluate the ways in which the MOOC caters to these different learner profiles, and make recommendations for future course iterations.

It is important to understand the online learner as a general group. However, different learner profiles must be considered to ensure the more marginalized members of our communities have equal learning opportunities.

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Traditional Learner



Key Characteristics

- 18-24 years old
- Attending post-secondary full-time
- Enrolled in post-secondary directly after high school, or maybe after taking a gap year
- Do not have major life or work responsibilities, such as a full-time job or dependents

The traditional learner and online learning

For many traditional learners, taking an online course in college or university may be the first time they engage with online learning in a meaningful way. These learners have grown up in a digital world, having used digital tools at some point throughout K-12, and likely use digital tools daily to communicate with their social group. This has allowed them to develop some digital literacy, although many skills are often still lacking.

Traditional learners often have good *ICT* literacy. Since they grew up using technology and navigating the internet, they have familiarity with basic educational technologies such as word processing software, computers, and the internet. Moreover, their general familiarity with technology often means that they are able to pick up new technologies easily, and know how to problem-solve using internet searches. Traditional learners are likely also familiar with communicating with their social group online, through social media and messaging apps. However, they may not always be aware of professional communication standards, or know how to articulate academic reasoning and critical thinking. They may also struggle with communicating

for the purpose of collaboration, although this may be attributed to a lack of collaboration skills rather than the ability to collaborate online.

According to the MOOC, the online learner must learn independently: learners need to be able to organize their own schedules, decide how much time they will spend on course work, identify the information that they need and ensure its validity, and find ways to engage with others and establish connections. For a traditional learner who is used to a face-to-face system, these are all new skills. Previously, school schedules, teachers, and parents determined when they would learn and how much time they would spend on different topics. All information came straight from the instructor; there was no need to find outside resources on your own to clarify or further explore concepts, because the teacher was always readily available to answer quick questions. It wasn't difficult to engage with others, because peers were in the same room. Many traditional learners may be unfamiliar with effective study strategies in general, and this becomes amplified when learning in an online environment. They may simply passively consume course content (text-based content, videos, etc.) without employing strategies that will help them understand and remember and connect the dots. Traditional learners may also have not yet developed the self-regulation skills that are so important for online learning, and may struggle to make time to engage in course content and complete assignments.

The traditional learner and *Learning to Learn Online*

In many ways, the MOOC is well-suited for a traditional learner. While it doesn't go in-depth into every digital literacy a traditional learner may need support with, the content of the MOOC could help the traditional learner understand what to expect with online learning. In particular, the MOOC delivers much of its content through a lens of self-development, asking learners to think about what kind of learner they are, and what adjustments they may have to make in order to learn successfully online. Through reading about common attributes of online learning, differences between online and face-to-face learning, common tools of online learning, important habits and practices, and necessary communication skills, the learner can gain knowledge while also gaining a sense of which areas may need further development.

In many areas, the MOOC may not deliver everything that a learner needs in order to develop the digital literacy needed for online learning, but it is certainly a good place for learners to start.

Image credit: Photos by Brooke Cagle on Unsplash, Wes Hicks on Unsplash and Kyle Gregory Devaras on Unsplash

Indigenous Learner



Key Characteristics:

- In Canada, anyone with First Nations, Metis or Inuit heritage
- May or may not self-identify with, or choose to disclose, their Indigenous identity
- Varied age range, although are often mature learners
- Will typically be balancing educational role with multiple social roles
- May have dependents
- May require flexibility with deadlines in order to partake in cultural events

The Indigenous learner and online learning

Due to Canada's history of colonization, Indigenous learners have many unique needs and struggles with online learning. Many Indigenous communities are underfunded and under-resourced, and this includes their schools. The Indigenous learner may lack *ICT* literacy as they may not have grown up with adequate access to technology, and digital tools may not have been an integral part of their education. They may still struggle with this inequity, and have limited access to devices and to reliable internet connectivity.

