ABSTRACT

DAMASCENO, CRISTIANE SOMMER. Massive Courses Meet Local Communities: An Ethnography of Open Education Learning Circles (Under the direction of Deanna P. Dannels.)

The new movement towards openness in education emerged in the 90s, inspired by the open source software trend (Yuan, Maceill, Kraan, 2008). UNESCO coined the term OER, or open educational resources, during a forum in 2002 (Ferreira, 2012; Gaskell, 2009). Since then, several stakeholders - higher education institutions, scholars, activists, non-profit organizations, among others - helped to spread the OER concept across the globe. The OER movement has at its core the ideal of democratizing access to education; however, there are few empirical studies looking at how individuals are appropriating these open educational resources in informal learning settings. Thus, this dissertation approaches conversations about the limits and possibilities of OER through an ethnography of the Learning Circles project carried out by the Peer 2 Peer University and the Chicago Public Library (USA). Learning Circles are face-to-face study groups for people who want to take massive open online courses together. This project is particularly interesting because it attracts an audience that does not necessarily have easy access to digital tools nor experience with online learning. Thus, Learning Circles contemplates the digital divide, one of the biggest challenges of the OER movement.

In my explorations of the Learning Circles, I asked four research questions: 1) How do interactions between project coordinators, facilitators, students, OERs, and digital technologies inform Learning Circles?; 2) What features of Learning Circles support or detract from students' participation in their groups? 3) What characterizes students' and facilitators' participation in the Learning Circles?; 4) How do students and facilitators

appropriate open educational resources and digital technologies in their learning processes? My findings suggest Learning Circles opened new pathways for adult learners by easing digital divides, offering a supportive learning environment, stimulating intellectual autonomy, and favoring the exchange of competencies among novices.

I built my research questions on a literature review about the OER movement and the Learning Circles project; a conceptual framework grounded in social theory of learning (Lave & Wenger, 1991; Wenger, 1998), combined with notions of space, society, communication, technology, power, and agency emergent from the work of scholars in the fields of communication, cultural studies, and science/technology studies (Carey, 1975, 2008; Castells,1998, 2000a, 2000b, 2000c, 2010, 2013; de Souza e Silva, 2006; Foucault, 1982; Latour, 1988, 1992, 1996, 2005; Slack & Wise, 2014). I employed an ethnography that combined embodied and virtual observations, semi-structured interviews, and artifact collection. I used the constant comparison method (Glaser, 1965) to analyze my data.

Finally, in my conclusion chapter, I argued that Learning Circles increased students' agency as self-guided learners. As a consequence, they also increased these learners' chances of joining other communities, such as a higher educational setting, distinct study groups, new jobs, etc. Learning Circles is an evolving initiative, and project coordinators need to make sure they support volunteers and foster meaningful interactions in the study groups. It is not likely that Learning Circles will substitute traditional Higher Ed institutions, but their model can integrate a networked educational model for the 21st century.

Massive Courses Meet Local Communities: An Ethnography of Open Education Learning
Circles

by
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A dissertation submitted to the Graduate Faculty of
North Carolina State University
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

Communication, Rhetoric, and Digital Media

Raleigh, North Carolina

2017

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DEDICATION

To Deanna Dannels

For encouraging me

to always be humble and hopeful

in the best *Freirian* spirit

BIOGRAPHY

Cristiane Sommer Damasceno is originally from Brazil. She majored in journalism from São Paulo State University (Universidade Estadual Paulista Júlio de Mesquita Filho), and moved to the United States to pursue a master in Communication at North Carolina State University. Her work combines traditional and innovative approaches to qualitative methods to study digital learning cultures. During her doctoral program at North Carolina State University, she collaborated with faculty and peers in several projects. She has experience teaching communication courses and is an alumna of two nationally recognized programs – Certificate of Accomplishment in Teaching (CoAT) and Preparing the Professoriate (PTP).

ACKNOWLEDGMENTS

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This is not a traditional *learning environment, but it is a* tradition *that I would*

like to start: a learning circle without walls. Without walls, without

limitations, without barriers, where people can learn, and make connections

for life in various ways. We need a true understanding that education can be

done anywhere. Lives can be changed at any place.

(Paula, Public Speaking circle)

Paula was a learner who joined one of the Learning Circles in Chicago during the fall

of 2015. In our interview, I asked how Learning Circles differed from other educational

settings. Her answer, which I transcribed above, resonates with some of the core values of

open education: access to resources, low-barriers to information, a sharing culture, and

individuals' empowerment. The Open Educational Resources (OER) movement started in the

early 2000s when UNESCO organized a forum around the topic. OER advocates aim to

democratize access to education. Figures such as David Wiley, Dave Cormier, and Bryan

Alexander are precursors of the movement. The first one created the Open Content Project

inspired by the open software trend (Yuan, Maceill & Kraan, 2008). The two others

pioneered experiments with virtual, collaborative, and large-scale courses in Canada (Daniel,

2012) before American universities started to offer their modified versions of massive open

online courses (MOOCs).

Even though the OER movement aims to democratize education, there are few

empirical studies on the uses of these resources in informal learning settings. Thus, I

approach this conversation through an ethnographic exploration of the Learning Circles

sponsored by Peer 2 Peer University, occurring at public libraries in Chicago, Illinois[1].

Learning Circles are free face-to-face study groups for people who want to take MOOCs together. A group facilitator, normally a volunteer, keeps conversations flowing in these groups. Learning Circles are especially interesting because they attract students with limited access to digital technologies and little experience with online learning. The library provides them with access to digital tools and technical support. The digital divide is one of the main challenges for the OER movement. Many individuals around the globe cannot benefit from free online resources due to lack of skills, access to computers and the internet. Learning Circles are one of the first OER projects to address the digital divide in adult learning situations in the United States. The novelty of this initiative explains the lack of studies on this model.

The empirical research on open educational resources that has been done, though, follows two trends. First, it addresses how learners and instructors are using OER in formal settings, such as K-12 classrooms and universities (de los Arcos, 2014; de los Arcos et al., 2014; Farrow et al., 2015; Harley et al, 2006; Hussain, et al, 2013; Hylén, 2006; Jhangiani et al., 2016; Lane et al., 2009; Masterman et al., 2011; Masterman & Wild, 2011, Petrides et al., 2008; Pitt, 2015; Weller et al., 2015). Second, it looks at MOOCs exclusively. There are few studies about OER use in informal learning contexts (Bulger, Bright, & Cobo, 2015; Chen & Chen, 2015; Li et al., 2014; Oura et al., 2015), especially, settings with the unique configuration of Learning Circles. Therefore, I explore the Learning Circles and the ways in

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[1] Peer 2 Peer University and the Chicago Public Library enabled this project with the financial support of the Knight Foundation. Coordinators gave me permission to disclose the names of their institutions.

which participants interact with technologies and each other; Learning Circles features; participants' engagement with the groups and their appropriations of OER. I ask four research questions: 1) How do interactions between project coordinators, facilitators, students, OERs, and digital technologies inform Learning Circles?; 2) What features of Learning Circles support or detract from students' participation in their groups? 3) What characterizes students' and facilitators' participation in the Learning Circles?; 4) How do students and facilitators appropriate open educational resources and digital technologies in their learning processes?

My research questions are generated from and build on a broad literature review of open education and the Learning Circles; a conceptual framework that combines social learning theories, cultural studies, and science/technology studies, and a methodological framework that uses an ethnography of hybrid spaces (de Souza e Silva, 2006). Therefore, I divided the first portion of this dissertation into three chapters. The literature review provides a historical panorama of the OER movement from the early 90s to the recent MOOC trend. I compare how traditional OER and massive courses differ from each other and discuss the critiques that MOOC providers have received from educators, scholars, and activists. I also acknowledge the contributions of the main agents influencing the OER movement and discuss barriers for democratizing education. Then, I describe the Learning Circles project and situate it in the broader framework of open education. In the final portion of the chapter, I present my research questions.

The second chapter[2] explores a social theory that defines learning as participation in communities of practice (Lave & Wenger, 1991; Wenger, 1998). Thus, novices become experts as they interact with other group members throughout time. This approach emphasizes that learning cannot happen in a vacuum and, for this reason, it is socially situated. Because the literature on social theories of learning does not fully contemplate current configurations of networked groups, I also use the work of communication, cultural studies, and science/technology scholars who explore space, society, culture, technology, power, and agency (Carey, 1975, 2008; Castells,1998, 2000a, 2000b, 2000c, 2010, 2013; de Souza e Silva, 2006; Foucault, 1982; Latour, 1988, 1992, 1996, 2005; Slack & Wise, 2014).

The methods chapter describes my ethnographic framework, and I debate how my choices fit the study of networked learning communities. I conducted observations across hybrid spaces (de Souza e Silva, 2006) and followed traces of interactions. After presenting my methodological framework, I describe my field site, give details on the Learning Circles project, and on specific study groups. I also explain in-depth my data collection process and participants in this study. In the final portion of the chapter, I discuss my data analysis and the constant comparison method (Glaser, 1965) that allowed for a thematic examination that answers my four research questions.

I divided my results into four chapters. Chapter 5 explores *interactions*. It describes how Learning Circles structured students' routines and also created tension points. Within the groups, students and facilitators constantly negotiated their roles as the Learning Circles

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[2] I placed my literature review before the conceptual framework given the novelty of the Learning Circles model. Thus, I describe the project before presenting the grounding concepts that guide my work.

offered a distributed model of expertise. Chapter 6 looks at *supporting and hindering features* of the Learning Circles. On the one hand, low stakes evaluation, face-to-face interactions, and intellectual diversity contributed to participants' progress. On the other hand, participants perceived the lack of a content expert as a challenge in their groups. Chapter 7 scrutinizes *participation* and describes four distinct actions. Sharing learning resources, relying on self-motivation, leaving comfort zones, and caring for each other constituted the main patterns for engagement in the study groups. Chapter 8 talks about *appropriations of OER and digital technologies.* Participants used materials selectively, relied on additional learning resources, adapted existing content, and dealt with limited resources.

In my discussion chapter, I argue that Learning Circles opened new pathways for adult learning. Four points sustain this new pathway: the project eased digital divide challenges; students and facilitators nurtured supportive learning environments; engagement within the study groups allowed the cultivation of independent thinking; and interactions favored the exchange of knowledge among novices, in which informal learning occurred within facilitated apprenticeship relationships. Thus, Learning Circles created an experience that differed from traditional classroom settings and offered participants the opportunity to learn how to navigate distributed contexts and relationships. As a consequence, learners potentially developed competencies that will help them move across distinct educational settings. It is important to highlight that Learning Circles are a project under construction, so coordinators need to make sure that they support volunteers and offer tools that maximize meaningful interactions in these groups.

The last chapter concludes this work. I refer to the opening quote from Paula and argue that the Learning Circles model still needs improvements to fit a scenario where it can effectively foster learning "without walls, without limitations, without barriers, where people can learn, and make connections for life in various ways" (Paula, Public Speaking circle). Learning Circles' main challenge moving forward is to maximize meaningful learning experiences to students and facilitators and support their volunteers. These actions will help to establish their relevance to local communities and justify investments from new partners. Results and implications from this work can contribute both practically and theoretically: to project coordinators of these types of educational initiatives, and to engage in scholarly conversations in the field of communication, education and science/technology studies. This dissertation, ultimately, offers an empirically informed reflection on the challenges and possibilities for OER in the 21st-century educational landscape.

Chapter 2 - Literature Review

This chapter starts with a historical panorama of the open educational resources movement from the 90s to the recent MOOC trend. This overview highlights challenges and opportunities for openness in education. Even though there are critiques to these initiatives, especially MOOCs, they rely on the premise that the internet can make access to educational content easier and improve people's lives. After this historical overview, I explore the literature on the digital divide and open learning. Next, I describe the Learning Circles project and how it contemplates digital divide concerns. There are few studies on people's uses of these resources in informal learning settings, so the final portion of this chapter delineates my research problem and questions.

OER Origins, Definition, and Influences

An international UNESCO forum in 2002 coined the term 'Open Educational Resources' and gathered individuals from all over the world interested in democratizing education (Ferreira, 2012; Gaskell, 2009). The OER movement gained more support in 2005 when the UN received funding from the Hewlett Foundation to create a wiki for volunteers around the globe to work together (Open Educational Resources, nd). Two years later, the Shuttleworth Foundation partnered with the Open Society Institute to organize a meeting and receive input from open education leading proponents (Open eLearning Content Observatory Service, 2008). The gathering resulted in the Cape Town Open Education Declaration, a document that proposes a shared vision for the OER movement:

> The Declaration is part of a dynamic effort to make learning and
> teaching materials available to everyone online, regardless of income

or geographic location. It encourages teachers and students around the
world to join a growing movement and use the web to share, remix and
translate classroom materials to make education more accessible,
effective, and flexible. (Open eLearning Content Observatory Service,
2008, para. 2).

Hundreds of learners, educators, policymakers, and foundations across the globe
signed the Declaration. The online list of signatures displays individuals and institutions from
Brazil, Canada, Germany, Iceland, India, New Zealand, Nigeria, Russia, South Africa, the
United Kingdom and the United States, among others.

The year of 2012 also marked a defining moment for the OER movement. UNESCO
hosted the World Open Educational Resources Congress in Paris. They released a declaration
that called on governments around the world to "openly license publicly funded educational
materials for public use" (UNESCO website, n.d., para. 2). UNESCO's website has versions
of the document translated into 17 different languages. The declaration recommends that
national governments:

- Foster awareness and use of OER

- Facilitate enabling environments for use of Information and
  Communications Technologies (ICT)

- Reinforce the development of strategies and policies on OER

- Promote the understanding and use of open licensing frameworks

- Support capacity building for the sustainable development of quality
  learning materials

- Foster strategic alliances for OER

- Encourage the development and adaptation of OER in a variety of languages and cultural contexts

- Encourage research on OER

- Facilitate finding, retrieving, and sharing of OER

- Encourage the open licensing of educational materials produced with public funds (van Mourik Broekman et al., 2014, p. 42).

In summary, the Paris Declaration asks national governments to invest in the creation and use of OER. The movement defines these teaching, learning, and research resources as materials that live in the public domain or have been released under open intellectual property licenses, such as courses, textbook, videos, software, etc. (Atkins, Brown & Hammond, 2007). The definition encompasses material resources and techniques, focuses on developing high-quality content and proposing innovative approaches to education (Atkins, Brown & Hammond, 2007). The term's broadness makes it possible to include diverse projects under the OER umbrella, such as OpenCourseWare, the Open Course Library, Khan Academy courses, TED talks and collaborative sites like Wiki Educator. Here it is important to highlight that OER do not have to come in a digital format; hence, any medium can support these resources (Open Washington, 2016a). Their defining element is the intellectual property status that allows for free distribution, use, and adaptation. For this reason, OER can support face-to-face, hybrid, or online learning environments. It also can fit diverse pedagogical perspectives (Panke & Seufert, 2013), such as the sociocultural or the information processing.
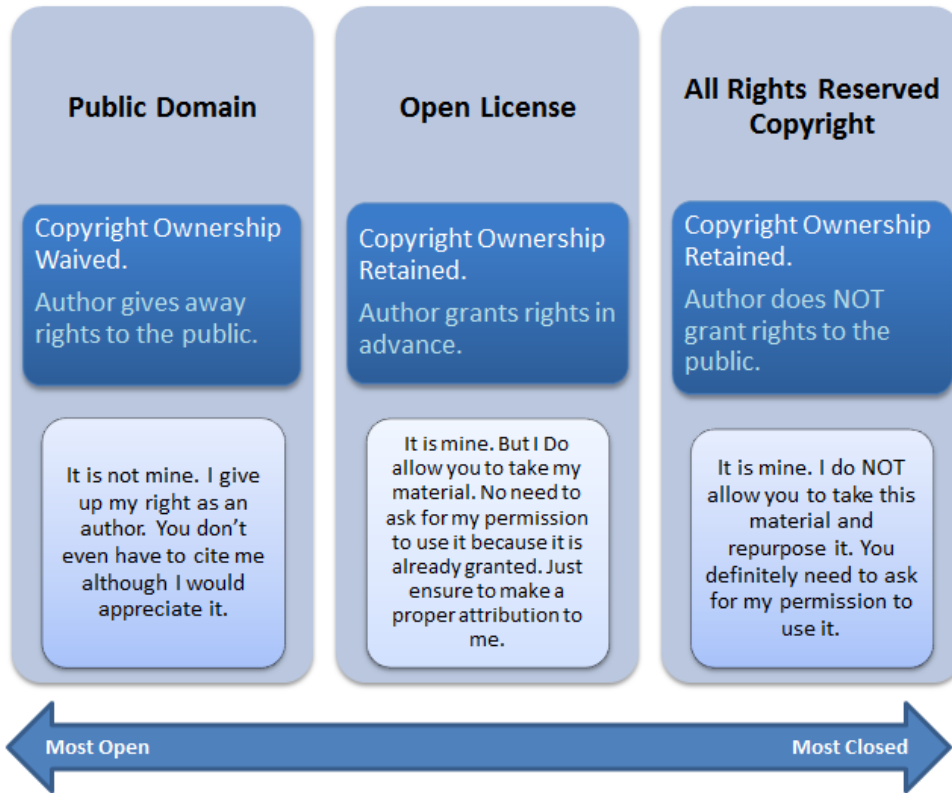
Figure 1.1. Copyright's Spectrum. This image compares Public Domain, Open License, and All Rights Reserved Copyright (Source: Wikimedia Commons).

Icons	License	Guidelines
	BY	Attribution: Others can copy, distribute, perform and remix your work if they credit your name as specified by you.
	ND	No Derivatives Works: Others can only copy, distribute, or perform verbatim copies of your work.
	SA	Share Alike: Others can distribute your work only under a license identical to the one you have chosen for your work.
	NC	Non-commercial: Others can copy, distribute, display, perform or remix your work but for non-commercial purposes only.

Figure 1.2. Key elements. This figure shows the four key elements of the Creative Commons License (Open Washington, 2016b).

License icon	Attribution	License Elements
	Attribution: CC BY	This license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation. This is the most accommodating of licenses offered. Recommended for maximum dissemination and use of licensed materials.
	Attribution-NoDerivs: CC BY-ND	This license allows for redistribution, commercial and non-commercial, as long as it is passed along unchanged and in whole, with credit to you.
	Attribution-NonCommercial-ShareAlike: CC BY-NC-SA	This license lets others remix, tweak, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms.
	Attribution-ShareAlike: CC BY-SA	This license lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under the identical terms. This license is often compared to "copyleft" free and open source software licenses. All new works based on yours will carry the same license, so any derivatives will also allow commercial use. This is the license used by Wikipedia, and is recommended for materials that would benefit from incorporating content from Wikipedia and similarly licensed projects.
	Attribution-NonCommercial: CC BY-NC	This license lets others remix, tweak, and build upon your work non-commercially, and although their new works must also acknowledge you and be non-commercial, they don't have to license their derivative works on the same terms.
	Attribution-NonCommercial-NoDerivs: CC BY-NC-ND	This license is the most restrictive of the six main licenses, only allowing others to download your works and share them with others as long as they credit you, but they can't change them in any way or use them commercially.