Online courses are sometimes the only means of obtaining an education for Indigenous learners, especially those who live and work in remote communities, or those who require additional flexibility in order to balance educational and social roles. Remote learners who are isolated in small communities may have complex learning needs and might experience insufficient support from their family or community, who are unable to relate to their experience of post-secondary

and online learning. Indigenous learners are also struggling with complex historical trauma while attending institutions that are grounded in colonial practice.

Online courses generally utilize Western-dominant pedagogy, which may cause friction for the Indigenous learner. In order for an online course to be delivered in a culturally-relevant manner, and for Indigenous learners to have success, the 5 R's should be embedded in course design:

- Respect: The need to recognize and respect First Nations cultural norms and values.
- Reciprocity: Honouring student voice and choice, creating equitable relationships instead of instructor-centred knowledge transmission.
- Relevance: Learning should reflect the needs of First Nations culture and ways of knowing.
- Responsibility: Instructor and learner have a responsibility to uphold culture, as well as personal/social aspects of being.
- Relationships: Relationships are reciprocal between teacher and student, and should foster connections to community and self. (Kirkness and Barnhardt, 1991; Tessaro et al, 2018, p. 133-135)

The Indigenous learner and *Learning to Learn Online*

The MOOC supports the needs of Indigenous learners in several ways. The course focuses on asynchronous communication, which gives space for greater flexibility and allows learners to balance their educational role with their social roles. Furthermore, because the MOOC only offers one synchronous live session, which is recorded, learners with slower/lagging internet can still access all course content and not miss pertinent information. Finally, the MOOC was relatively interactive, and included video, online activities and discussions alongside each module.

The MOOC was certainly not developed with the 5 R's in mind; however, there are certain aspects that support several of the R's. The MOOC offers many opportunities for learners to communicate with each other and build a rapport, and the "welcome forum" at the beginning of the course fosters explicit connections between learners though it's "all about me" discussion post. This benefits all learners, but especially those who derive meaning from storytelling and relationship-building as part of their learning experience.

There are several ways that the MOOC could have increased culturally relevant content for Indigenous learners, including: including digital storytelling, acknowledging the barriers that many minority groups face when learning online, such as access to technology and including Indigenous professors, elders, or other knowledge holders in the videos and case studies.

Image credit: Photos by ruslanita on Adobe Stock, Fotos 593 on Adobe Stock, and Vibe Images on Adobe Stock

Mature Learner



Key Characteristics:

- 24 years old or older
- Returning to school after a long period away
- Have already spent several years in the workforce
- Have other major responsibilities, such as a full-time job or dependents

The mature learner and online learning

Mature learners are typically in a different stage of life than the traditional learner, and therefore have a specific set of needs when it comes to online learning. At the same time, the label of 'mature student' applies to a wide spectrum of learners, and the needs and digital literacy of learners within that group can vary widely.

Mature learners may not have a good grasp of ICT literacy. They may not have grown up around technology, and so are less familiar with common platforms and tools. They may be easily overwhelmed if multiple digital tools are being introduced to the course, and they may be less able to learn to navigate new tools by trial-and-error and to problem-solve any issues they encounter.

Mature learners may also need to fine-tune their learning skills, as they will have spent years away from a formal learning environment. They may struggle with organizing their schedule and dedicating time to coursework if they are simultaneously balancing full-time work and/or childcare. If they are in courses alongside a large group of traditional learners, they may also have difficulty engaging with their classmates and establishing connections.

Many mature learners, through their experiences in the workforce, will likely have the basic skills required by the *communications and collaboration* literacy, although they may be unfamiliar with how to apply those skills in a digital environment. They may be familiar with writing to convey a point, professional conduct in online spaces, and how to productively work in a team. They may also have the basic skills required by the *career & identity management* literacy. Again, they may not be familiar with how to apply these skills digitally, but it's likely that they understand how words and actions can impact reputation, and are familiar with networking. They are also likely more confident in their identity, in who they are as a person and what it is they care about, and so will have an easier time forming a distinct identity online.

The mature learner and *Learning to Learn Online*

In many different ways, the MOOC has features and content that support the needs of mature learners. Mature learners may find the 'Get Started' section quite helpful, as it introduces information about computer basics, internet basics, and how to navigate the course platform. They will also likely appreciate the clear instructions for all course activities, where care has been taken to explain not only the expectations of the activity itself, but also to provide details about how to navigate the digital tool required for the activity. As described in other sections, a large percentage of the content in the MOOC relates to learning skills, helping the learner understand the common attributes of, and skills and habits required for, online learning.

Many mature learners are choosing to participate in an online learning opportunity for a very specific purpose; they are looking to gain specific skills or learn a very specific set of knowledge that can help them further their career, or start a new career path. The structure of this MOOC makes it easy for them to do so. Learners have access to all content from the beginning of the MOOC, so they can choose to only engage in certain sections, if they wish. No activities are mandatory (unless you want to receive the final certificate), so a learner can choose to engage in discussions as much or as little as they'd like, can opt out of completing the end of module quizzes, and are not forced to engage in the "practice" and "explore" activities at the end of every single lesson page. It is worth noting that this MOOC was able to provide learners with greater flexibility because they were not completing the course for credit.

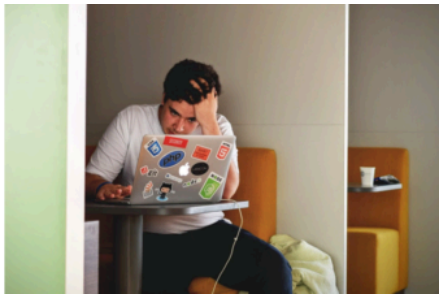
Finally, the course allows you to set your preferences for which emails and notifications you receive. A mature learner, who has a busy personal life consisting of multiple social roles, may benefit from receiving emails reminding them to continue engaging in the course, or of upcoming live sessions and deadlines. At the same time, they may wish to turn off notifications and emails

from the discussion boards, and only visit that content during the times they have designated for the course.

Image credit: Photos by Kelly Sikkema on Unsplash, Adeolu Eletu on Unsplash, and Javier Sierra on Unsplash

English Language Learner





Key Characteristics:

- Can be any age, though typically 18-23.
- Attending post-secondary full or part-time
- A student whose first language is not English
- Often immigrants or international students
- May be boarding and not living with family

The English language learner and online learning

English language learners (ELLs) face a dual challenge when participating in online learning, as they have to overcome the challenges inherent with online learning while also overcoming the challenges in learning in your second language. ELLs are typically trying to understand language acquisition and simultaneously develop their writing proficiency, and may struggle without the benefits of direct instruction, where feedback can be provided immediately. Many of these students have not had adequate exposure to the nuances of English in both spoken word and in written communication, and may struggle to participate in discussion forums, synchronous sessions or group projects to the same extent as someone whose native language is English. They may be less inclined to actively participate, choosing instead to observe peers' collaborative dialogue passively in order to better comprehend course content.

In addition to struggling with the language and communication, ELLs might not be used to the independent learning style associated with online environments. For some ELLs, this may be very different from the style of education they are used to. Additionally, they may not be able to get

support from family members if they are also ELLs. ELLs may not have the desired ICT skills required for online learning, and will need tutorials and scaffolded instructions (chunking) in order to comprehend content. Finally, ELLs may experience cultural conflicts between home and school, and have other socio-emotional challenges including exposure to trauma and PTSD.

English language learners and *Learning to Learn Online*

ELL learners may find many aspects of the MOOC to be supportive of their needs. The MOOC's "Get Started" module includes a "Welcome" page that begins with a detailed video introducing the main instructor and describing the course. The instructor speaks slowly and clearly in this video, and all others that follow. Although the pace might be too slow for traditional learners, ELL's will be able to comprehend the information more easily at this pace. Additionally, videos are hosted using YouTube, and learners are able to take advantage of the closed captions and the playback speed function. This module also includes a discussion forum with instructions to introduce oneself to the greater learning community, and a detailed section with tutorials on computer and internet skills. At the end of the course, a resource page is made available to encourage learners to continue working on their digital literacy skills, such as communication. These resources link to outside websites that offer further skill-building, especially in the areas of written and interpersonal communication.