Figure 1.3. Creative Common Licenses. This figure describes the six types of CC Licenses. (Open Washington, 2016b).

Creative Commons are the most typical open license used for OER (Figures 1.1, 1.2 and 1.3). Larry Lessig, law professor at Harvard, founded a nonprofit organization called Creative Commons in 2001 to develop open licenses that facilitated the sharing of online materials such as blogs, photos, films, books (Creative Commons, nd). Currently, the Creative Commons Affiliate Network encompasses over 500 researchers, activists, legal consultants, educators, policy advocates, and volunteers who serve as Creative Commons representatives in more than 85 countries. They work with local institutions to develop

region-specific approaches to copyright and intellectual property issues (Creative Commons, nd). The creators of these licenses used an innovative *three-layer design*. As the Creative Commons website explains, each license begins as a traditional legal tool that uses technical language and format. Educators and scientists usually do not have legal expertise, but they can find these licenses in a format (Common Deeds) accessible to lay people. Finally, the license is also available in a format that software systems and search engines can read. In summary, these licenses facilitate sharing online material, not only because of their legal content, but also their user-friendly format.

Creative Commons licenses deal with authorship, adaptation, circulation, and commercial use. The images above reveal that there are six different types of copyright restrictions but, ideally, they should allow users to reuse, revise, remix and redistribute materials (Duval & Wiley, 2010). Amiel (2013) explains that, in practice, it becomes a challenge to remix resources with different copyright restrictions. His experiment of creating an OER Handbook proved to be problematic because of licensing discrepancies. Nevertheless, Creative Commons are broadly used by OER producers around the globe because they facilitate information sharing.

It is possible to attest that open education is gaining momentum since the UNESCO forum in 2002. According to Wiley, as of 2006, seven universities in the United States offered OER programs. Outside the US, prestigious universities in China, France, and Japan were investing in these types of projects. Other countries like Australia, Brazil, Canada, Hungary, India, Iran, Ireland, the Netherlands, Portugal, Russia, South Africa, Spain, Thailand, the UK, and Vietnam were experimenting with open education on a smaller scale

(Wiley, 2006). In an OER achievement report of 2007, Atkins et al. estimate a total of $68 million in grants between 2002 and 2006 for open initiatives in several countries. Thus, these numbers suggest that UNESCO's efforts to popularize the concept of *openness* in education has been successful.

It is important to highlight that the UN did not start the movement towards openness even though this global organization helped to spread it. In fact, the Open Educational Resources movement emerged from a techno-cultural environment in the late 1990s that promoted open software, open knowledge, and peer collaboration. In 1998, Eric Raymond and Bruce Perens founded the Open Source Initiative (OSI), an organization dedicated to promoting open-source software. One year later, Raymond published *The Cathedral and the Bazaar*, a book in which he defends the idea that decentralized collaboration can produce better software than centralized structures with top-down dynamics. Raymond alluded to the notion of peer production even though he did not use this expression in his book. In fact, law professor Yochai Benkler (2002) coined the term *commons-based peer production* in an article called *Coase's Penguin, or, Linux and The Nature of the Firm*. This paper explains why peer production emerges in networked environments and Benkler (2006) further develops this notion in a book called *The Wealth of Networks*.

These ideas started to also influence educators, and, in 1998, David A. Wiley - a professor of Instructional Psychology and Technology at Brigham Young University - created the Open Content Project inspired by Raymond and Perens' Open Source Initiative (Yuan, Maceill, Kraan, 2008). He targeted his website to educators who wanted to share resources through the Web. The Internet Archive is another project from the 90s that helped

to bridge the open software movement and education. Brewster Kahle created a digital library publicly accessible for anyone (Thelwall & Vaughan, 2004). Following a similar rationale, MIT released the Open CourseWare in 2001. Yochai Benkler's ideas also represent an important inspiration for the visibility of peer-learning in educational discourses. Innovators such as Cathy Davidson, David T. Goldberg, and Howard Rheingold often cite his work. For instance, in a book sponsored by the McArthur Foundation, Davidson and Goldberg attest that Higher Education institutions can better fit the demands of the 21st century by adopting peer-to-peer models:

> Corporatizing the institution or even reverting to a conventional institutional model subverts the self-organizing operations of the field—those that are the most like the Linux model of self-motivated, open access, self-sourced, and self-resourced collaboration and creativity or the industrious and even playful collaborative operations that Yochai Benkler ascribes to Coase's penguin. These kinds of peer-to-peer institutions are what promise to be most responsive to issues of innovative pedagogy (Davidson & Goldberg, 2009, pp. 130, 131).

It is important to highlight that peer interactions can improve learning experiences, but also decrease the costs of education. Thus, this pedagogical approach does not only align with a networked mode of production but also responds to economic needs for cutting expenses. The MOOC trends that I discuss in the next section also rely on peer learning and has been criticized as an attempt to automatize the teaching functions of Higher Education. I start with a historical overview of these massive platforms and then discuss critiques to them.

MOOC Trend

The OER movement paved the way for the creation of massive open online courses (EpRSLibrary, 2013). These massive initiatives receive great media attention (Grossman, 2013; Kolowich, 2013; Pappano, 2012; Selingo, 2014; Winterhalter, 2014). MOOCs offer school-like experiences, such as lectures, labs, discussions, and tests for little or no cost, through virtual platforms (DeBoer et al., 2014). Two Canadian professors, Dave Cormier and Bryan Alexander, coined the term in 2007 to describe a semester-long class that involved 25 fee-paying students and 2,300 other individuals from outside the University of Prince Edward Island (Daniel, 2012). Initial experiments with a large group of people focused on establishing connections between learners and offered participants the possibility to remix and repurpose materials (Downes, 2006, 2011Kop, 2011). Thus, they aligned with principles of the OER movement.

Despite educators' experimentations with MOOCs in the mid-2000s, the topic just gained international media attention around 2011, when American Ivy League Universities started to use this new educational format. Stanford, MIT, and Harvard were the first ones to develop massive open online courses to the general public. The frenzy around these projects became even greater when they released enrollment numbers. For instance, 58,000 students subscribed to one of the firsts Stanford massive courses (Daniel, 2012). As a consequence, *The New York Times* proclaimed 2012 "The Year of the MOOC" (Pappano, 2012). Bulfin, Pangrazio, and Selwyn (2014) conducted an analysis of mainstream media coverage on the topic for two years in the US, UK, and Australia and reached the conclusion that popular discussions on MOOCs surpassed actual use and participation in 2012.

After Stanford's first massive course, non-profit and for-profit organizations, such as edX and Coursera were created to offer more of these large-scale classes (Figure 1.4). MOOC providers usually partner with Higher Education institutions to offer courses through content delivery platforms. For instance, Coursera "reported registering 2,8 million students in March 2013, partnerships with 62 high prestige Universities and courses in Spanish, Italian and Chinese" (Empson, 2013). MOOC websites state that self-guided learning and peer-learning ground their pedagogical model. Unlike earlier initiatives, these enterprises focus more on scalability and, for this reason, Stephen Downes (2012) proposed the terms cMOOCs and xMOOCs to distinguish the two models. The first approach builds learning communities that collaborate and remix content. The second, targets content delivery at large scales.
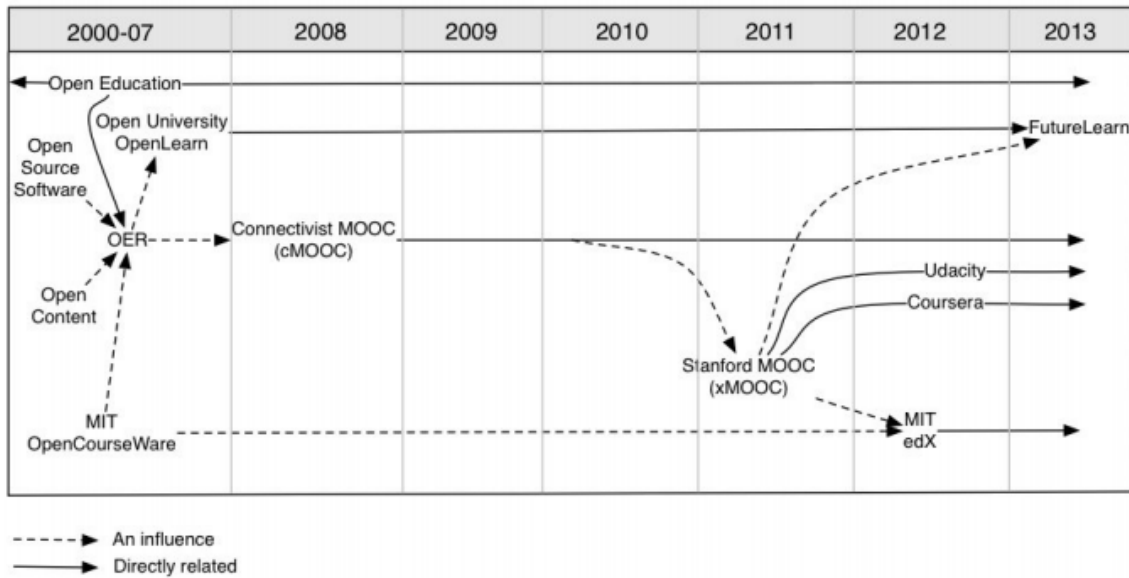
Figure 1.4. MOOC timeline. This figure displays a chronological evolution of massive courses from their origins in the OER movement to the creation of MOOC providers (Yuan & Powell, 2013).

Despite the association of MOOC providers and universities, academics have criticized their model. Ian Bogost (2012), for instance, states that these courses are not actually open, but just free: "Generally speaking, it's important to remember that "openness" is less often a virtue or even an activity than it is a declaration, a rhetorical framing, a kind of branding. It's often used to make something appear open that isn't" (n.p.). Along the same lines, Atenas and Haverman (2013) also state that openness in MOOCs refers only to enrollment and that it is problematic to believe that these massive platforms are an evolution of traditional OER. Wiley (2012) also believes that MOOCs can hinder the OER movement because people can start conflating free access with openness.

Several scholars also perceive MOOCs as an attempt to automatize the teaching functions of Higher Education. Echoing David Golumbia's critiques, van Mourik Broekman et al. (2014) urge educators to understand that the creation of massive open online courses is a strategy to reduce each component of Higher Ed to instrumental and economic terms. MOOCs follow a trend towards *learnification* in education that involves "the translation of everything there is to say about education in terms of learning and learners" (Biesta, 2009, p. 3). Thomas and Brown promote this approach in a book called *A New Culture of Learning*. In the networked environments of the 21st century "the classroom as a model is replaced by learning environments in which digital media provide access to a rich source of information and play" (Thomas & Brown, 2011, pp. 37, 38). The problem with discourses about collaborative and self-guided education lies on the fact that it often pretends to erase power differences (Santos, 2008; Van Dijck & Nieborg, 2009) and overestimates people's ability to be self-guided learners (Santos, 2008; Knox, 2013) This scenario raises quality concerns.

Jeremy Knox (2013) believes that MOOCs can create a two-tiered system in which some privileged individuals will have access to regular classrooms and instructors, and others will receive a lower-quality education.

Low-quality refers not only to the absence of in-person instructors but also to the massive character of these courses that target generic individuals and do not take into consideration local specificities (Fyfe, 2016; Jaschik, 2013; Nakamura et al., 2014; Santos, 2008). Alexandra Juhasz (as cited in Jaschik, 2013) highlights that xMOOCs adopt a top-down and, sometimes, elitist approach. Along the same lines, Anne Balsamo criticizes the idea that MOOCs allow students to learn from superstar professors: "The idea of the one best talking head, the best expert in the world, that couldn't be more patriarchal" (as cited in Jaschik, 2013, np). Santos (2008) explains that MOOCs offer little opportunities for regionalizing knowledge. She argues that more important than offering *equal access* to knowledge is to create educational opportunities grounded on the *needs of local communities*. Hence, there is strong opposition to the MOOC model in academia.

It is important to highlight that there are also advocates of MOOCs. They see these platforms as powerful tools for changing Higher Education in the next decades (Yuan & Powell, 2013). Advocates also believe that these initiatives can help address budget constraints for education (Carey, 2013). Also, commercial organizations, such as Google, Nvidia, and Microsoft, are partnering with MOOCs and exploring new ways to deliver lessons (Yuan & Powell, 2013). Likewise, some universities are using MOOCs to experiment with flipped classrooms on their campuses (Yuan & Powell, 2013). In summary, the topic of MOOCs raises debates about the future of Higher Education.

Despite MOOCs' promises, their potential clashes with digital divide issues. The online nature of these courses requires a certain level of digital literacy. Thus, they are not accessible to everybody, even though they are free. The digital divide also imposes one of the biggest challenges to the OER movement.

Digital Divide

The digital divide is a broad term that usually refers to any inequality pertaining to technological gaps (Sassi, 2005). *Los Angeles Times* journalists used the expression for the first time in 1995 to describe the information "haves" and "have-nots" in K-12 education (Epstein, 2011). In 1999, the term was first used in an official report from the American government (Epstein, 2011). Since its first appearance, many scholars realized that the concept could not be treated as a mere dichotomy of access/non-access to technology (Epstein, 2005; Rohs & Ganz, 2015; Sassi, 2011; Warschauer 2002). The digital divide is a multidimensional phenomenon. The literature connecting the OER movement and the digital divide focuses on three dimensions: access, skills, and participation.

The access gap is the most basic aspect of the digital divide. It refers to available connectivity, equipment, and software (Daniel & Mackintosh, 2008). Many factors contribute to this type of inequality, such as governmental restrictions to the internet, lack of investments in infrastructure, geographical location (e.g. rural versus urban areas), among others. The literature highlights that mobile devices expand internet use in impoverished areas, especially in developing countries (Ally & Samaka, 2013; Daniel & Mackintosh, 2008). However, Warschauer (2002) explains that access should be understood beyond the binary of have/have not. It needs to take into consideration the quality of access:

There is not one type of ICT access, but many; the meaning and value of

access varies in particular social contexts; access exists in gradations, rather

than in bipolar opposition; […] and acquisition of ICT access is a matter not

only of education, but also of power (Warschauer, 2002, para. 46).

Consequently, the internet experience of an owner of a laptop, smartphone, tablet, and

high-speed internet is different from someone who just uses public computers. Scholars often

discuss the digital divide when comparing developed and developing nations. However, Rohs

and Ganz (2015) remind their readers that the access gaps also exist within countries. They

explain that differences relate to several factors, such as gender, age, employment,

educational background, and household net income.

Scholars acknowledge that access alone does not guarantee that people will use open

educational resources. Little or lack of digital literacies can be an impediment for online

engagement (Lane, 2009; Liebenberg et al., 2012; Sánchez-Elvira Paniagua et al., 2013;

Yuan & Powell, 2013). Sánchez-Elvira Paniagua et al. (2013) describe seven basic digital

competencies: information management, collaboration, communication and sharing, creation

of content knowledge, problem-solving, evaluation, and technical operation. These skills

have some overlap with the framework by Jenkins et al. (2006). According to them,

individuals in a networked age need to nurture the ability to experiment with their

surroundings as a form of problem-solving; sample and remix content media; shift their

attention focus as needed; interact with tools to expand mental capacities; follow stories

across multimedia platforms; search, synthesize, and disseminate information. Selber (2004)

adopts a different approach by dividing digital competencies into three categories. Functional

literacy allows individuals to operate computers. Critical literacy enables them to understand the logics governing digital networks. Rhetorical literacy connects the two previous categories and prompts individuals to engage with different types of audiences. All these frameworks differ to some extent, but they emphasize the ability to deal with digital tools and engage with people/information online.

Participation is the final prominent dimension of the divide in the OER literature. This aspect refers to using digital networks in productive ways. The use of internet depends not only on skills but also dispositions. For this reason, "differences in cultural capital, being habitus and skills, which are developed by socialization and education, are often held to be responsible for different use practices of digital media" (Rohs & Ganz, 2015, p. 5). A Pew Research Report (Horrigan, 2016a) reveals that the adoption of digital technologies for adult learning varies according to people's socio-economic status, race/ethnicity, and access to home broadband and smartphones. To understand learners' readiness to engage with online learning opportunities, researchers used a statistical technique called *cluster analysis* that groups people per similarities in their answers to some key questions (Horrigan, 2016a). The results show that 52% of respondents are relatively reluctant to engage with online learning, while 48% are more prepared (Figure 1.5). The first group is mainly comprised of men and women above 50 years old and minorities; the second group, overall, gathers individuals between 30 and 40 years-old with some college experience or higher education level, and high household income (Horrigan, 2016a). These numbers reveal that access and skills alone do not guarantee that people will use digital networks for productive means or to improve their lives.

This summary of the literature on the digital divide in the OER movement points out that the issue is multidimensional and it relates to pre-existing economic, political, cultural, and educational disparities. At the same time, technological gaps can deepen existing inequalities. The scholars above discuss dimensions of the divide. Unlike them, Sinikka Sassi (2005) provides an overarching perspective on the topic. According to her, scholars usually have two underlying assumptions when talking about the digital divide: 1) The weak hypothesis that understands segregation as temporary and technological penetration as inevitable; 2) the strong hypothesis that states digital technologies create new cleavages while strengthening old ones. These frameworks contain four discourses: technocratic, social structure; information structure and exclusion, modernization and capitalism. The first one focuses on access and skills to close the gap. The second one takes into consideration how technologies are embedded in society. The third sees exclusion as a greater source of inequality than exploitation. In addition, it sees the rapid proliferation of technology as a catalyst for social inequality. The fourth understands inequality as a structural aspect of the capitalist system. Apart from the first one, all of them push the strong hypothesis and advocate for economic, social, and political change for ceasing inequalities.

Sassi (2005) does not give an intervention point for implementing the economic, social, and political changes that advocates of the strong hypothesis deem necessary. In other words, should these changes start with institutions, individuals, etc? Foucault's work provides insights on the matter as he explains that micro-relations create and sustain macro-structures of power: "I think one needs to look rather at how the great strategies of power encrust themselves and depend for their conditions of exercise on the level of micro-relations

of power" (Foucault & Gordon, 1980, p. 199). Taking Foucault's premise into consideration, it is possible to imagine that micro interventions, such as giving people access to technology and skills could possibly alter existing macro-structures. As a consequence, the weak and strong hypothesis (2005) are not necessarily mutually exclusive. Sassi (2005) presents them as separated because her argument relies on a dichotomy between the macro and micro spheres of society. This is not a view that I adopt in this dissertation. In my next chapter, I further explore the relations between micro and macro power structures.

Learning Circles

In 2015, Peer 2 Peer University launched the Learning Circles initiative in collaboration with the Chicago Public Library and the financial aid of the Knight Foundation (Kahn, 2015a). I describe in depth how the project works in my methods chapter. Here, I focus on its basic elements and rationale. I also provide an overview of Peer 2 Peer University at the end of this section. Learning Circles are offline study groups for people who want to take massive open online courses together. Thus, learners use courses from platforms such as Coursera, Khan Academy, FutureLearn, etc. Facilitators (normally librarians) help to keep conversations flowing within their groups. The library offers computers and internet connection to participants. P2PU produces pedagogical materials to assist facilitators, and to provide technological and logistical support to these circles. There are no entry requirements to the study groups, and they target an adult audience that is not necessarily familiar with digital tools and online learning.

14% **The Unprepared**

They have relatively lower levels of tech adoption and do not use the internet for learning, need help setting up new tech devices, and are not familiar with "ed tech" terms. The Unprepared do not have confidence in their computer skills and are not sure they can find trustworthy information online.

Women
Ages 50 and older
Lower income households
Lower levels of formal education

Relatively hesitant 52%

5% **Traditional Learners**

They are active learners and have technology, but are not as likely to use the internet for pursuing learning and have concerns about whether to trust online information.

Women
Minorities
Age: 50 and older
Lower income households

33% **The Reluctant**

They have higher levels of digital skills than The Unprepared, but they have low levels of awareness of new education technology concepts. This translates into relatively low use of the internet for learning.

Men
Age: 50 and older
Lower income households
Lower levels of formal education

31% **Cautious Clickers**

They have high levels of tech ownership as well as confidence in their online skills and abilities to find trustworthy information. But they are less familiar with online learning terms and less apt than the Digitally Ready to use online tools for learning.

Higher income households
Some college experience
Age: In their 30s and 40s

Relatively more prepared 48%

17% **Digitally Ready**

They are ardent learners for personal enrichment. They have technology and are confident about their digital skills and abilities to find trustworthy online information. They also know the most about online learning resources.

Higher income households
Higher education level
Age: In their 30s and 40s

Figure 1.5. Digital Readiness. This image displays a spectrum of five groups regarding readiness to engage with online learning (Source: Pew Research Survey conducted between Oct 13 – Nov 15, 2015. Horrigan, 2016).

P2PU's website reveals that digital divide concerns are part of the initiative's rationale. They state that "we wanted to make sure that any patron of the library was able to feel confident enough to take an online course, no matter what their degree of Internet access was" (Kahn, 2015b, para. 4). This quote highlights that the project addresses digital divide issues by expanding people's access to OER with a model that provides computers, internet connection, and support. Their website also discusses how Learning Circles address the high dropout rates in MOOCs:

One thing most MOOCs share is that they require learners to be self-directed

and motivated, and to be comfortable working online. Partially because of

this, the vast majority of MOOC participants drop out without finishing their

course.

To support learners who lack these requirements (or just enjoy learning

together), Learning Circles position MOOCs in a social space. Emphasizing

peer learning and academic mindsets, a diverse group of learners can now

benefit from online learning as they develop cognitive skills, explore new

learning strategies, and improve their digital literacy with others from their

respective local communities (Peer 2 Peer University Facilitator Handbook,

2015, p. 5).

Their model of face-to-face study groups started with the pilot round that I studied in

Chicago. Since the fall of 2015, the project expanded to 16 other cities (Figure 1.6): Adelaide

(Australia), Boston (MA/US), Columbia, (SC/US), Detroit (MI/US), Kansas City (KS/US),

Milledgeville, (GA/US), Paris (France), Portland (ME/US), Portland (OR/US), Providence

(RI/US), Nairobi (Kenya), Nakuru (Kenya), San Jose (CA/US), Seattle (WA/US), Tampa

(FL/US), and Wichita, (KS/US). Learning Circles mirror trends in adult learning in the

United States as described in a Pew Research Survey from 2015. The results indicate that

73% of respondents identify themselves as lifelong learners; 75% of them participated in at

least one type of self-guided learning activity in the past year, such as readings, courses,

meetings, or events tied to their personal interests (Horrigan, 2016b). Even though they rely

on the internet, most of them pursue opportunities in physical settings, such as high schools,

places of worship, libraries, and workplaces (Horrigan, 2016b). For this reason, Learning Circles do not only provide a face-to-face group for MOOC participants; they align with adults' preferences for engaging with lifelong learning.

In addition to following a pattern in adult education in the United States, Learning Circles also relate to three conversations in the OER movement: digital divide concerns, MOOCs' low retention rates, and the role of librarians in the 21st century. Scholars, educators, and activists are starting to realize that libraries can be strategic to sustain and disseminate OER initiatives. For instance, Kleymeer, Kleinman, and Hanss (2010) highlight the commonalities of the OER mission and academic libraries, so they believe that partnership between them is not only convenient but also logical. Bueno-de-la-Fuente et al. (2012) explain that librarians can bring their background in information science data to help organize, classify, and index resources. This role becomes especially important as universities start to create their repositories for open learning materials (Bueno-de-la-Fuente & Hernandez-Perez, 2011). Thus, librarians' involvement with OER can benefit students, faculty, and institutions.

Librarians can also play a role in disseminating OER. For instance, the Association of College and Research Libraries (2009) points out that librarians should direct students and faculty to open learning resources. Librarians have established relationships with patrons and access to communities of practice, which can foster OER initiatives (Kleymeer, Kleinman, and Hanss, 2010). Librarians also bring a set of skills, such as curriculum development and instructional support that allows them to support existing projects and create new resources

(Robertson, 2010). For this reason, practitioners and scholars see librarians playing a role in teaching digital literacy skills and, as a consequence, easing the digital divide.

Scholars highlight that this is an emerging trend. Bueno-de-la-Fuente et al. (2012), for instance, state that there is no extensive literature on the topic. Hirst (2009) observes that there are few or unexciting references to OER on academic libraries websites. Thus, the Learning Circles capture this trend. In Chicago, librarians told me that they thought the project was interesting because it targeted adult learners. According to them, the library offers programs to children and teenagers, but there are few opportunities for older students.
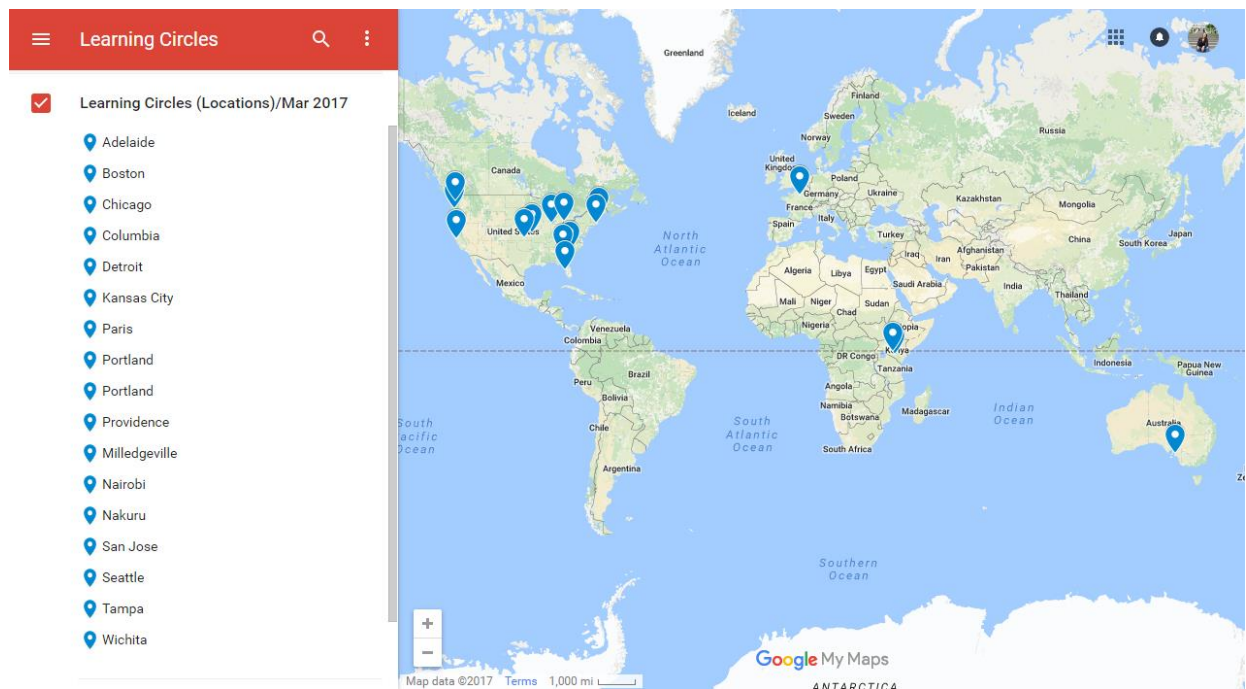
Figure 1.6. Learning Circles Map. Cities that hosted LC according to G. Peterson, personal communication, March 15, 2017 (Source: Cristiane S. Damasceno/Google Maps).

The Learning Circles model is unique in the United States, but Sweden is also fostering a similar initiative. The Nordic Council is funding a project called "Global Cloud

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Services – Local Lifelong Learners." There are four main institutions involved with the project: an association of 13 northern Sweden communities with learning centers (Akademi Norr); the city of Skellefteå; Ledern, a Danish association of managers; and Fjarkennsla, an Icelandic e-learning firm (Norberg et al., 2015). The main goal of the project is to expand university access to isolated communities in Northern Sweden (Norberg et al., 2015). Their model is similar to the Learning Circles, as students also meet weekly to discuss MOOC materials at a learning center. Nordberg et al. (2015) explain that there is no content expert in the meetings, but peers select a group leader. The Swedish project focuses on providing professional development for individuals having difficulties entering the job market (Nordberg et al., 2015). Unlike Learning Circles, in the Swedish project, students can take a test formulated by Lund University that grants them course certificates (Nordberg et al., 2015).

This Global Cloud Services initiative relies on an established informal learning practice in Sweden called *study circles* that emerged in the first half of the 20th century (Nordberg et al., 2015). Oscar Olsson is regarded as the father of *study circles* in its Swedish version and wrote several books on the topic (Larsson & Nordvall, 2010). Olsson saw *study circles* as a way to empower the working class that did not have access to regular universities (Larsson and Nordvall, 2010). He advocated that self-education should be led by democratic-ruled institutions instead of being state-controlled (Larsson & Nordvall, 2010). These *study circles* differed from traditional school settings because "instead of the notion of a teacher, there was a leader who organized the dialogue and whose suitability was not necessarily based on having more knowledge than other participants. The equality between participants

[was] emphasized" (Larsson & Nordvall, 2010, p. 13). Like Learning Circles organized by Peer 2 Peer University, their Swedish precursors also *relied on libraries* as a space for encounters (Larsson & Nordvall, 2010). Larsson and Nordvall (2010) explain that *study circles* evolved over more than 100 years. These informal groups currently attract an estimated 50 percent of the population in Sweden during their lifetimes (Suda, 2001). Larsson and Nordvall (2010) highlight that *study circles* can have different structures; however, there is some consistency across all of them. They explain that participation is volunteer and there are no entry requirements for these groups; they do not offer any form of formal examination; peers organize the groups, and there is no need for a content expert, and meetings usually unfold in an informal atmosphere.

There are similarities between the Learning Circles and the Swedish *study circles*, especially in their mission to expand access to education and the absence of an instructor in the groups. Peer 2 Peer University's project, however, focuses more on 21st-century exigencies, a characteristic that aligns with the philosophy guiding them. This non-profit organization serves an as an umbrella for several open education projects, such as MOOCs and online badges. For instance, in 2014, they offered a massive open online course called "Learning Creative Learning" in partnership with a group from MIT. Most of their initiatives live online and can be accessed through P2PU's website. Overall, P2PU runs free courses in which learners can contribute to content creation, offers tools for individuals to develop their courses, partners with other institutions, develops projects, and fosters conversations related to OER. Participants can encounter several contact points with this organization. People can follow them on social media platforms, such as Twitter, Facebook, and their blog. Another

option is to enroll in one of their courses. It is also possible to create a profile, join their online community and interact with other people through the discussion forums. McAndrew (2011) highlights that P2PU welcomes external partners; however, they manage course structures, cohorts, and timetables. It is beyond the scope of this dissertation to describe in-depth all the initiatives that P2PU supports. Therefore, I will focus on its basic elements.

In 2009, two OER sponsors - Hewlett and Shuttleworth Foundations – leveraged P2PU's creation to "cultivate a high-quality, low-cost model for lifelong learning" (P2PU website, n.d.). According to former executive director of the Creative Commons and P2PU co-founder, Neeru Paharia, our "mission isn't to develop a model and stick with it. It is to 'experiment and iterate'" (Hafner, 2010, n.p.). The organization holds a close connection with the OER movement given the composition of its board. In addition to Neeru Paharia, they also have Mark Surman and Phillip Schmidt. The former is the Executive Director of the Mozilla Foundation, while the latter co-founded P2PU and wrote portions of the Cape Town Open Education Declaration (Schmidt, n.d.). Therefore, it is not a coincidence that the Learning Circles address some of the most current conversations in the OER field.

There are few empirical studies on P2PU's initiatives. A great part of the analysis on OER focuses on students' and instructors' uses of resources in traditional educational settings, such as universities and K-12 classrooms (de los Arcos et al., 2014; de los Arcos et al., 2014; Farrow et al., 2015; Harley et al, 2006; Hussain et al., 2013; Hylén, 2006; Jhangiani et al., 2016; Lane et al., 2009; Masterman et al., 2011; Masterman & Wild, 2011, Petrides et al., 2008; Pitt, 2015; Weller et al., 2015). Overall, these studies explore learners' and teachers' motivations for using OER and the impact of these resources on teaching and

learning practices. For instance, the OER Evidence Report (de los Arcos et al., 2014) recruited 6,000 respondents to a survey related to the impact of open resources. The findings reveal that 37.6% of educators and 55.7% of formal learners believe that OER increases students' satisfaction and results in better test scores; 79.4% of users adapt resources to match their needs; 79.5% of educators use open materials to get new ideas and inspiration; 88.4% of learners state that the lack of costs influenced their decision to use OER.

Corneli and Danoff (2011) wrote one of the first studies on P2PU. Their paper describes their experience as facilitators in an online course at P2PU. They completed *after action reviews* to reflect on how the group implemented five learning principles – courses should not have a central figure, meta-learning is a source of knowledge, peers provide feedback that would not exist otherwise, learning is non-linear, and clear goals need to be established. Their conclusion pointed out that group interactions improved learning experiences; however, accountability in the online course was low. For this reason, they state that P2PU needs to refine its platform to make it more engaging for a greater variety of learners.

Andersen and Ponti (2014) investigated tasks that learners co-created in an Intro to Javascript course at Peer 2 Peer University. Their qualitative case study relied on participant observation, and their results revealed that problem identification and co-creation guided interactions throughout the course. Nevertheless, the opportunity to create tasks did not necessarily improve learning experiences because of the tension between novice and experienced participants. "However, the participatory approach to learning afforded by P2PU, resembling cMOOCs, has great potential for motivating participants by giving them

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opportunities to create tasks that are meaningful and relevant to them" (Andersen & Ponti, 2014, p. 247). Therefore, the model offered the potential for meaningful interactions, even though there were tensions between learners.

Other studies looked at MOOCs' face-to-face study groups. Unlike Learning Circles, groups in these studies were self-generated and did not have the presence of a facilitator. Bulger, Bright and Cobo's (2015) research assessed learners' motivations for creating these groups. "Our research is based on a unique source of socially generated big data, drawn from the website 'meetup.com', which gives us a data set of over 4000 MOOC-related events taking place in over 140 countries around the world over a two-year period component to their virtual learning experience" (Bulger, Bright & Cobo, 2015, p. 1200). The researchers used a mixed method approach that combined large-scale analysis with more in-depth thematic hand coding. Their findings revealed that learners wanted peer interaction to discuss assignments and keep motivated. Chen and Chen (2015) and Oura et al. (2015) also found similar results in their investigations. There are also studies on traditional MOOCs, but this body of literature does not relate directly to my dissertation topic for two main reasons. First, my population diverges from traditional MOOC users. Ehlers (2011) points out that MOOC learners usually have a university degree and high levels of digital skills. Second, the Learning Circle model offers a layer of face-to-face interaction that regular MOOC users do not necessarily encounter.

In summary, there are few empirical studies investigating individuals' practices with open educational resources in informal learning settings and beyond traditional MOOCs. For this reason, to some extent, it is necessary to take at face value the movement's discourse that

open initiatives make knowledge more available to people and, therefore, enhance their lives. Glennie et al. (2012), for instance, stress that most of the questions related to OER practices remain unanswered. In addition, they highlight that there are few critical analyses on the topic. Along the same lines, Knox (2013) observes that "further research is required concerning the pedagogical implications of openly accessible information. Proponents of OER have focused disproportionally on the removal of barriers to accessing educational content, and studies into the activities and competencies of self-direction are needed" (p. 830). Camilleri et al. (2014) also point out that the OER potential remains unmeasured because of lack of evidence evaluating its effectiveness. Thus, empirical investigations can reveal outcomes of and tensions within OER initiatives, explain which social actors benefit from these projects, and give more granularity to the concept of openness. In the next section, I delineate my research problem and research questions.

Research Questions

The literature review provided a historical panorama of the Open Educational Resources movement, its opportunities, challenges, and set the groundwork for the research completed for this dissertation. My case study on Learning Circle aims to reveal how the relations between diverse actors inform these groups. For this reason, I ask:

> RQ 1: How do interactions between project coordinators, facilitators,
>
> students, OERs, and digital technologies inform Learning Circles?
>
> RQ 2: What features of Learning Circles support or detract from
>
> students' participation in their groups?

RQ 3: What characterizes students'and facilitators' participation in the Learning Circles?

RQ 4: How do students and facilitators appropriate open educational resources and digital technologies in their learning processes?