The structure of the MOOC also caters to the needs of English language learners. The Canvas platform is well laid out and organized, and the sidebar includes visuals as well as text for easier navigation. Each of the sections follows a similar format of text-based content, activity, and discussion (exploration). This repetitive format enables the learner to focus on the content, and avoids any added challenges of figuring out where to navigate next or adjusting to newly introduced digital tools. Additionally, due to the mainly asynchronous course format, learners can learn content at their own pace, utilizing the course timelines as a means to organize and manage time spent learning online, and allowing learners to effectively balance other social roles.

Although the MOOC met most of the needs of ELL's, it neglects to include advice related to digital privacy and ethics, which may differ in other countries. Finally, the MOOC could benefit from the inclusion of a resource page dedicated to specific ELL needs such as Google Translate, Google Read and Write, and tutorials on slowing down video speed.

Image credit: Photos by Jhon David on Unsplash, Brooke Cagle on Unsplash, and Tim Gouw on Unsplash

CHAPTER 3: COURSE REVIEW

When developing an online learning experience that intends to teach learners the skills and knowledge required for digital literacy, high importance is placed on the learning content. However, the design and delivery of the learning activities are critical to the overall course experience: If learners are unable or unwilling to engage with the curriculum and content, learning outcomes are unlikely to be achieved.

In this section of the book, we're choosing to turn away from digital literacy for a moment, and instead examine the overall quality and effectiveness of the MOOC in its entirety. Garrison et al.'s (1999) Community of Inquiry (CoI) framework is used as the basis for our examination. The CoI model is a popular conceptual framework that aims to identify important factors in a quality online learning experience, and identifies three broad factors: teaching presence, social presence and cognitive presence.

Adapted from Garrison, D.R., Anderson, T., Archer, W. (1999) Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education* 2(2), 87–105

As an online learning experience, was the MOOC effective?

We believe that the MOOC set an excellent standard for online learning. As you'll read in the

following chapter, The course is able to successfully integrate all three aspects of the CoI framework, which is quite incredible, given the global, open parameters of this five-week course.

Image credit: Graphic by the Model eLearning team at Spring Arbour University

Teaching Presence

Ross Gheller from "Friends" shouts "I'm the teacher!" as he pushes through a crowded hallway

Teaching presence is defined as “the design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes” (Joo et al., 2011, p. 1655). There are three main components of teaching presence. The first is the design and organization of the course. This includes the selection, organization and presentation of course content, as well as the development of learning activities and assessment practices. The second component is course facilitation, which includes how an instructor communicates with their learners, how they create and engage in conversations, and the strategies they have for encouraging and eliciting critical thinking in their learners. The final component is direct instruction, which refers to the materials the instructor creates to convey content (Garrison et al., 1999; Joo et al., 2011).

The presence of a teacher is obvious throughout the MOOC, through both the design and facilitation of the course. The course, in its structure and navigation, is extremely well-designed. Course information is organized through four distinct tabs:

- **Home:** Where users can view the most recent updates from instructors and access to a toolbar with course deadlines, reminders, and completed tasks
- **Announcements:** Contains the most recent course updates and notifications
- **Modules:** Offers a direct route to the course content, as opposed to scrolling down from the Home tab
- **Discussions:** Contains all of the discussion forums throughout the course, as well as related content such as troubleshooting technology issues.

The layout of the content is clear and remained the same throughout the course; every page contained text-based content, a practice activity delivered using SoftChalk software, and an explore activity that was always either a discussion forum or used Padlet tool. The instructor outlines expectations for each module clearly and concisely, explaining the learning outcomes and what content areas are covered. In some cases, there may be more explanation than necessary, as each module contains both an introduction and an overview.

The presence of both the course instructor and the course inspirer is built into the content development of the course. Each module starts with a video introduction from the instructor, allowing the learner to develop a small connection with her. Unfortunately, the videos are filmed in a studio setting and come across as scripted, which limits the extent of connection and

relationship-building. Teacher presence is also built into the content through small headshot bubbles that accompany discussion post prompts at the beginning of each module, as well as small asides throughout the modules. These small photos add to the feeling that the course instructor and inspirer are alongside the learner throughout the course.