These research questions do not only explore strengths and weaknesses of Learning Circles, but also connect to broader conversations about the relationship between the massive circulation of OER content and local communities, informal learning practices and higher education, and the socio-cultural dimensions of openness that extrapolate software development and copyright licenses. My exploration contributes to a trend in the OER movement that advocates a switch from focusing on *resources* to looking at *practices* (Ehlers, 2011). There is a need for more analyses of the types of actions taking place at OER initiatives, which can reveal their potential for learning and local appropriation. The next chapter explains the conceptual framework I used to approach my research questions.

Chapter 3 – Conceptual Framework

The previous chapter provided a historical overview of the Open Educational Resources movement, Peer 2 Peer University, and the Learning Circles project. Next, it delineated my research problem and questions. This chapter elaborates on my literature review and articulates the conceptual framework that orients my investigation. A social theory of learning serves as the main guide for this work; defining learning as participation in the social world, especially in communities of practice (Lave and Wenger, 1991; Wenger, 1998). The first section of the chapter clarifies basic consequences of framing learning as a social enterprise, explores the nature of communities of practice, and explains how groups connect with each other. The second section brings complementary definitions of space, society, communication, technology, agency and power that support my conceptual framework. Thus, the work of scholars in the fields of communication, cultural studies, and science and technology studies provides a more elaborated view of current networked settings. The last part describes the methodological implications of my conceptual framework and sets the stage for the next chapter.

Social Learning Theory

Lave and Wenger's (1991) social theory guides my conceptual approach. These authors define learning as participation in practices that allows individuals to become competent in a given topic or area (Lave and Wenger, 1991; Wenger, 2000). Practice entails "doing in a historical and social context that gives structure and meaning to what we do. In this sense, practice is always social practice. Such a concept of practice includes both the explicit and the tacit. It includes what is said and what is left unsaid; what is represented and

what is assumed" (Wenger, 1998, p. 47). According to Wenger (1998), these ideas do not replace other theories, but they do offer a framework from which researchers can derive consistent general principles for understanding and enabling learning. In other words, learning is a multidimensional phenomenon, so the emphasis on participation privileges its visible aspects, but it does not exhaust the topic.

Four assumptions about the nature of knowers, knowing, and knowledge support this approach. *We are social beings,* and this is a central aspect of mastering new skills and concepts (Wenger, 1998). As a consequence, *knowing is a matter of engaging in the world* (Wenger, 1998). Every human action unfolds within a context, so learning requires participation because it cannot happen in a vacuum. *Knowledge is competence* regarding valued enterprises (Wenger, 1998). A person becomes knowledgeable after mastering a topic or task, such as signing in tune, fixing machines, discovering scientific facts, etc. Finally, the *production of meaning* is the ultimate result of learning (Wenger, 1998). In other words, learning allows individuals to engage with reality in intelligible ways.

Several implications emerge from these assumptions. First, human actions are social, even when they do not involve interactions with other individuals. For instance, being alone in a hotel room preparing slides for a presentation might not seem a social event; however, its meaning is social as it requires thinking about the audience to make points they will understand (Wenger, 1998). In the same way, a person's interpretations when reading a book receives influences from her past experiences forged through diverse social and cultural encounters.

The second implication relates to the fact that, not only are humans social regardless of their participation in social systems; that very participation requires individual capacities, consciousness, and subjectivity. Billet (2007) explains that the concept of the *individual* became seemingly unfashionable after social theories proposed a move away from cognitive processes to understand learning. Nevertheless, the negation of the individual's role in learning distorts Lave's and Wenger's ideas as they state that personal and social spheres co-determine each other (Billet, 2007). In fact, Wenger (2000) defines learning as the interplay of historically/socially established competencies and personal experiences. Along the same lines, Billet (2007) points out that ongoing negotiations between individuals and society always result in ways that are "inevitably personally particular" (p. 59). For instance, through participation in groups, individuals have access to ways of doing or conceptualizing activities. At the same time, their personal backgrounds allow them to approach situations in unique ways and promote changes to a given practice. Thus, personal transformation through learning holds an intrinsic connection with the evolution of the social world (Lave & Wenger, 1991; Wenger, 1998; Wenger, 2000; Billet, 2007). In other words, learning makes individuals competent and, at the same time, enables historical continuity/discontinuity of practices.

A third implication of social learning theory and its core assumptions is the disruption of the dichotomy between practical and conceptual realms. Social learning theory (Wenger, 1998) denies sharp distinctions between acting and knowing, manual and mental processes, concrete and abstract concepts. Manual activities involve thoughtfulness, and mental processes require embodiment. For instance, I saw participants in my fieldwork moving

chairs and tables around to set-up the room for their Learning Circles, and they were mindful

of how the spatial position of furniture would affect learners' interactions. Also, students

reported that distractions in the environment interfered with their ability to think and focus.

Thus, individuals engage with practical and everyday complexities to produce or gain

formal/conceptual knowledge. At the same time, practical action is not inherently

unreflective. Wenger (1998) highlights that distinct learning communities deal differently

with practical and conceptual knowledge and that "an excessive emphasis on formalism

without corresponding levels of participation, or conversely a neglect of explanation and

formal structure, can easily result in an experience of meaninglessness" (Wenger, 2008, p.

67). Even though practical action and conceptual knowledge cannot be completely separated,

emphasizing one too much at the expense of the other can prevent individuals from

interacting with situations in intelligible ways and, as a consequence, stop learning from

happening.

The final implication of framing learning as a social practice relates to the fact that

identity influences how we gain access to learning resources (Lave & Wenger, 1991;

Wenger, 1998, 2000). Personal and group identities shape people's relations with others,

which affects decisions of what is important to know or how to present knowledge. For

instance, a professor probably teaches Public Speaking differently to a group of

communication or engineering majors. This difference relies not only on their distinct

backgrounds but also on the instructor's understanding of what is necessary for these two

groups to learn. At the same time, learning allows individuals to transform themselves and

acquire new identities, which opens a new set of possibilities for them (Lave & Wenger,

1991). For instance, becoming an instructor entails, not only having skills and understanding a series of topics but also being able to perform a new role and having others recognize this ability.

In summary, every human action unfolds in a social context even the ones performed alone; learning requires involvement with the social world and individual capacities; becoming knowledgeable requires mastering both practical and conceptual aspects of a given practice; identities influence one's learning process. The next section discusses the emphasis that social learning theory places on communities of practice (Lave & Wenger, 1991; Wenger, 1998).

Learning as Participation in Communities of Practice

Communities of practice are groups that pursue common enterprises (Lave & Wenger, 1991; Wenger, 1998). Families, classrooms, professional organizations, leisure groups, among others can be considered CoP depending on the interactions they promote. These social formations matter for learning because they create, hold, and disseminate knowledge and establish competence standards in a given area (Wenger, 1998, 2000). Practice within a community is a source of *mutual engagement* for participants. For this reason, they negotiate the meaning of actions with each other (Wenger, 1998; Wenger, 2000). For instance, instructors normally explain their teaching approach to students on the first day of class. Nevertheless, interactions throughout the semester reveal people's specific needs, backgrounds and also institutional norms. As a consequence, the interplay of these competing views shapes how instructors and students understand the classroom setting and act in it. Mutual engagement does not mean that these interactions are always harmonious

because "relations among participants are complex mixtures of power and dependence, pleasure and pain, expertise and helplessness, success and failure, amassment and deprivation, alliance and competition, ease and struggle, authority and collegiality, resistance and compliance, anger and tenderness, attraction and repugnance, fun and boredom, trust and suspicion, friendship and hatred" (Wenger, 1998, p. 77). The diversity of relations and points of views, plus a common set of practices, make communities possible and productive.

Shared repertoire constitutes another fundamental element for coherence in a community of practice. This repertoire includes routines, tools, stories, and concepts that a group uses over time. Learning how to communicate as a member of a given community means not only learning a new set of skills but also receiving others recognition of your legitimate participation (Lave & Wenger, 1991). For instance, communicating like a researcher is an important step for a student who wants to become part of a scientific community. Sharing a repertoire does not mean that competing points of view cannot exit. As stated in the previous paragraph, diverse approaches compose a community of practice. According to Wenger (1998, 2000), this situation only becomes a problem when it promotes disengagement.

A shared repertoire allows a community to pursue a *joint enterprise;* in other words, to work under the same conditions and aim for common goals. Historically established values and practices can influence the formation of these goals; however, they do not have the direct power to prescribe a pre-established direction because individuals within communities are the ones negotiating their enterprises (Wenger, 1998). For instance, a school might want to prepare students for the challenges of the 21st century. Culturally shared assumptions about

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what constitutes effective education can influence how faculty, administrators, and students articulate this mission; however, these assumptions do not determine how they actualize their practices. In the same way, a participant alone cannot impose a goal to others because participation in communities of practice presupposes mutual engagement (Wenger, 1998). As a consequence, people's personal aspirations come into play as a group pursues shared goals, but it does not determine how the process unfolds.

Mutual engagement, a shared repertoire, and a joint enterprise enable *learning*, the main element of communities of practice. For this reason, these groups do not require co-location to exist (Wenger, 1998). In other words, geography does not constrain their existence because individuals can establish bonds without physical proximity. To this end, transportation, information, and communication tools, especially the internet, assist in the formation of spatially dispersed groups. Wenger (1998) explains that some practices are so dispersed that they resemble more constellations of practice. Thus, technology creates new possible configurations for communities in which local and global contexts can overlap (Wenger, 1998); the boundaries and connections afforded by this overlap offer possibilities for learning.

Boundaries and Connections as Opportunities for Learning

Communities of practice do not exist in isolation because they integrate a more complex social fabric (Wenger, 1998, 2000). Therefore, group members deal with internal configurations and also with external interactions. A shared repertoire and a joint enterprise create boundaries that separate insiders and outsiders. Unlike institutional boundaries that establish clear limits for belonging, the edges of communities of practice are fluid, dynamic,

and implicit (Wenger 1998, 2000). This characteristic does not make them less important because boundaries give unity to a community. For instance, many individuals engage in discussions through Peer 2 Peer University's website. For this reason, they have a badge system to recognize people's participation. Badges appear on individuals' profiles to indicate their level of engagement with the project. Thus, badges serve as boundary cues that help members to make sense of their community.

At first sight, the notion of boundary might bring a negative connotation linked to isolation and exclusion. Nevertheless, boundaries offer connection points for distinct groups and opportunities for learning. On the one hand, communities of practice promote deep engagement with a topic/skill, and learning happens as participants become competent through their participation. On the other hand, boundary contacts expose people to foreign competencies and allow innovation to happen. It is possible to observe on P2PU's discussion forums newcomers proposing ways create new initiatives. It is not possible to precisely state how many of these ideas become actualized. However, Wenger (2000) points out that the results of boundaries contact have more chances to be fruitful when members from both communities have strong expertise.

Boundaries offer opportunities for innovation, but can also become a source of tension and harm. In this case, the group closes itself to outside influences and becomes too focused on its goals. This situation can lead to segregation, misunderstandings, and stagnation. For instance, if Peer 2 Peer University restricted outsiders' participation, they would be neglecting a source of potential new ideas for their project.

Humans and non-human actors enable boundary processes. It is not possible to easily separate their roles in reality; however, for organization purposes, I will explain one before the other. Individuals can transfer elements from one community of practice to another one. Wenger (1998) calls them *brokers* and highlights that effective connections open new possibilities for meaning. The contact point is always contingent on a person's view because no member is representative of the entire practice (Wenger, 1998). This type of situation is evident in some forms of interdisciplinary research in which people's diverse backgrounds can cast a new light over a given phenomenon.

Non-human actors also create connections between communities of practice. Wenger (1998) explains this process by adopting the concept of *boundary objects* (Star & Griesemer, 1989). They serve to coordinate the perspectives of many constituencies of different purposes. In other words, they support connections between multiple communities and can take the form of artifacts, discourses, and processes. For instance, P2PU created a facilitator dashboard to receive feedback on the Learning Circles, but also to help them assist the librarians. This dashboard functioned as a boundary object.

In synthesis, learning takes place not only within communities but also at their intersections with other groups. Humans and tools inform these processes that create opportunities and challenges. The following section further develops the basic concepts that communities of practice offer and explores fundamental ideas for approaching learning in networked and digitally mediated settings.

Communities of Practice in Digitally Mediated Learning Environments

The previous section outlined assumptions and implications of social learning theory and communities of practice (Lave & Wenger, 1991; Wenger, 1998). There have been challenges to these theories, though, related to online learning concepts. Engeström (2007), for instance, states that CoP focuses on communities that have a single center of skill or authority, clear membership criteria, and a pre-defined participation pathway from the periphery to the center. According to him, the concept falls short in describing new forms of online peer production. Roberts (2006) states that a constant acceleration of life's pace characterizes the current era. For this reason, she questions the validity of communities of practice to explain how people manage knowledge in a networked society. Lindkvist (2005) also offers a complementary concept, called 'collectivists of practice,' to describe temporary groups dedicated to knowledge creation and exchange. In a similar fashion, Brown and Duguid (2001) coin the term 'networks of practice' to describe looser relations than the ones present in a CoP, perhaps more applicable to online communities.

All these critiques reveal potential challenges of using CoP for studying digitally mediated contexts. Nevertheless, Lave's and Wenger's (1991) framework offers a flexible approach to understanding how learning unfolds in social systems; but it is an approach that can be strengthened by scholars in other areas who address concepts important to digitally mediated learning environments: space, communication, technology, agency, and power. Scholars from communication, cultural studies, and science and technology provide insight into these concepts and address some issues that the literature on social theories of learning highlights. I start discussing the hybrid nature of space as defined by de Souza e Silva (2006).

Next, I rely on the work of Manuel Castells (1998, 2000a, 2000b, 2000c, 2010, 2013) and

Bruno Latour (1988, 1992, 1996, 2005) to approach societies as networks. Then, I transition

to James Carey's (1975, 2008) ritual model of communication and discuss how

communicative practices constitute culture. Tools also embody cultural expressions, so I

debate how technologies and human subjectivity are co-constituted. This assumption has

direct implications for the definition agency that I frame as a networked capacity. Finally, I

adopt a Foucauldian approach and define power as relations.

Space as Hybrid

New information and communication technologies allow fast and frequent

communication between individuals geographically apart. Thus, a novel perception of space

characterizes our era. Wenger (1998) stresses that *learning* constitutes the defining element

of communities of practice and, for this reason, they do not require physical co-location to

exist. His assumption has theoretical implications for understanding space. This point is

especially important for ethnographic studies such as the present one. Nevertheless, Wenger

(1998) does not offer much insight in this regard. For this reason, this dissertation

conceptualizes space as hybrid. Following de Souza e Silva (2006), I define space as the

relation between objects and people. This definition assumes that virtual and embodied

experiences are real and intersect to create people's sense of space and place (de Souza e

Silva, 2006; de Souza e Silva & Sutko, 2011). For this reason, hybrid spaces are social

because the communication among people who are physically present and remote is also part

of that space (de Souza e Silva, 2006). Hybrid spaces are also mobile because they are

"created by the constant movement of users who carry portable devices continuously

connected to the Internet and to other users" (de Souza e Silva, 2006, p. 262). For instance, a library room does not encompass the totality of a Learning Circle – it is necessary to include course platforms and other online sites.

The proliferation of mobile communication devices, such as smartphones, laptops, tablets, among others, demands this new definition of space. According to de Souza e Silva (2006), mobile interfaces integrate digital networked information into our daily lives. For instance, during my fieldwork, students checked their phones and focused back on offline peer interactions with no apparent hassle. In addition to people's perceptions, I am also considering the crescent pervasiveness of technologies in our environments. Dourish and Bell (2011) highlight that ubiquitous computing constitutes a practical reality in our times. In other words, networked cameras, sensors, and computers guide and restrict people's routines even when people do not notice their presence (Wakefield, 2016). Therefore, the definition of space I adopt here aligns with the practical reality of how computers are being integrated into networked societies. Dourish and Damasceno (2016) argue that digital technologies are embedded in our daily lives; however, they are not always seamless because infrastructures can be *messy*. As a consequence, the blend of digital and embodied experiences in hybrid spaces (de Souza e Silva, 2006) can be disrupted in moments of technical or metaphorical break-downs. For instance, Learning Circles rooms were filled with digital technologies; however, students were more aware of their presence when the online nature of the course clashed with the face-to-face dynamics of the groups.

Society as Networks

Wenger's community of practice concept revolves mainly around the finite human ability to engage with distinct situations. Therefore, interacting with people on a global scale may result in lower local involvement. Wenger (1998) does not frame this situation as a problem and points out that information and communication technologies afford new types of community formation; however, he does not develop these ideas further. For this reason, it is necessary to adopt a framework that addresses specifically at the intersection of technology and society. The pervasiveness of digital networks in people's daily lives (Dourish & Bell, 2011; Wakefield, 2016), and their fundamental role in my dissertation topic call for this move.

In an attempt to describe and understand trends in the Information Era, scholars have stated that *networks* became the current morphology of our society (Barney, 2004; May, 2006; McCarthy et al., 2004). Even though not all dimensions of life follow a networked logic, these types of formation are becoming the defining spirit of our times (Castells, 1998; 2000a). Manuel Castells coined the term "Network Society" that inspired explorations of the topic in the last 20 years. According to him, the development of new information and communication technologies allowed the emergence of new social trends, such as an accelerated life pace, work flexibility, globalized markets, etc. The Network Society scholarship uses abstract and technical language to describe these social trends and processes: nodes, ties, and flows comprise the basic elements of a network (Barney, 2004; Castells, 2010). Nodes are points connected to others through ties that generate flows of goods, information, and affects. Not all nodes have the same importance in a network, even

though they all matter for the structure to work. In practice, social actors, such as individuals, communities, institutions, artifacts, among others, can be considered nodes. As Barney (2004) explains, a group of friends can be considered a network and, each individual, a node. Their interactions constitute the ties, the exchange of gossip, support, stories, and the flows.

Even though Castells (2000a, 2010, 2013) provides more details of the network structure, this dissertation uses only its basic elements and understands it as a *metaphor* that emphasizes connections between individuals, groups, institutions, technologies, etc. Like Actor-Network Theory (Latour, 2005), I assume that tangible and observable actions within relations of production and consumption create and sustain societies instead of ethereal forces. Non-human actors (machines, artifacts) integrate these relations as well. As Latour (1992) observes, humans tend to delegate actions to machines through automatization processes. The results of these relations can be material and also immaterial, such as goods, affects, and information (Hardt, 1999). This assumption requires researchers to "follow 'the actors themselves' […] in order to learn from them what the collective existence has become in their hands, which methods they have elaborated to make it fit together, which accounts could best define the new associations that they have been forced to establish" (Latour, 2005, p. 12). Indeed, actions can crystalize over time and give a false impression that overarching social structures dictate human lives; however, traceable actions produce these so-called *social structures*.

This approach avoids the dichotomy between individuals and society that originates from the notion that structural forces influence people's lives. As stated above, tangible actions form and sustain the collection of processes that we call *society*. For this reason,

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"organizations do not have to be placed into a 'wider social frame' since they themselves give a very practical meaning to what it means to be nested into a 'wider' set of affairs" (Latour, 2005, p. 7). It is possible to ask if communities of practice constitute an overarching social structure. However, I argue that the concept simply describes a series of basic dispositions necessary for learning to happen instead of a crystallized group formation.

Communication as Culture

Communication constitutes another important aspect of communities of practice. Lave and Wenger (1991) explain that knowing how to communicate as a member of a group represents an important membership sign. However, the two authors do not provide a specific definition of communication practices. Thus, I adopt James Carey's (1975, 2008) definition that sees culture being constituted through communication. Culture is a 'whole way of life' that comprises the *formation* and *organization* of what individuals think, feel, value, and do (Williams, 1974). This process is always dynamic and evolves through tradition and selection movements. In other words, tradition offers meanings to practices established over time and selection rearranges them through interactions with changing material conditions. For this reason, cultures always have dominant aspects and residual ones. As Slack and Wise (2014) highlight, "the particular formation manifest by the relationship of dominant, residual, and emergent processes at a particular point in time is what Williams means by culture as a 'whole way of life'" (p. 7). Thus, the study of communication encompasses not only the *exchange of messages* but also people's *everyday practices*. It is important to highlight that culture and society are connected, but different concepts. "There is no culture over here and society over there. Culture is the process that connects the elements of everyday life, whether

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symbolic, structural, material, or affective" (Slack & Wise, 2014, p. 7). In other words, culture/communication give cohesion to societies.

This conceptual approach relies on a ritual instead of a transmission model of communication (Carey, 2008). The ritualistic model of communication understands communication as the process that enables communion and participation in society whereas a transmission model views communication as the exchange of messages over time and space. Carey (2008) highlights that one model does not exclude the other; however, the first one is broader. For this reason, information transference is better understood in the light of a ritualistic perspective. Finally, the focus on *practice* aligns with Lave's and Wenger's (1991) premise that learning happens through *historically informed actions*.

Technology and Humans as Co-Constituted

Wenger (1998) stresses the role of artifacts in connecting diverse communities of practice. I further explore the nature and role of tools through the work of cultural theorists Slack and Wise (2014). According to them, technologies and culture are distinct but co-constituted human creations. On the one hand, artifacts have a material as well as a cultural dimension. On the other hand, material reality always shapes culture. For instance, during my fieldwork, I observed a group of students who met in person for their Learning Circle but also wanted to interact with each other on the website for their course. However, they had difficulties finding their posts among thousands of discussion threads that the massive online platform allows. MOOC developers structured this course assuming that people would accomplish it individually and receive feedback from peers they did not know in person. This example demonstrates that technologies are not neutral, but embody certain values and ideas

through design decisions. At the same time, once these decisions become embodied in a tool, they influence how people use it. Learners from my study ended up not only giving feedback to each other but also interacting with peers from outside their group through the online platform. These examples corroborate the assumption that "culture has always been technological, and technologies have always been cultural. Technologies are integral to culture and not separate from it. (Slack & Wise, 2014, p. 9). This definition aligns with James Carey's approach to communication because it emphasizes culture.

This conceptual framework describes technology as an integral part of society and not as an external force (Fisher, 1992; Slack & Wise, 2014; Turkle, 1995). As Sherry Turkle (1995) points out, "we construct our technologies and our technologies construct us and our times" (p. 46). This point of view avoids the technological versus cultural determinism debate. The first point of view sees technology as neutral tools that impact society to produce certain types of results independent from human action (Fisher, 1992). Here, technology is the primary element promoting social change. For instance, saying that computers will solve educational problems in the US is a technologically deterministic statement. Slack and Wise (2014) point out that cultural determinism is the reverse side of this point of view. In other words, it is the idea that culture dictates how we use artifacts. In this case, humans are the primary agents promoting social change regardless of the technological affordances and constraints.

Agency as a networked capacity

Stating that technology and society constitute each other has implications for defining agency – a fundamental element for understanding learning. Even though Wenger (1998) acknowledges the importance of technologies for communities of practice, his human-centered ideas create a tension between individual and societal actions. For instance, is a learner's success the product of personal efforts or favorable external conditions, such as access to material resources? Acknowledging that actions are always interconnected dismantles this false dichotomy. This realization has direct implications for defining agency. Agency is the capacity to act in the world and requires engagement with material reality (Bennett, 2005). For this reason, mastering a new skill depends not only on individual talent but also on interactions with tools, the format of lessons, etc. Consequently, agency is always a networked capacity.

This distributed view denies the idea that action necessarily requires intentionality and it focuses on actor's potential to influence events (Bennett, 2005; Latour, 2005). Thus, this definition opens the possibility for non-human actors to exert agency as well. For instance, calculating with a pen and paper constitutes a different action than doing it with a digital calculator. In this case, the affordances of a calculator change the nature of the action, making it potentially faster. This approach does not propose a symmetrical view of human and non-human agents (Latour, 2005). The calculator does not initiate the action, but it does influence how events unfold. For this reason, the perspective still takes into account the role of intentionality in agency, but understands it as a less decisive variable in determining the course of actions (Bennett, 2005; Latour, 2005). If a person does not know how to use a

calculator, it does not matter her intention; the machine will not give the results she expects. This definition of agency constitutes a partial adaptation of Actor-Network Theory. Proponents of this approach take one step forward and define every social actant - such as people, technology, and institutions – as networks themselves (Callon & Law, 1997; Latour, 1996). I do not adopt this ontological claim because it overemphasizes the mutable states of beings. There are fixed aspects that make it possible to define individual actants regardless of the connections they establish. In other words, I do not use the idea that social actors are networks, but accept the connected nature of their actions and, as a consequence, their agency.

Power as Relations

Power constitutes an expression of agency and can shape learning within and across communities of practice. Nevertheless, Lave and Wenger's ideas have been criticized for their minimal attention to power relations (Blackler & McDonald, 2000; Contu & Willmott, 2000, 2003; Fox, 2000; Hughes et al., 2007; Roberts, 2006; Yanow, 2004). Even though the two authors acknowledge that groups can comprise and replicate conflict, they just make brief comments about the topic. For instance, in the book *Situated Knowledges*, they highlight that some of their ideas require more rigorous treatment and acknowledge that "in particular unequal relations of power must be included more systematically in our analysis" (Lave & Wenger, 1991, p. 42). Nevertheless, they never develop this concept in depth in later works. Fox (2000) points out that Wenger discusses some effects of power in his book *Communities of Practice* only when talking about identities and in some footnotes.

A Foucauldian approach to power complements the CoP framework. The French philosopher (1982) highlights that power is not an essential concept, nor a property of certain groups or institutions; rather it is a relational capacity to act over others. The process promotes a whole field of responses, so power and freedom are not mutually exclusive: "Power is exercised only over free subjects, and only insofar as they are free. By this we mean individual or collective subjects who are faced with a field of possibilities in which several ways of behaving, several reactions and diverse comportments, may be realized" (Foucault, 1982, p. 790). As a consequence, power is not only repressive but also productive. Foucault (1982) advocates that power is not only exercised over subjects, but it creates them. As explained in the first section of this chapter, I adopt a different point of view regarding subjectivity formation. I assume that the interplay of individual's capacities and historically/socially established practices create who we are. Nevertheless, Foucault's focus on concrete *action* fits well Lave and Wenger's framework that emphasizes *practice*.

It is important to highlight that my framework accounts for power relations, but it does not define them beforehand. For this reason, I move away from Foucault's (1982) historically contingent typology of power - disciplinary, pastoral, and sovereign - and only rely on his general definition of the concept. This move aligns with the idea that the structure of participation emerges as people engage with communities (Lave & Wenger, 1991; Wenger, 1998). This approach does not mean that there are no previous contexts informing practice, but that there are no forms of control over a communities' structure that can be complete and secured (Wenger, 2008). Thus, I assume that participation can take many forms. Stating that participation can follow multiple pathways extrapolates the novice-

apprentice scheme (Lave & Wenger, 1991). In Lave & Wenger's apprenticeship model,

newcomers occupy smaller roles in their communities and transition to more important

positions as they progress. Even though the novice-expert model might take place in groups,

I assume that of other forms of participation can also emerge.

To summarize, social learning theory and communities of practice, combined with

additional theoretical constructs related to space, society, communication, technology,

agency and power, provide the foundations for looking at Learning Circles and

understanding their networked structure while also accounting for people's practices within

these groups and potential power imbalances. The next section describes the methodological

implications of this conceptual framework.

Methodological Implications

This chapter gives points of reference to guide my methodological choices. Thus, I

explain how my conceptual framework and methods align with each other; in the next

chapter, I develop in detail the rationale for using an ethnography of hybrid spaces (de Souza

e Silva, 2006) in this study. First, based on this framework, I focus on *practices* when

approaching social phenomena. As Wenger (1998) explains, practice entails *doing* within a

socio-historical framework: learning takes place when people engage with the social world

(Lave & Wenger, 1991; Wenger, 1998); observable actions form and perpetuate society

(Latour, 2005); and communication encompasses culture and not only the transmission of

messages (Carey, 2008). The emphasis on practice aligns with my choice of using

ethnography because participant observation constitutes the cornerstone of this method. In

other words, I engaged with participants as a participant-observer to take notes on their

actions and routines and I also interviewed them to better understand the meanings of what they did.

Second, using this conceptual framework, I also pay attention to *relations and interactions*. Wenger's notion of boundary reveals how connections between distinct groups offer opportunities for learning, but also for conflict. Additionally, the notion of hybrid space (de Souza e Silva, 2006) compels me to understand how embodiment and disembodiment intersect in people's daily experiences. Also, the network metaphor that I borrow from Manuel Castells casts lights on the fact that information and communication technologies foster connectedness around the globe. Finally, the idea that both agency and power emerge in the intersection of people, tools, and the environment. These ideas have methodological consequences, especially for establishing the boundaries of the field site. For instance, in my fieldwork, I noticed that learning extrapolated libraries' physical boundaries, not only because of MOOC materials, but also because of how P2PU staff was communicating with facilitators via an online dashboard. I ended up gaining access to these virtual communication venues and participated in their weekly meetings. I develop these ideas more in the methods chapter and disclose the rationale for following some relations and not others.

The final methodological implication of this conceptual framework relates to the *co-determination of humans and artifacts*. According to Lave &Wenger (1991) and Slack & Wise (2014), technologies embody certain values in their design. The characteristics of these tools also shape our interaction with them and with each other. As illustrated, boundary objects can connect distinct groups (Wenger, 1998, 2000), and tools have the potential to interfere with the course of actions and exert agency (Bennett, 2005; Latour, 2005). When

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studying learning practices within digitally mediated environments, it is risky to adopt a *technologically deterministic* point of view (Slack & Wise, 2014) that minimizes human agency. At the same time, it is problematic to adopt a *culturally deterministic* stance (Slack & Wise, 2014) and assume that people have total control over their tools. Thus, understanding the co-constitution of humans and technology prompted me to look at the interplay of students, their tools, and the environment. For instance, the position of furniture in a Learning Circle and available tools, such as headphones, interfered in group dynamics. I give more details of how this assumption informed my data collection process in the next chapter.

This conceptual toolbox combines social theory of learning, cultural studies, and science and technology studies. Social learning theory provides insight into learning in a historical framework of social relations. Cultural studies work invites a critical view of relations of power and an understanding of the meaning of cultural practices. Science and technology studies contribute the idea that artifacts are not mere supporting elements, but are fundamental parts of social life. The combination of these three perspectives provide conceptual tools to investigate my research problem with depth and breadth. For this reason, my contributions to the Open Education scholarship relies not only on the novelty of my investigation topic – Learning Circles - but also on my approach to it. The next chapter explains in details the methodological choices that accompany this conceptual framework.

Chapter 4 - Methods

This chapter describes my methodological framework, field site, researcher role, participants, data collection, and analysis. I conducted an ethnography (Hine, 2015; Patton, 2002; Spradley, 1979) to study relations between people and technologies, learning preferences, participation, and content appropriation in the Learning Circles project. I grounded this study on the assumption that a researcher's in-depth involvement with participants can generate a complex understanding of people's actions within a cultural framework (Boellstorff et al., 2012; boyd, 2008; Hine, 2015; Patton, 2002). Qualitative research usually employs an inductive logic to knowledge production (Bernard & Ryan, 2010), which makes it the ideal option for this research topic. For this reason, the exploratory character of qualitative methods aligns with the novelty of Learning Circles and the relatively small number of empirical studies looking at people's engagement with open education initiatives. For this study, I attended all the meetings of five Learning Circles on the topics of Public Speaking, Introduction to HTML & CSS, Resume Writing and Interview Skills, and NCLEX/Registered Nurses Test Prep. I also observed individual sessions of an Introduction to Academic Writing, a Start Writing Fiction, and an HTML & CSS circle. I joined a resume writing group as a regular learner to gain firsthand experience with the Learning Circle model. In addition to face-to-face data collection, I observed online sites, such as P2PU's website and MOOC platforms. Finally, I used the constant comparison method (Glaser, 1965) to analyze my data.

Methodological Framework

I used a qualitative and naturalistic methodology (Bernard & Ryan, 2009; Patton, 2002) within an ethnographic framework (Hine, 2015; Patton, 2002; Spradley, 1979) to study relations, learning preferences, participation, and appropriation in the Learning Circles. Qualitative inquiry offers emergent design flexibility that can be defined as "openness to adapting inquiry as understanding deepens and/or situations change; the researcher avoids getting locked into rigid designs that eliminate responsiveness and pursue new paths of discovery as they emerge" (Patton, 1990, p. 40). In addition, qualitative methods emphasize researchers' personal experiences, insights and engagement with participants. For this reason, investigators need to be mindful of their environment, respectful, aware, sensitive, and responsive (Patton, 1990). In other words, researchers engage with dynamic situations that allow them to capture in-depth information about a given context. Beyond being flexible, qualitative research usually employs an inductive rationale to knowledge production (Bernard & Ryan, 2009). This approach fits well with this dissertation project given the novelty of face-to-face study groups around MOOCs (Bulger, Bright, & Cobo, 2015; Chen & Chen, 2015; Li et al., 2014; Oura et al., 2015) and the lack of empirical studies specifically looking at Peer 2 Peer University's model.

I conducted an ethnography because it encompasses the aforementioned virtues of qualitative methods and also offers a multifaceted understanding of the cultural context in which people's actions take place (Boellstorff, 2012; Charmaz & Mitchell, 2001; Hine, 2015; Patton, 2002). The ethnographic approach responded to the specific gaps in scholarship related to my research topic. There are no qualitative studies on the Learning Circles, so

ethnography allowed me to gain in-depth knowledge of the project. This methodological

choice also aligned with my conceptual framework that describes culture as constituted

through communicative practices (Carey, 1975; Carey, 2008; Slack & Wise, 2014).

Ethnographers access people's communicative practices through interactions with

participants. As Hine (2015) articulates: "Participation by the ethnographer is an important

aspect of the ethnographic knowledge generation process, because it allows the ethnographer

to observe in minute detail exactly how activities happen rather than relying only on selective

retrospective accounts from participants" (Hine, 2015, p. 55). For this reason, observation

constitutes the method's cornerstone. In a networked society, people's actions take place

across virtual and embodied realities (de Souza e Silva, 2006), which demands adaptations to

traditional ethnographic observation.

Qualitative researchers are aware of the challenges that the internet brings to their

practices. New approaches respond to the fact that, in a networked era, culture cannot be

conflated with geographic space (boyd, 2008; Hine, 2015), presence in the field site gains

new contours (Boellstorff et al., 2012), and researchers face new ethical dilemmas (Markham

& Buchanam, 2012). In summary, *hybrid spaces* (de Souza e Silva, 2006) bring challenges to

ethnographers.

Ethnography of Hybrid Spaces

My investigation follows the assumption that digital networks function as field sites

and research instruments (Hine, 2015; Robinson & Schulz, 2009). Also, I acknowledge that

the internet is embedded in everyday life, so fieldwork should encompass online and offline

realities (Hine, 2015). Distinct scholars offer different methodological alternatives to deal

with the complexities of digital cultures. Marcus (1995), for instance, proposes multi-sited ethnographies. Latour (1996) says that scholars should trace relations between actor-networks. Hine (2015), Burrell (2009), and Wilson (2006) prompt researchers to observe online/offline sites because every virtual interaction is also embodied.

I conducted face-to-face and online observations because participants in the Learning Circles took online courses with the support of a face-to-face group. The works of Boellstorff, et al. (2012), boyd (2008), Hine (2015), Latour (1996), and Wilson (2006) influenced my methodological choices. Specifically, my ethnography of *hybrid spaces* (de Souza e Silva, 2006) used a similar approach to Brian Wilson's (2006) research on youth activism. He argues that the logics of cultural dissemination can be investigated through ethnographies that consider the relationships between online/offline realities. Wilson (2006) points out that this alternative is not always the ideal for studying digital cultures; however, he gives examples that illustrate how online and offline data complement each other to provide a deeper understanding of a topic. In my fieldwork, I noticed that participation in the Learning Circles happened beyond the libraries' physical boundaries. Learners used MOOC materials during study sessions and facilitators communicated with P2PU staff via an online dashboard. I gained access to these virtual communication venues and participated in weekly meetings with the coordinators, which gave a more complex understanding of their project. It is important to highlight that I did not simply collect online and offline data, but strived to understand how they intersected and fed each other, which aligns with the concept of hybrid spaces (de Souza e Silva, 2006) that I described in the previous chapter.

Negotiating my presence in the field site and establishing its boundaries represented the two main challenges of this ethnography. Therefore, literature on internet research was a valuable guide to my fieldwork. Bruno Latour (1996), for instance, states that "ANT [actor network theory] is not about *traced* networks, but about a *network-tracing* activity" (p. 378). Along the same lines, Christine Hine (2015) points out that delimiting the field site becomes the researcher's choice: "It has increasingly been recognized that the field site is an artful construction. This recognition opens up a space for discussion of the extent to which the ethnographer exerts agency over the nature of the field she chooses to explore" (Hine, 2015, p. 60). Thus, I traced actions of people, groups, and tools that had the agency directly inform the Learning Circle experience, such as students, facilitators, Peer 2 Peer University, the library staff, MOOC materials, and platforms.