Both the course instructor and the course inspirer also retain an active presence throughout the course. The course inspirer is active in discussion forums, answering questions and helping to generate and monitor conversation. The instructors also create weekly reflection videos to think upon the course content and the conversation in the discussion board from the previous week. Oddly, in a five-week course, there were only three reflection videos created, so there was a lack of consistency in this exercise. The instructor also hosts a live, synchronous session halfway through the course which is delivered in a lecture format, including slide sharing. Unfortunately, this type of video-conferencing does not allow learners to interact directly with the instructor, and misses the mark on the collaborative potential of a video-conferencing session.

Social Presence

Social presence, the second factor in the community of inquiry model, refers to "the ability of participants to project their personal characteristics into the community, thereby presenting themselves to the other participants as 'real people'" (Garrison et al., 1999, p. 32). Social presence allows learners to feel comfortable sharing their thoughts, feelings and experiences with their peers. While social presence is sometimes considered to simply be peer interaction; however, that is an erroneous interpretation, and social presence is impacted by more than just interaction (Joo et al., 2011).

The MOOC provided multiple opportunities for learners to connect with each other in order to create an engaging learning experience. The "Welcome forum" at the beginning of the course encouraged learners to share their personal stories, read the personal stories of others, and create a shared experience with a global learning community. Throughout the entirety of the course, learners were able to share their thoughts and ask questions of and with their peers through various avenues:

- Replying to posts on the discussion forum
- Collaborating with one another through Padlet
- Following each other on social media, as well as follow and tweet the course-specific hashtag
- Posting in the course Q&A forum

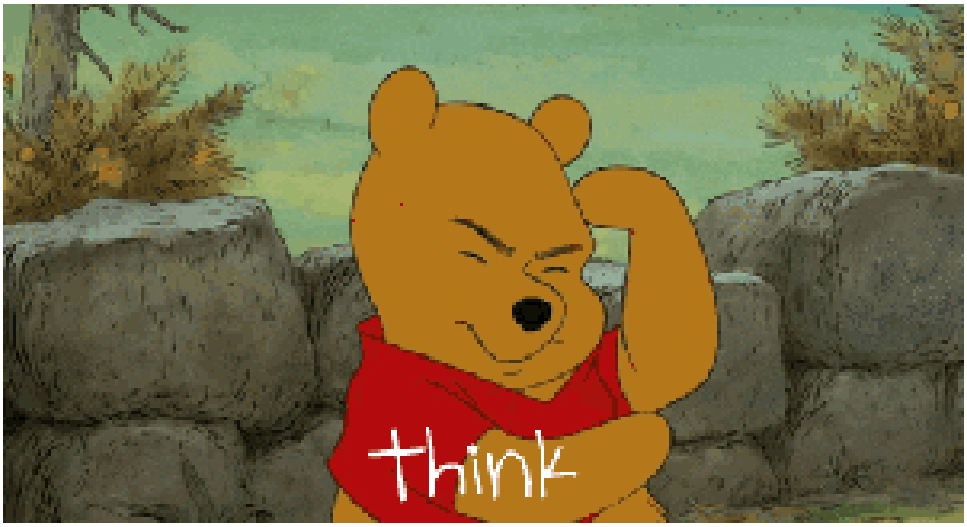
The MOOC also encouraged learners to set up their profile on the Canvas platform. Setting up a profile would mean that every discussion post would be accompanied by a photo of the author, adding an additional element of social presence to the discussion forums.

Overall, this MOOC sets an excellent standard for connected and collaborative learning. Both of the authors enrolled in online courses that utilized LMS platforms while completing their respective undergraduate degrees. In these instances, social presence was relatively low: discussions seemed limited, there were no collaborative tasks, and limited to no opportunities for students to connect: a truly passive learning experience. This was not the case in this MOOC.