Digital networks do not only complicate the notion of the field site, but also the researcher's presence on it. For instance, Boellstorff et al. (2012) explain that, on the one hand, it is possible for individuals to have multiple avatars; on the other hand, it is also possible to have more than one person using the same avatar. Even though these authors focus on video games, it is possible to extrapolate the same rationale to other forms of online presence, such as SNS profiles. These types of situations make it easier to lurk and observe participants without their awareness or consent. For this reason, issues of presence in online space raise ethical concerns (Markham & Buchanan, 2012). Ethnography ameliorates these concerns because researchers can establish a relationship with participants and disclose that they are conducting online observations. In my study, I addressed lurking concerns by asking

participants to navigate the MOOC course with me for a couple of minutes instead of looking at it by myself.

Site Description

Learning Circles are free face-to-face study groups for individuals who want to take MOOCs together. Five main elements compose their structure (figure 4.1): 1. A dedicated space with available computer/internet connection; 2. Volunteers who facilitate the study groups; 3. P2PU's materials/pedagogical support; 4. Massive open online courses; 5. Learners. Peer 2 Peer University partnered with the Chicago Public Library to run the pilot round of this project. To ensure that project coordinators worked in synergy, they met weekly using a videoconference system. These weekly meetings helped them to touch base and discuss challenges and logistics of their project.

The Chicago Public Library staff hosted and supported the Learning Circles observed in this study. They provided study rooms at 12 library branches, internet access, and laptops for learners to use during Learning Circles sessions. They also publicized the project through their website, flyers, social media platforms, and local newspapers. Learners enrolled in the study groups through an application form that P2PU posted on their website or talked directly to the librarians.
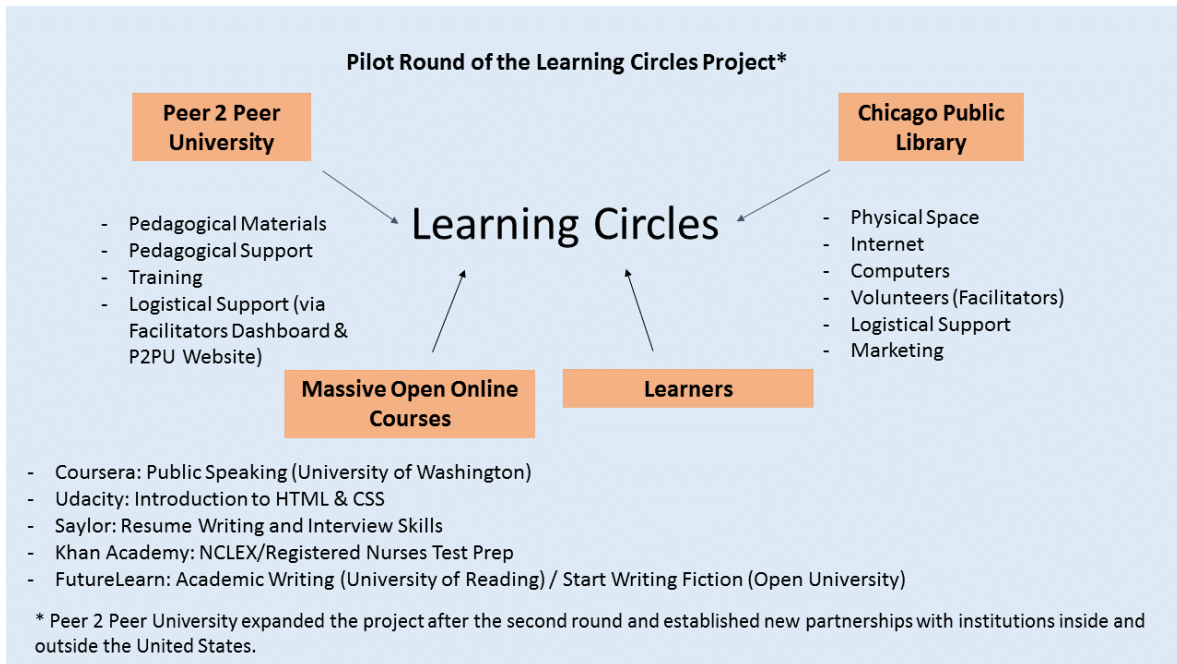
Figure 4.1. Learning Circles Diagram. This figure illustrates the main constituents of Learning Circles (pilot round).

Librarians and outsourced staff from 12 branches voluntarily facilitated study groups on the topics of Public Speaking, Introduction to HTML and CSS, Resume Writing and Interview Skills, NCLEX-Registered Nurses Test Prep, Start Writing Fiction, and Beginner's Guide to Academic Writing. Facilitators had no expertise on the subject matter and received a brief training plus pedagogical support from Peer 2 Peer University. Their website explains that "each Learning Circle has a facilitator. He or she is not necessarily a content expert, but has been trained in helping support a peer learning environment for learners like you who want to work through online courses together" (Peer 2 Peer University, 2016). Thus, in this pilot round, P2PU provided volunteers with a facilitator handbook, a dashboard for writing down impressions on their groups and communicate with other team members, and weekly recipe cards that contained suggestions for group activities (Table 4.1). Every card

recommended facilitators to ask students about positive and negative aspects of their groups at the end of each meeting.

Table 4.1. Recipe cards topics for the Learning Circles (pilot round)*.

Week	Topic
1	Introduction and Logistics
2	Goal Setting
3	Growth Mindsets
4	Values and Identity
5	Failure
6	Conclusion
* Some Learning Circles met for eight weeks.	

In addition to the activities that Peer 2 Peer University developed, each group worked on free materials from MOOCs. Future Learn, Udacity, Khan Academy, Saylor, and Coursera respectively offered courses on fiction/academic writing, HTML and CSS, NCLEX/registered nurses test preparation, resume writing and interview skills, and public speaking. All of them offered an organized structure with elements such as syllabus, readings, video lectures, quizzes, tests, and online discussion forums. Participants adapted the MOOC structure to the Learning Circle model because some of them were longer or shorter than the six or eight-week format that P2PU proposed (Table 4.2).

Table 4.2. List of MOOCs used in the Learning Circles (pilot round).

Platform	MOOC	Weeks	Affiliated Institutions
Coursera	Introduction to Public Speaking	10	University of Washington
Udacity	Intro to HTML and CSS	3	N/A
FutureLearn	A Beginner's Guide to Writing in English for University Study	5	University of Reading
FutureLearn	Start Writing Fiction	8	Open University
Khan Academy	NCLEX/Registered Nurses Test Prep	N/A (organized by topics)	N/A
Saylor	Resume Writing and Interview Skills	3 + 3 (two separated courses)	N/A

These study groups had weekly sessions that lasted approximately 90 minutes. The number of learners in each group fluctuated throughout the six weeks, so I attended circles within a range of two to ten participants (facilitators included). Each study room was equipped with chairs, tables, a multimedia system, and a projection screen. The display of digital tools and furniture varied across diverse learning circles depending on how facilitators organized the room. Thus, some of them positioned tables in semi-circles, while others had them facing each other or the projection screen.

I observed all sessions of five groups, attended one meeting of three other groups and joined a group as a regular participant (Table 4.3). One of the public speaking circles met in a

second-floor room of approximately 6 X 7 meters. The wall adjacent to the door had

windows. The facilitator placed two tables facing each other with the projector behind them.

As a consequence, learners had to turn slightly to the side to watch the videos. The other

Public Speaking met in a first-floor room of approximately 6 X 6 meters and with no

windows. The chairs with writing pads all faced the wall with a white screen. The facilitator

placed the projector in front of the chairs over a small desk. This room resembled a

traditional classroom. The HTML and CSS circle met in a first-floor room of approximately

7 X 10 meters. The wall opposed to the door had windows. Facilitators used a projector

plugged into a laptop, placed over a table and a white screen in their group. The tables were

initially organized in a U-shape with the projector in the middle, but towards the end, they

were placed side-by-side with the projector in front of them. This change accommodated the

smaller number of participants that finished the course. The resume writing and interview

circle met in a first-floor room of approximately 7 X 8 meters. The room had no windows,

and the wall opposed to the door held a white screen. The facilitator placed tables in 2 rows

facing the screen and placed the projector on a desk in front of the learners. The NCLEX

circle met in a fourth-floor room of approximately 7 X 8 meters and with no windows. The

facilitator organized the tables in a U shape with the projector in the middle. The HTML/CSS

and Academic Writing groups that I observed just one time also met here. The room had the

same display of furniture and equipment. The Writing Fiction circle met in a room of

approximately 6 X 7 meters. There were windows in the wall opposed to the door. The

facilitator organized the tables in a U-shape, and this group did not use a projector when I

observed them. The resume writing and interview groups that I joined as a participant met in

a first-floor room of approximately 6 X 7 meters. The space had no windows and learners sat

around a rectangular table. This group also did not use a projector, but just individual laptops.

Table 4.3. Schedule and accessibility to the Learning Circles that I observed.

Learning Circle	Day	Time	Library ↔ closest train station (km)*
Public Speaking	Monday	18:00 – 19:30	1.2
Public Speaking	Tuesday	11:00 – 12:30	0.10
HTML	Tuesday	16:00 – 17:30	0.8
Academic Writing	Tuesday	18:00 – 17:30	0.06
Writing Fiction	Wednesday	16:00 – 17:30	2.7
Resume Writing	Wednesday	18:00 – 19:30	4.5
HTML	Thursday	11:00 – 12:30	0.06
Resume Writing	Thursday	17:00 – 18:30	10.0
NCLEX	Saturday	14:00 – 15:30	0.06
*Source: Google Maps			

I combined *maximum variation* and *homogeneous* sampling techniques (Patton, 1990)

to select these Learning Circles. On the one hand, the first strategy captures and describes

categories that cut across a broad diversity of participant variation (Patton, 1990). On the

other hand, the second explores in-depth homogeneous samples. Since there are no empirical

studies looking at Learning Circles, it made sense to look at a diverse collection of groups in

terms of learning topics, geographic and socio-economic indicators (Table 4.4). However, the

maximum variation approach can become a problem for small samples because individual

cases might be very different from each other. For this reason, I focused on courses dedicated

to professional development topics. I also observed one session of an Academic Writing and

a Start Writing Fiction circle to compare them with the professional development ones. The

balance between these two techniques enabled me to look at P2PU's project in its pilot

round, reach data saturation and capture diversity across groups as well.

Table 4.4. Socioeconomic indicators for neighborhoods in Chicago.

Courses offered at different Library Branches	Branch Location	Branch Neighborhood - Median Household Income (2013)	Branch Neighborhood - Habitants (2013)
HTML and CSS* Academic Writing* Nursing Prep Test*	Downtown Area	U$96,426	15,853
Resume Writing	North Side	U$82,599	78,051
HTML and CSS*	North Side	U$48,991	54,873
Nursing Prep Test	North Side	U$47,569	57,617
Resume Writing*	West Side	U$54,423	30,275
Public Speaking*	West Side	U$50,300	23,385
Nursing Prep Test	West Side	U$25,592	25,383
Resume Writing	South Side	U$43,100	35,045

Table 4.4 (cont). Socioeconomic indicators for neighborhoods in Chicago.

Courses offered at different Library Branches	Branch Location	Branch Neighborhood - Median Household Income (2013)	Branch Neighborhood - Habitants (2013)
Resume Writing*	South Side	U$38,949	20,014
Start Writing Fiction	South Side	U$34,915	34,942
Start Writing Fiction*	South Side	U$29,287	40,824
Public Speaking*	South Side	U$27,404	30,501
Source: city-data.com / * I observed LC highlighted in pink and participated as a learner in the one highlighted in blue.			

This field site offered rich opportunities for exploring my research questions, not only because of the presence of multiple actors involved with Learning Circles, but also the library's resources available to participants, such as laptops and free *Wi-Fi*. Thus, these groups attracted an audience of learners who did not necessarily have easy access to the internet or familiarity with online learning. In synthesis, these circles allowed me to explore how distinct social actors influence open education and understand how individuals with little access to the internet create strategies for completing online courses.

Researcher Role

I observed project coordinators, facilitators, and learners and, as a consequence, performed several roles in the field site. When interacting with the coordinators, I acted as a collaborator. Thus, I gave input on learners' survey that P2PU designed and shared my learner interview protocol to ensure we avoided replicated questions. P2PU sent out this survey to students and shared results and raw data with me. I conducted the facilitator's

survey they designed alongside my ethnographic interviews and shared results. I also wrote a

second report disclosing ten patterns generated from my field notes and interviews. Given

their time constraints, the release of these materials happened a week after my fieldwork

ended. I carried out a pre-analysis of my data that involved taking notes minute by minute of

all interviews. These notes and field observations went through an initial coding (Charmaz,

2000). I selected these ten patterns based on relevant topics to projects' coordinators. Thus,

several conversations with both P2PU and library team members helped me understand how

my data could benefit them.

In the study groups, my role changed across diverse Learning Circles (Table 4.5). On

the one hand, some participants included me in conversations and group forming activities.

The interviews with these individuals revealed that they positioned me as a co-learner. On

the other hand, other participants preferred not to include me in their activities. I also joined a

Learning Circle as a regular learner. Even though I did not collect data on this group, the

experience allowed me to engage fully with the field site.

It is also important to highlight that 12 years ago, I helped to found a non-profit

organization that provided after school tutoring to underprivileged children. This project

resembled some Learning Circles core principles, especially, the idea that local communities

should appropriate the model they are developing. This resemblance made me more prompt

to act as a team member when project coordinators requested my presence. Therefore, I had

to balance etic and emic perspectives during the fieldwork. In other words, I acted as a

collaborator but did so to the extent that this did not conflict with my researcher's

responsibilities. For instance, I did not share any personal or specific information about

learners and facilitators with P2PU and library coordinators and vice-versa.

Table 4.5. Researcher's main role in each Learning Circle.

Learning Circle	Students who attended at least three sessions	Participation Status	Number of sessions that I attended
Intro to Public Speaking	2	Observe who sometimes participated in the group forming activities and discussions	6
Intro to Public Speaking	3	Observer who sometimes interacted with students and facilitator	6
Intro to HTML and CSS	4	Observer who sometimes interacted with students and facilitators	6
Academic Writing	~ 5	Observer	1
Start Writing Fiction	~ 3	Observer	1
Resume Writing and Interview Skills	4	Observer	6
HTML	~ 6	Observer	1
Resume Writing and Interview Skills	3	Learner	6
NCLEX/Registered Nurses Test Prep	3	Observer who sometimes interacted with students and facilitator	6

Data Collection

Field notes from online and offline observations, interviews with participants, MOOC materials, P2PU online discussion forums, social media updates, and the library's website constituted the main data sources for this research. Several layers compose the Learning Circles project, so I observed face-to-face interactions in the study groups and looked at MOOC courses, attended weekly calls between P2PU staff members and library's project coordinators, followed the online discussion on the facilitator dashboard and P2PU community. The access to all these layers allowed me to study the project in a networked fashion (Latour, 1996) and understand how different actors contribute to this open education enterprise.

My engagement with Learning Circles began after contacting the P2PU member who coordinates them. This person reached out to his team and the library's coordinators who all granted me access to the project. Before entering the field site, I video chatted with one P2PU and two library staff members to further explain my research, clarify their questions, and understand how my investigation could enhance their work. When I first emailed P2PU, they told me that the project was in its pilot stages and, through message exchanges, we reached the conclusion that my research could benefit them as well. Thus, they asked if I could provide them with insights for improving following rounds of Learning Circles. They also requested me to only approach students and facilitators for interviews after the third week because this would give them enough time to adjust to the format of the study groups. I filled my IRB application after this conversation and included all their suggestions on it.

Following this initial contact and IRB clearance, a library project coordinator sent out an email introducing me to all facilitators. In the first day of all circles observed in this study, I arrived at the library earlier to meet facilitators in person, answer their questions, and coordinate how I would approach participants. Thus, all of them introduced me to students in the first meeting. Next, I provided the group with a five-minute explanation of my research highlighting how my observation would unfold and assuring that no personal information would be recorded. I also gave participants my email address and a form so that they could write down contact information for interviews. I went to all the six meetings of five Learning Circles covering the topics of Public Speaking, Introduction to HTML and CSS, Resume Writing and Interview Skills, and NCLEX-Registered Nurses Test Prep. I also observed one session of three other groups studying HTML and CSS, Start Writing Fiction, and Beginner's Guide to Academic Writing. Finally, I joined a resume writing group as a regular learner. In total, I attended 39 Learning Circles sessions, which resulted in approximately 60 hours of participation over the course of eight weeks. It is important to highlight that I also attended the weekly calls between P2PU and library coordinators, which provided me with a broader context of the project, including management challenges and future plans.

In addition to field observations, data collection involved interviews with learners, facilitators, project coordinators, and MOOC instructors. Only individuals over 18 years old participated in these conversations that took place at coffee shops, libraries, parks, via phone or video chat. I scheduled interviews in person right before or after Learning Circles meetings or through email messages and phone calls. I went over the informed consent form before each interview. For the face-to-face ones, participants signed it and received an extra

copy for their records. For the phone or video interviews, participants replied to my email saying that they understood the consent form. All these conversations were audio recorded.

For the artifact collection portion of this ethnography, I checked updates on P2PU and the library's websites and social media accounts every two weeks. I also followed the discussion in the P2PU community and facilitator dashboard. Finally, I also collected course lessons from the five MOOC platform used in this pilot round.

I strived to collect information that would produce a credible analysis. To this end, I used several strategies to ensure the trustworthiness of this work as described in the qualitative research literature: prolonged engagement, triangulation, and persistent observation (Guba, 1981; Lincoln & Guba, 1985). For instance, I attended all the study sessions for the selected five professional development circles. I also observed one session of three other groups to have comparison points. I collected data from diverse sources, such as observations of online/offline sites, interviews, and learning artifacts. Finally, I kept collecting online data after leaving Chicago.

Participants

Four staff members comprised P2PU team that provided technical and pedagogical support to volunteers. After the pilot round, they launched a toolkit with a *new* handbook and new recipe cards, application forms, promotional flyers, a guide for navigating diverse MOOC platforms, certificate templates, and a learner feedback survey. All these materials are available and free on their website. They also developed workshops for the facilitators. Peer 2 Peer University team curated online courses that could be a good fit for the Learning Circle format. However, both the library and P2PU team members selected the courses for

the round I observed. Thus, P2PU staff talked to the library's project coordinators to receive their input on the courses they believed were relevant. Also, P2PU also talked directly with librarians in diverse branches to understand which courses would be appealing to their specific communities.

The library project coordinator recruited volunteers and provided them with logistical support, such as making sure everybody had all needed equipment to run their groups. Facilitators were branch managers, librarians or outsourced staff (cyber navigators) who voluntarily signed-up for the position. They were responsible for keeping conversations flowing, for writing weekly feedback to P2PU, taking attendance, and providing learners with material resources, such as computers, headphones, printed lessons, cameras for recording speeches, etc. I interviewed 13 facilitators and two project coordinators during my fieldwork.

Learning Circles were free and open to everybody interested in joining them. Students in their early 20s to their early 80s participated in these groups. Even though the age range was broad across Learning Circles, each group ended up attracting a more homogenous set of participants. For instance, the NCLEX group had college students or recent graduates. The coding group started with age and sex diversity but ended up just with four men. While the majority of participants were born in the USA, few of them were not English native speakers. Participants were also racially diverse, including Caucasians, African-Americans, Asians, and Latino descendants. I interviewed 23 students – 15 women and eight men. My interviews reveal that 16 did not have previous experience with online learning and approximately half of them had no internet connection at their places of residence.

The feedback survey that P2PU sent out to learners in all Learning Circles (not only the professional development ones) offers further insights about learners. Twenty-six learners responded the survey, and the results reveal that 12 of them joined the Learning Circles to increase their employability, 4 to enhance professional skills, 1 to accompany higher education studies, 7 to fulfill a personal interest, and 1 for other reasons. Also, there were six full-time workers, six part-time employees, eight unemployed individuals, and three students. Thus, this overview confirms that Learning Circles offered opportunities for studying an audience with little experience with online learning and that sought open education mainly for professional development.

Data analysis

I conducted an inductive analysis that involved three steps – data formatting, coding, and reduction. First, I formatted interviews, field notes, and artifacts before importing them into QDA Miner Lite, a computer program for managing data. A professional third party company transcribed all my interviews. I assigned numbers to all my interviews to eliminate personal identifiers. Next, I typed on Word documents descriptive summaries of my hand-written field notes. I applied codes to these summaries but used the actual field notes when analyzing my data. Finally, I imported interview transcriptions, descriptive summaries, and internet artifacts into QDA Miner Lite.

On a second stage, I used the constant comparison method (Glaser, 1965) to code my data on QDA Miner Lite (Figure 4.2). This stage of my analysis involved identifying patterns to create categories that answer my research questions. After the first round of initial coding (Charmaz, 2000), I gained a broad perspective of recurring topics in my data and wrote one

more research question (RQ 2) related to participants' learning preferences. I created my final coding scheme by comparing excerpts of data within and across categories until reaching saturation. I followed Glaser's method (1965), who explains that "as the coding continues the constant comparative units change from comparison of incident with incident to incident with properties of the category which resulted from initial comparison of incidents" (p. 440). For instance, initially, I had a category called "Comparing to each other" (RQ3) that later became part of the category "Caring for each other." I merged them because participants said that studying with other people facing similar challenges brought them comfort and the perception that everybody was "in the same boat." During the coding process, I also broke down categories. For example, I separated the category "Created a dynamic negotiation of roles within LC" (RQ1) from "Created tension points" because the first one deals specifically with logistics and content management within the study groups. The coding process also involved memo taking (Boeije, 2002) that helped to consolidate my final coding scheme. All these techniques allowed me to compare distinct data sources and triangulate my information. For instance, the comparison of field notes, interviews, and P2PU/MOOC materials revealed tension points (RQ1) across distinct levels of the Learning Circles project.
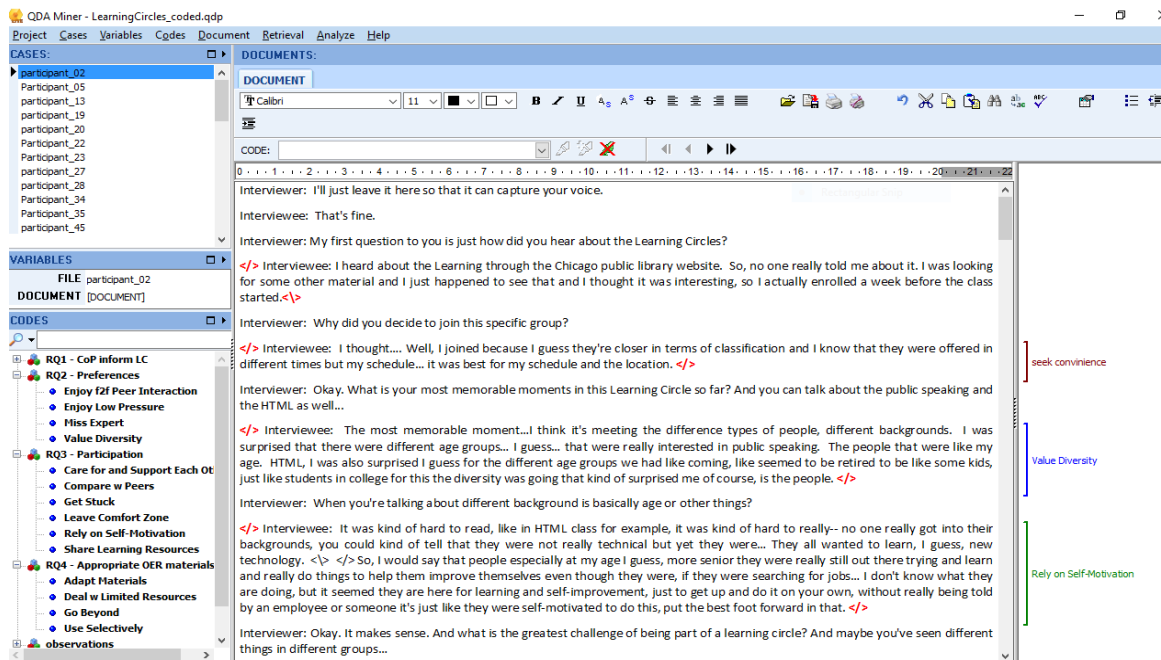
Figure 4.2. Coding Scheme. This figure shows my data coded on QDA Miner Lite.

In the final stage of data analysis, I selected the most pertinent categories to include in my results. Glaser and Strauss (1967) call this step reduction, in which "the analyst may discover underlying uniformities in the original set of categories or their properties, and can them formulate the theory with a smaller set of higher level concept" (p. 110). Thus, I selected patterns that appeared in several interviews and field observations. As Bernard and Ryan (2010) explain, "the more the same concept occurs in a text, the more likely it is a theme. How many repetitions make an important theme, however, is a question only you can answer" (p. 57). For this reason, I discarded codes related to isolated opinions or incidents. For instance, a learner explained that he did not enjoy the small print of the MOOC materials. Another participant said she did not like using the internet and MOOCs because she was afraid of surveillance. Even though these pieces of information raise pertinent issues, they do not constitute a pattern in my data.

This data analysis resulted in 16 categories that answer my four research questions and provide an overarching view of the Learning Circles initiative. This dissertation is the first academic work on the project and this fact guided my analytical choices. Thus, I opted for a method that revealed patterns across study groups and highlighted their most striking characteristics. To ensure the credibility of my analysis, I used peer debriefing (Guba, 1981; Lincoln & Guba, 1985). Therefore, I shared my codebook and an outline of my result chapters with a peer. I explained the rationale for each category and received his feedback. Additionally, I used member checks (Guba, 1981; Lincoln & Guba, 1985) and asked two project coordinators to look at my literature review, methods, and results chapters. They provided feedback on the portions of this dissertation that describe Peer 2 Peer University, the Chicago Public Library, and the Learning Circles project. I made changes to my chapters based on their comments.

The next chapters provide a thick description (Geertz, 1973) of my 16 analytical categories, organized according to each one of my research questions. I extensively describe these categories and systematically use direct quotations to give voice to participants' points of view (Van Maanen, 2011). Throughout the results, the sexes of learners remain unchanged, and I do identify the study groups they joined. This strategy allowed me to describe with nuance each Learning Circle I observed without revealing students' identity. There were fewer facilitators, so it was easier to identify them. For this reason, I used gender neutral names and did not disclose their Learning Circles to increase the probability that their identities would be protected. I did not use direct quotes from the weekly meetings between P2PU and Chicago Public Library to also protect participants' identities. Finally, I disclosed

the real name of the project I studied because of its uniqueness[3]. Learning Circles offer a new

model for learning in the digital age, so the institutions involved with them should receive

credit for their work.

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[3] Project coordinators from Peer 2 Peer University and Chicago Public Library gave me permission to disclose the name of their institutions.

Chapter 5 - Interactions Informing the Learning Circles

My first research question asked: how do interactions between project coordinators, facilitators, students, OERs, and digital technologies inform Learning Circles? Learning Circles *structured participants' study routine* by providing them time and space to focus, an accountability group, and a learning plan. This model helped them but it also *produced tension points* between the massive character of the courses and the local nature of the groups. Additionally, tensions emerged between P2PU's vision and the project's implementation[4]. Within the groups, I observed a dynamic negotiation of roles as students and facilitators took turns in being responsible for content related issues, group logistics, and conversation flows. Finally, Learning Circles *enabled a distributed model of expertise* that learners could describe; however, they did not always understand the relations between the project's layers.

Structured Study Routine

Participants who joined the Learning Circles found a structure to their study routine resulting from the Chicago Public Library and Peer 2 Peer University's combined work, the MOOC affordances, and the physical infrastructure of the library system. These elements provided a dedicated time and space for participants to study, created an accountability network, offered a pre-established plan for their learning, and gave them access to digital technologies. Later, I will discuss how the combination of these elements created tension points. Now, I will focus on how Learning Circles helped students pursue their goals through

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[4] It is fundamental to highlight that I studied the pilot round and coordinators were making changes to the project.

structuring a study routine. During my interviews, several participants highlighted the challenges of focusing on the online course and the ways in which P2PU's Learning Circles provided relief from those challenges. Specifically, Mario indicates:

> You are just at home, you know? And then when you are sitting at the house, and you are reading through it [MOOC materials]… Life happens… You have your daughter doing this, your wife asking you this, you know? Then you have your parents calling you up and asking you about something or telling you about something. Your life is still happening at your house. Here, [at the library] you are away from your house, even if it's just for one hour (Mario, Resume Writing and Interview Skills circle).

Like Mario, many other participants pointed out similar challenges regardless of their age, marital status, or profession. "I have roommates, so if I want to study at home, I have to work around their schedules which is not always the most fun thing to do. And if they are at home, then I usually have to find somewhere else to study (Victoria, NCLEX/Registered Nurse Prep Test circle). In simple words, life got in the way of participants trying to take MOOCs. However, the library environment gave them the chance to focus their efforts. "I'm not in my house. I'm in the library. You can say that helps you. I always want to get a snack at my house." (Teresa, NCLEX/Registered Nurse Prep Test circle).

Learning Circles also provided an accountability network for students. In other words, the presence of other people in the groups helped them to stay on track. "Well, the group helps me because I'm lazy. And people do things in groups because they are lazy. If they do it by themselves, they'll start it, and they won't get it done" (Amanda, Start Writing

Fiction, Beginner's Guide to Writing in English, Intro to HTML & CSS circles). The presence of peers motivated them to attend meetings and to work outside their groups, as Victoria highlights:

> I think when you set a goal, and you have other people to help you, like to meet up, you know? Like, we say we're going to watch these certain videos or do this certain content, you're more likely to get it done because you're like, okay, and you're really like… I have to uphold my end of the bargain and contribute to this conversation in a meaningful way (Victoria, NCLEX/Registered Nurse Prep Test circle).

I did not observe participants' routines outside the Learning Circles, but it was possible to notice their work by looking at their groups. They came to meetings with content-related questions, were able to summarize MOOC lessons, and brought materials prepared during the week. For instance, I observed participants in the two public speaking groups presenting speeches to their colleagues.

The MOOC platforms and Peer 2 Peer University provided a pre-established learning plan for participants. Almost all courses offered a syllabus with weekly readings, videos, and activities. Khan Academy organized its content through topics covered in the registered nurse test. Nevertheless, all of them gave a structure for students to navigate the content. P2PU created weekly activities to help groups bond and maximize their work. Finally, the library infrastructure gave participants access to digital technologies, such as laptops and internet connection.

I think the library is good. The library is good because you have the

technology there. For a course like this where you, basically, need a room,

you need internet connection, and you need everybody using the place so, I

would say unless there's a problem with people getting into the library, I

mean, it's free. I like them [Learning Circles] at the library" (Michael, Public

Speaking and Intro to HMTL & CSS circles).

As described in the methods chapter, not all participants had an internet connection at

home, so the library system played a fundamental role in giving them access to open

educational resources. I further explain how participants dealt with limited access to

technologies in Chapter 8.

Produced Tension Points

As I described in the previous section, the Learning Circles model assembled material

and immaterial resources under a single initiative. This combination produced a project with

several layers. There was the MOOC platform that targeted primarily online learners, P2PU's

vision for the project, Chicago Public Library's specific needs and goals, facilitators and their

local branches, and learners from diverse backgrounds. This combination produced tension

points between the online courses and the face-to-face nature of the study groups; the

massive design of MOOCs/P2PU's materials and the local character of Learning Circles; the

project's plan and its implementation.

Massive open online courses targeted online audiences and prioritized asynchronous

forms of communication. All the platforms that P2PU and Chicago Public Library used in the

pilot round emphasized self-paced learning. For instance, Khan Academy offered "practice

exercises, instructional videos, and a personalized learning dashboard that empower learners

to study at their own pace in and outside of the classroom" (Khan Academy website, 2017).

FutureLearn invited users to enjoy "free online courses, wherever you are and whenever you

want" (FutureLearn website, 2017).

Within the groups, this flexibility created a problem when students covered materials

at different paces. For instance, Oakley said that students used individual laptops to watch

course videos in their first session. She believed this was the reason why students did not

attend subsequent meetings: "It felt kind of pointless. Like, they could be at home, in

pajamas in their bed. And that's probably what they all decided because they didn't come

back" (Learning Circles facilitator). Similar situations unfolded during the first day at

another Learning Circle:

> Well, what happened the first week was that we came in and we signed on [the
>
> MOOC]. And the videos… your video was saying, "Blah, blah, blah." And my
>
> video is on module two. This person's video is on module three. And then you
>
> have all this. So what we heard the first week was "Blah, blah, blah." And I
>
> can't hear my stuff. So then what we said was that if we're taking this class,
>
> we're only going to take it at one time. So then we just use the common, the
>
> facilitator's machine [laptop and projector] (Amanda, Start Writing Fiction,
>
> Beginner's Guide to Writing in English, Intro to HTML & CSS circles).

As this participant described, almost all groups ended up using a projector so students

could watch videos and take quizzes together; however, they kept using individual machines

for the courses with many readings, such as the Resume Writing and Interview Skills.

Outside the Learning Circles, participants also covered materials at different paces and, for this reason, many of them had to watch some videos more than once. In these cases, they had to be flexible to accommodate their peers' needs. Magdalena, for instance, told me that she was watching repeated videos because her colleague worked at a slower pace at home. Nevertheless, she benefited from her group's feedback and interactions. Students almost did not interact with other peers through the MOOC platform. The exception was a Writing Fiction circle in which they discussed the feedback received online with their face-to-face colleagues.

In addition to online and offline clashes, the massive character of the MOOC did not always fit the local context of Learning Circles. For instance, the Resume Writing and Interview Skills course focused on college graduates, but most participants were adults with job market experience. NCLEX students did not always understand why some quiz alternatives were considered right. HMTL & CSS participants believed the MOOC instructors skipped steps in their explanations and they struggled to follow the lessons. In the Public Speaking course, the instructor used several examples that did not relate to students' reality. For example, after listening to a series of videos talking about MOOCs, a participant asked: "What is a MOOC again?" Additionally, facilitators often felt that P2PU's activities did not relate to their group dynamics.

It is important to note that, overall, students approached learning materials critically and reflectively. For instance, in the NCLEX group, students read the website's explanation after selecting a wrong alternative. They reached the conclusion that the quiz considered a hospital with all the perfect conditions for treating a patient. However, they would rarely

work under the same conditions in practice. In an Intro to HTML & CSS circle, Jacob believed that MOOC instructors would be more successful if they used more visual materials and presented coding as an art and a language. Paula thought that Learning Circles coordinators should understand better the local reality of learners: "You need to take into the consideration the need of the community and have these – have it stated. Learning Circles are… they should be tailored in consideration to culturally sensitive communities" (Paula, Public Speaking circle). I witnessed instances of critical reflection like these across all the groups during my fieldwork. I further explore how participants dealt with these types of situations in chapter 8.

Finally, I also observed tension between P2PU's proposed model and its implementation. The facilitator handbook explains that "Learning Circles are lightly-facilitated study groups for learners who want to take freely available online courses together, in-person." (Peer 2 Peer University Facilitator Handbook, 2015, p. 2). According to the handbook, facilitators' basic duties refer to providing the infrastructure for the groups and modeling conversations. They also suggest that facilitators should delegate responsibilities to students:

> A good facilitator empowers learners to take charge of their own learning, making the role of the facilitator smaller and smaller over time. As the Learning Circle progresses, the facilitator can start asking learners to take on some extra responsibility, such as:
> - Send a wrap-up email afterwards reflecting on the day's class
> - Summarize the week's material at the beginning of each class

- Set up/clean up the space

- Share a resource or article that relates to the course content

- Help a learner who is struggling

- Bring snacks (Peer 2 Peer University Facilitator Handbook, 2015, p. 19).

Peer 2 Peer University guided facilitators to put learners in charge of their groups. However, the size of groups fluctuated throughout the six weeks, a situation that required them to update new learners and keep groups cohesive. In practice, some facilitators reported that they encountered more work than they were expecting:

It never ceases to amaze me how much it takes out of you to deal with a group of people and to always, you know, to be constantly helping them, constantly being cheerful and, you know, positive outlook, having a smile on your face, rolling with it, you know, for one hour and a half. I just get exhausted. I'm like, I'm not – my brain is only, like, functioning at half right now (Phoenix, Learning Circles facilitator).

Other facilitators also reported being tired and having to deal with more duties than they expected. Some of them worked outside the Learning Circle space to understand beforehand the materials learners needed, such as specific types of software, tools, printed lessons, etc.

It is important to highlight that I studied Learning Circles in their pilot round and coordinators were still making changes to the project, which could account for having more than one facilitator per group or preparing them beforehand to the amount of work they would

face. I attended weekly virtual meetings between P2PU/Chicago Public Library, and I could observe that they constantly asked for facilitators' feedback. They wanted to assess how much work it took to run a Learning Circle and understand their main challenges. Some of the facilitators told me that they believed that obstacles could become smaller in the future. As more people ran Learning Circles, they could share their experiences with each other:

> I kept thinking, this is just a prototype (Lauhgs). This is like…What went wrong? What can we troubleshoot this next time? I think no one else in the [library] system has done, especially, this kind of class. Ideally, if someone had already done this class with this particular format, it would had been great to have a conversation ahead of time, and be like… "Well, one of my… you know? How is this gonna be? Is there something along the way that I have to anticipate?" It would have been nice (Dana, Learning Circles facilitator).