The following suggested recommendations only add to the already successful level of social presence demonstrated by this MOOC:

- In the "Welcome forum" discussion post, learners could be encouraged to upload a small video, audio clip, or link to a personal digital media account (i.e. Twitter, Instagram, TikTok or a personal blog) along with sharing their personal story to further increase possible connections.
- Synchronous video-conferencing, using platforms such as Zoom, could be introduced more regularly, and could be used to foster conversations between learners instead of being used to deliver a lecture. This tool has transformative capabilities, including creating breakout rooms for small group discussion, chat messaging within the video to allow for multiple communication streams, streaming in through audio-only, and screen sharing so that learners and instructors can work through any complexities, share resources, and work collaboratively as part of one learning community.

Cognitive Presence



The final factor in the community of inquiry model is cognitive presence, the "exploration, construction, resolution and confirmation of understanding through collaboration and reflection" (Joo et al., 2011, p. 1655). In other words, cognitive presence is the intellectual and mental effort and processes required for learning. As cognitive presence is linked to collaboration and reflection, it is heavily influenced by the communication strategies and methods used within the course (Garrison et al., 1999).

With online courses, it can sometimes be easy to passively consume content and get to the end of the course without truly learning. The MOOC is structured in a way that requires active engagement from the learner, and therefore, cognitive presence.

Every section of the course ends with a practice activity that serves as a knowledge check and helps students confirm their understanding of the concept. Some of these practice activities include:

- **Pairing activities** which require the learner to match two related concepts, or pair together to parts of a phrase
- **Sequencing activities** in which the learner must put the words in the correct order to figure out the phrase or sentence that describes a concept
- **Sorting activities** require the learner to categorize items, such as sorting habits into 'good' and 'bad' categories, or identifying if certain practices are 'open' or 'closed.'
- **Selection activities** ask the learner to identify the correct items in relation to the concept presented
- **Drag and drop activities** in which the learner matches two concepts or phrases

The variety of different practice activities available helps enhance cognitive presence, as the learner does not feel as though the activities are repetitive. Many activities essentially ask the learner to perform the same type of cognitive tasks, but the different structure of the activity makes it seem new and different. However, some activities require greater cognitive presence than others, and are better suited to helping a learner check their understanding. Sequencing activities, for example, as well as some pairing activities, often assess a learner's ability to string together a coherent sentence more than they assess their knowledge of the content.

Every section of the course also ended with an explore activity. These activities, facilitated via either the discussion board or Padlet, required the learner to provide their perspective on the content, share an example from their life, or find example content from other places on the internet to share with their classmates. These activities forced the learner to actively engage with content; however, since this was not a graded course, a learner had no feedback on their participation in these activities, and it is possible that examples that they shared were not relevant and correct, but they would never know.

Learners were also provided with the opportunity to check their knowledge of the concepts introduced in a module through quizzes that were offered at the end of the module. Learners were allowed to complete these quizzes as many times as they wanted, an approach that has two immediate consequences. First, if a learner does not correctly answer a question the first time, they have an opportunity to shift their understanding and correct their knowledge through an additional attempt. Simultaneously, this approach also means that the learner may be getting correct answers simply through guessing, without making an effort to revisit material they didn't understand; limiting the number of attempts would increase the pressure that a learner feels to know the content before pressing 'start.'

Finally, the learning portfolio that learners were asked to develop throughout the course provided an opportunity for the learner to reflect on how the course content directly impacted them as a learner or teacher, and to identify ways they could incorporate their learning into their everyday life and practices. This was a further way for learners to apply knowledge in a way that was personally meaningful.

Conclusion

Not surprisingly, we're ending this project the same way we began: convinced that digital literacies are important for the online learner, and adamant that learners need support to develop the digital literacies required for online learning success. Assessing the Athabasca MOOC *Learning to Learn Online* through the lens of digital literacy opened our eyes to a few considerations we hadn't previously thought of, so we'd like to end this book with a few general observations.

Since online learning requires digital literacy, it is inherently not accessible to everyone. Even in a course that is about teaching learners to learn online, there is a need for learners in the course to have a basic level of digital literacy. The MOOC instructors did well structuring the course and providing resources to support learners in this regard, but it's worth noting that, for some, this limited access to technology will always be a barrier to participation.

Throughout the book, we have discussed ways the MOOC both implicitly, through various activities and discussions, and explicitly, through direct instruction, taught digital literacy. We couldn't help but wonder: Is one of these ways better than the other? Our consensus is no; both implicit and explicit learning is important when it comes to teaching digital literacy. A learner may be able to learn the steps involved in using a digital tool to create a video, for example, through direct instruction, but they will continue to learn so much more once they attempt to create their own video. We also believe that direct instruction, as related to the digital literacies, is important for the simple fact that it helps a student to be aware of digital literacy and what that entails. Introducing learners to the bigger picture of digital literacies can help them self-identify the skills they already have as well as the skills they lack, and can help them further understand when and how to implement these skills. Having the skills and knowledge that make up digital literacy is important, but an explicit understanding of what digital literacy is and entails is of equal importance to both the learner and the instructor.

At the end of the day, if we want to live in a world where all learners can thrive in online learning environments, we need to be engaging in conversations surrounding digital literacies.

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Accessibility Rubric

Web version evaluated on April 27, 2020 by the authors

Accessibility standards passed: 10/10

Accessibility evaluation rubric

Evaluation Criteria	Pass/Fail	Additional Information
Accessibility Documentation: 1. The organization providing materials has a formal accessibility policy. 2. The organization providing the materials has an accessibility statement.	Pass	Accessibility statement is present in the front matter
Content Organization 1. Chapter titles and section headers should be marked as headers and distinct from body text. 2. Table of contents should be present and allow navigation. 3. Page numbers should be present and correspond with print numbers. 4. Content should remain organized after user 'reflows' page.	Pass	Title and section headers are created with the relevant header mark up. Content is structured and stays organized during reflow.
Images 1. Non-decorative images should be marked with alternative text. 2. Images should be compatible with screen-reader and magnification software. 3. Decorative images should be marked with null alternative text.	Pass	All images have alternative text and are compatible with screen-reader and magnification software.
Tables 1. Tables should be simple and compatible with screen readers and magnification software. 2. Tables should be single-celled and contain ordered lists. 3. Tables should include markup that identify their rows and columns.		Tables are simple and headers are identified appropriately where necessary. Ordered lists are used.

Hyperlinks 1. In-book links should function and connect to their correct location in the text. 2. Hyperlinks should connect to a working webpage. Hyperlinks should preferably open pages in the same window. 3. All links should be distinct from body text. They should be descriptively titled and a different colour or italicized.	Pass	88/88 of the tested hyperlinks connect to the correct location and all of them are descriptively titled, underlined, and a different colour.
Multimedia 1. Closed captions should be provided for any video content. 2. Descriptive transcripts should be provided for any video content. 3. Audio or video player used for multimedia content should be compatible with assistive technology. 4. No content should flash more than 3 times per second.	Pass	No GIFS flash more than 3 times per second; alternative text has been provided for all GIFS.
STEM Content 1. STEM formulas and equations should be created with an editor compatible with screen readers such as LaTex or MathML. 2. If equations are inserted as images they should be described in an alt tag.	Pass	No STEM content

Font 1. Font should be adjustable and compatible with screen readers, magnification software and coloured displays. Text must remain accessible when any font size is selected. 2. All font should have zoom capabilities to 200%. 3. Font should meet standard size requirements (12 pt. body, 9 pt. footnote). 4. Alternative colour and line spacing adjustments should be available.	Pass	Font size is adjustable and conforms to all the required standards.
Colour Contrast 1. All information presented in colour should also be conveyed in text or other images. 2. Headers should meet WCAG AA contrast standards. 3. Body text should meet WCAG AA contrast standards. 4. Simple images should meet WCAG AA contrast standards.	Pass.	No content is colour dependent. WCAG AA standards are met by all the content.
Interactive Elements: 1. Interactive elements such as menus, examples, practice questions, etc., allow keyboard-only operation with and without assistive technology. 2. All instructions, error messages, and prompts are in text and compatible with assistive technology. 3. Text should allow for keyboard-only operation. 4. Text should be accessible on mobile devices.	Pass	Table of contents allows for keyboard-only operation and text is accessible on mobile devices. No other interactive elements are present.