Being that this a pilot round, facilitators were performing their role for the first time. As a consequence, some of them also reported feeling anxious. Dominique, for instance, explained that "if I had the chance, I probably would be more relaxed because I had a lot of high anxiety going into this, probably like some learners" (Learning Circles facilitator). In summary, the fact that I studied their pilot rounds needs to be taken into consideration when looking at these tension points as they could be a natural bi-product of a commitment to constant improvement.

Created Dynamic Role Negotiation

Peer 2 Peer University instructed facilitators to guide conversations in the groups, but also delegate responsibilities to students. In some Learning Circles, students took charge of their groups; however, overall, I observed a dynamic negotiation of roles throughout the six weeks. As Phoenix explained, she had to be diligent in redirecting conversations "because if you're not consistent in directing it back to the learners, then you're, like, you are defeating the purpose of the whole point honestly, of the Learning Circle" (Learning Circles facilitator). Learners and facilitators alternated who dealt with *content related issues*, *group logistics*, and *conversation flows*. After analyzing my field notes and interviews, I created four distinct roles that describe the interactions unfolding in these groups. Students and facilitators performed the roles of *instructors*, *group coordinators*, *co-learners,* and *cheerleaders*.

Students and facilitators, who acted as instructors, clarified doubts, taught new concepts to other people, summarized MOOC lessons, and asked questions to assess people's comprehension. For instance, in the NCLEX circle, I saw participants explaining new ideas to their peers. These types of interaction also involved the uses of technologies. For instance, in the Resume Writing circle, the facilitator taught a student how to sign-up for the MOOC. Individuals in the role of instructors also summarized MOOC lessons to others. For instance, in one of the Public Speaking circles, the facilitator always wrote down on the white board the main ideas from Coursera's lectures. She would annotate things such as: "be honest/do what works/be on point/be precise" or "failing is also learning." Finally, they asked

questions to check people's comprehension of the materials. This usually happened after they watched a video: "Do you have questions?" or "Are you familiar with these speakers?"

Normally in a classroom, the instructor holds the expertise and controls classroom dynamics. Here, I am separating these two roles because they involve a different set of skills. Thus, in the Learning Circles, group coordinators dealt with logistics. They decided which lessons and in-class activities to cover, brought printed materials to the class, and provided digital tools, such as cameras, new types of software, etc. Facilitators were in charge of providing materials resources to learners. Additionally, they were always the ones informing new participants how the group worked. Usually, learners and facilitators took rounds in deciding which materials to cover. For instance, in one of the Public Speaking circles, learners asked facilitators which topics they should study at home. After some weeks, they started to choose lessons by themselves. They also alternated in deciding in-class activities. Facilitators would ask questions such as: "What do you want to do?" However, sometimes no one would take the lead, so they ended up proposing a plan. "Maybe to just have some sort of a backup plan like a curriculum, maybe have some sort of activity planned out that they could do together instead of just relying on you know, them actually coming up with something" (Casey, Learning Circles facilitator). Likewise, another facilitator created activities for students based on MOOC prompts:

> I would really keep an eye out for any opportunities for there to be something that is like group work, like even a couple of times in a course that we were taking quizzes, it was kind of like there was nothing else. It was like maybe we should print out the quizzes and have them all coming on it together. You

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know what I mean? Kind of just getting people off of the individual and I know that they are taking the course individually, but it helps them see each other as co-learners in the same group when they are sitting together without the computer (Taylor, Learning Circles facilitator).

Co-learners shared resources, gave feedback to their peers, disclosed their learning strategies, posed questions to each other to foster discussions, offered their opinions and ways of interpreting something. Unlike instructors who explained a concept to their colleagues, co-learners thought problems alongside each other. I saw these types of interactions taking place when they took quizzes together, delivered speeches, and helped to solve content-related problems.

Cheerleaders kept learners motivated through positive statements that reframed challenging situations. I saw these types of interactions unfolding in all Learning Circles. For instance, in the intro to HTML & CSS circle, two facilitators encouraged participants to go beyond the MOOC to find answers. In the NCLEX circle, a facilitator constantly encouraged students to keep a positive attitude in the face of challenges. In one of the Public Speaking courses, a student said that he was overwhelmed with the MOOC. The facilitator replied: "We are here, we will support you."

It is interesting to notice that some students told me that facilitators were "more involved than they wanted to be." I heard variations of this statement from few participants in different groups. After comparing my field notes and interviews, I reached the conclusion that facilitators followed P2PU's advice and tried to make students take charge of their circles. As I described in this section, this attempt created a dynamic negotiation of roles. In

some cases, this negotiation came across as facilitators having to carry an extra burden. Nevertheless, students were grateful for having someone to help them. In summary, the constant negotiation of roles followed a less linear model than the facilitator handbook suggested. This dynamic also differed from a traditional classroom in which the instructor usually coordinates content, logistics, and motivates students.

Enabled a Distributed Model of Expertise

I started this chapter explaining how the Learning Circles assembled material and immaterial resources. This combination created a distributed model of expertise in the groups. As I described in the previous section, both facilitators and learners contributed to content/technology related issues and group formation dynamics. Additionally, the MOOC provided basic content for learners who also explored additional online/offline resources (see chapter 8). Finally, Peer 2 Peer University provided group formation inputs.

These points of expertise were visible because participants referred to them in their groups and interviews. For instance, at the beginning of meetings, facilitators would say: "Today Peer 2 Peer University wants us to..." Likewise, many students mentioned Peer 2 Peer University in their interviews. They also mentioned the MOOC instructors to praise or criticize their performance. Michael, from a Public Speaking circle, highlighted that sometimes the MOOC instructor "talks a little fast and you've got like...it's just natural. But the structure is really good for public speaking, it is like a university professor. He's speaking like he's in a lecture, so I think that's very professional." Even though facilitators helped with content-related issues, all the participants that I interviewed were able to explain that there

was not a centralized instructor's figure in the Learning Circles. Mario, for instance, contrasted his group with a traditional learning setting:

> The last time I went [to school] was basically college and, you know, it's like similar to high school, where you got the teacher or the instructor sort of like… "This is how it is and what not." Yeah, you might pose a question: "Why?" You know? But this way, it's like I said earlier, it's like a little bit, everybody giving a little feedback or pointing in the right direction or… You know? Instead of just having the teacher or the instructor saying "This is what is up, you know? You got everyone sort of in this environment; you got everyone just sort of putting a little bit in and giving a little feedback on what works for them or what was good for them or does work. (Mario, Resume Writing and Interview Skills circle).

Even though learners were able to distinguish the several layers of expertise in their groups, some of them did not understand the relations between these layers. As Taylor explained, after several weeks into her Learning Circle, she realized that the model was not clear to a student:

> A couple of weeks ago, one of the women started talking to me and asking me about an online class and I really, for a second, I didn't understand. I thought that maybe the learning circles had started again, but I knew that they haven't. And she honestly had just decided to sign up for another online class, and she thought, for whatever reason, that I had something to do with that, that I was like an online class person or that I would totally know that she had decided to

take this. I forget what kind of class it was you know? It wasn't a learning circle,

it wasn't like another branch, it wasn't anything. We had to go way backward

and talk to her about these open online classes. And then I had to go back and

re-establish the whole… what CPL [Chicago Public Library] and P2P, what

were they doing here. That kind of surprised me because I did think that

everyone kind of…There were no issues with people in the group asking us

questions like you were a teacher or anything, you know? They didn't expect

us to know, but then that kind of really did put me off a little bit because she,

definitely, did not understand what online classes were. (Taylor, Learning

Circles facilitator).

Unlike this student, others could separate the several layers of the project. Some of

them said that they felt encouraged to take free online classes by themselves after they joined

a Learning Circle. Even though the Learning Circles offered several expertise points for

students, P2PU's facilitator handbook advised users to manage their expectations:

It's unlikely that somebody with no programming background will get a

programming job after one HTML/CSS Learning Circle. However, they will

gain a better understanding of how to build a website, get a sense as to whether

this is a subject they'd like to continue in, and have a peer group of like-minded

individuals they've gotten to know (Peer to Peer University Facilitator

Handbook, 2015, p. 19).

In summary, the Learning Circle model offered a distributed model of expertise and

support that differed from classrooms. In more traditional learning settings, the instructor

usually concentrates and coordinates all these layers. This was a model that learners had to adapt to throughout the weeks.

Summary

The Learning Circle initiative brought together technical infrastructure, volunteer work, and online open educational resources. This model provided a support network to learners, but also created tension points. The project offered a learning environment of distributed expertise between humans and technologies across online and offline realities. This scenario differed from traditional learning settings and required learners' adaptation.

Chapter 6 - Features of Learning Circles

My second research question asked: what features of Learning Circles support or detract from students' participation in their groups? My data analysis revealed four clear and distinct patterns in the professional development circles. *Low stakes evaluation* helped learners to engage with their groups. Thus, little peer judgment and the absence of tests/grades created a more relaxed learning environment. *Face-to-face interactions*, such as discussions and in-class activities, also enriched their learning experiences. However, students did not always take the initiative to foster this type of engagement. My data analysis suggests that many of them expected facilitators to coordinate the groups. Additionally, some of them were too shy to take leading positions. *Intellectual diversity* played a crucial role in these groups. Overall, participants framed in positive terms any difference that could contribute to their learning progress. Finally, the lack of an *in-person content expert* created challenges in these groups. Participants perceived the expert as someone who could help them overcome obstacles, save their time, and evaluate their work.

Low Stakes Evaluation

Students highlighted two characteristics to define low stakes evaluation in their Learning Circles: no grades and little peer judgment. The online courses offered quizzes and test to participants; however, Peer 2 Peer University granted certificates of accomplishment-based on attendance and not on academic performance. Additionally, my interviewees were not interested in receiving certificates from the MOOC platforms that offered them this option. As a consequence, the absence of mandatory tests reduced their anxiety of having to master all MOOC contents. For example, Michael joined a Public Speaking circle to improve

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his ability to sell products and talk in front of big audiences. He explained that the lack of grades made his study routine lighter:

> In terms of studying, for me, it's not like a university or class because you're not being tested on it [course content], you're not taking quizzes on it. You know, sometimes, you know? You may get lost over some things and some days you don't have to do it all because you're not trying to graduate. And just for me, it's not a lot of… It reduces pressure (Michael, Public Speaking and Intro to HTML & CSS circles).

Like Michael, Jacob also enjoyed the low-pressure of his study group. He enrolled in an Intro to HTML & CSS circle to take more advanced college classes in the future:

> You don't have grades, and you don't have to do homework. There's no such thing as you're not going to have a test on this [course content], but in a math classroom, you got a test coming, you've got to prepare. This is just less pressure (Jacob, Intro to HTML & CSS circle).

Some participants thought it was important to reach a balance between flexibility and structure because low pressure could prevent groups from moving forward. In other words, group members would cover materials at different paces (see chapter 5) and would not follow defined steps to reach their goals:

> I think having a vague schedule, or a template would help focus the conversation, like, with the amount of content that there is and then, essentially, five weeks to kind of cover it. However, it's also nice to provide the flexibility of… I mean, nurse students are already really busy. It's another thing like, "Oh!

You have to get this much done this week" (Victoria, NCLEX/Registered

Nurses Test Prep circle).

Low peer-judgment also reduced pressure in the Learning Circles. This situation encouraged self-defined introverts to participate in group discussions. They enjoyed this aspect of Learning Circles in comparison to other environments, such as regular college courses or academic study groups. When I asked Miriam how Learning Circles differed from other settings, she explained:

> It's not judgmental. I like that part. When I first started school, I tried. I tried a
>
> study group. I didn't like it because it was like you should know stuff and if you
>
> don't, you know, you're not doing your part. I'm like, this is a study group.
>
> That's *what we are supposed to do,* ask questions. But when I get here, it's, I
>
> don't know. It's like… I get to ask questions and not feel judged. Like, okay, I
>
> am not stupid (Miriam, NCLEX/Registered Nurses Test Prep circle).

Low-levels of judgment also made Paula feel safe to express opinions in her Public Speaking group. This senior participant, an African descendant who was born before the civil rights movement, faced racial discrimination throughout her life. She told me that, given her personal story, being able to talk without feeling threatened represented a relevant achievement:

> I found that I was in an environment [Learning Circles] that I could not try,
>
> but I could feel that I can express… whatever I wanted. And there were
>
> people there… Yes, yes… and have a collaboration. Mostly, because I am a
>
> spiritual person. I just don't go in and observe just from the surface. I observe

also from the spirit - I feel… and I felt at peace (Paula, Public Speaking

circle).

Like Paula, other participants felt at ease in their groups. There was not much conflict in the Learning Circles, but friction sometimes happened in these groups:

One of the ladies that was there the first week, she wasn't there yesterday. And then two additional ladies came yesterday. And so, the facilitator was going over stuff, and then one of the new ladies said, "Oh, she," meaning me, "She didn't participate." To which I told her, "We did this last week, so leave me alone." *[laughter]* "You weren't here dear. You're a straggler, and she's [facilitator] going over stuff for your benefit" (Amanda, Start Writing Fiction, Beginner's Guide to Academic Writing, and HTML & CSS circles)

Experiences like the one described in this quote were not common in the study groups. In summary, little peer judgment and the absence of grades created a relaxed learning environment that encouraged students to participate, ask questions, and express opinions. Sometimes, this flexibility prevented groups from becoming more structured and goal-oriented; however, most of participants preferred the low-pressure in their Learning Circles.

Face-to-face Interactions

According to participants, face-to-face interactions enriched their learning experience. They mainly discussed course materials, took quizzes together, and engaged with in-class activities, such as presenting speeches. Students pointed out three main reasons for preferring interactions instead of just watching videos and readings articles: 1) the opportunity to learn from their peers; 2) the possibility to receive feedback on their work; 3) the chance to have

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hands-on experience. Morgana, an entrepreneur who took Public Speaking to grow her business, explained "wherever your challenges are, you gotta get through them. And for me, in Public Speaking, that's what happens the most. Whatever is going on, you gotta deliver it. So, I want to become more perfected at doing that." Like her, Magdalena also believed that hands-on activities helped to improve her Public Speaking skills:

> I listened to the video twice on the online course, and I was just feeling that I could not comprehend it. I just wasn't grasping the concept as much. I understood what he [MOOC instructor] was saying, but I just didn't know how to put into practice and, so I felt that doing the study group helps to put it into practice. It's not just thinking it or not having any real practice sessions, so I think that's been helpful for me - the interaction with other people in the group (Magdalena, Public Speaking and Intro to CSS and HTML circles).

Peer 2 Peer University told facilitators to make students highlight the positive and negative points of their study sessions every week. Thus, several participants from the NCLEX group pointed out that they enjoyed learning from their peers. I heard similar testimonies from interviewees across all Learning Circles.

I noticed a discrepancy between structures that facilitated learning and participants' engagement with those structures. Even though learners enjoyed face-to-face interactions, they did not always take actions to promote this type of engagement in their groups. For instance, during one of the NCLEX meetings, a facilitator asked students if they wanted to control the computer plugged to the projector. A female participant volunteered to be in charge, but after a couple of minutes she said: "Does someone wants to read [the quiz questions on the Khan

Academy website]?" No one volunteered, and another female student suggested: "We can probably use our laptops." The three students present that day sat around a laptop, and one of the girls asked a young man: "Do you want to read the questions [out loud]?" He replied: "You guys can go ahead." I observed similar situations in other groups as well. After a Learning Circle session, Jules told me: "I think students in this group do not like to participate too much. They are here more to receive information" (Learning Circles facilitator).

My interviews with participants offered insights into the disconnections between the structures they indicated as supportive of learning and their actions within these structures. Many participants perceived facilitators as the authority in charge of planning group logistics and proposing class activities (see chapter 5). Others just preferred having facilitators organizing the groups instead of them. "I like to look towards some kind of a leader and some capacity if I'm in a learning environment. Someone to kind of just manage what's going on" (Bianca, Public Speaking circle). Other interviewees told me they were shy.

Overall, all participants wished they had more peer interaction in their circles. Some groups spent a great part of their time just reading and watching videos. As a student summarized: "It's just weird doing an online class with a group of people… and not so much interaction. Not that I want a lot of interaction, it's just that it's not how I thought it was going to be." In summary, participants believed that face-to-face interactions improved their learning experience; however, they did not always promote this type of engagement in their groups.

Intellectual Diversity

Intellectual diversity helped students advance in their learning. For instance, Silvia joined the NCLEX circle to help her prepare for the test. When I asked the advantages of

having a face-to-face study group, she told me that people's diverse backgrounds contributed to her learning:

> Advantage… I guess getting other people's input on things and everyone's point of view because everybody comes from different backgrounds, so they are able to contribute what they learn. I could learn from them as well because they might have good tips I didn't really think of before on how to use for myself, so that would be one of the advantages. The way they study, they may have different techniques, they go about understanding this question, they may break it down this way or another person may break it down this way. So it was like how they study, their technique on what they have been doing and what works for them. And then I could learn from them, which I try to use for myself so make that better for me. (Silvia, NCLEX/Registered Nurses Test Prep circle).

Like Silvia, almost all interviewees saw diversity as an asset for their learning. They defined diversity in broad terms, such as cultural background, opinions, personal trajectories, academic formation, age, professional experience, etc. In summary, they framed in a positive light all types of differences that could contribute to their learning.

Learners perceived diversity as a problem when it prevented the group from moving forward. This situation normally happened when participants had very low experience using digital tools. Magdalena, for instance, enrolled in an Intro to HTML and CSS circle to refresh and improve her knowledge on the topic. However, she thought it was challenging to be in a group in which people had very diverse digital skills:

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I think one of the most difficult issues for the facilitator that I had observed is that their [participants'] computer, general computer skills, are very broad. So, someone who cannot even turn the computer on to someone who is extremely advanced. I think it has been difficult for her [facilitator] to keep us all on the same path and to keep us aligned within the course. Because you have some that don't have the grasp the first or second week and you have some that have already finished everything. And me, I feel that I fall in the middle (Magdalena, Public Speaking and Intro to HTML & CSS circles).

Victoria, who was part of one of the NCLEX circles, benefited from her group. She constantly explained concepts to her colleagues and believed that teaching helped her to grasp course content better. However, she acknowledged that Learning Circles could become frustrating if some students had persistent problems in understanding new ideas.

Lack of Content Expert

Almost all participants pointed out the lack of a content expert as a challenge in the Learning Circles. According to them, the expert could help to overcome obstacles, save their time, and evaluate their work. In my on-site observations, I could notice that sometimes students became stuck on content-related issues. Michael pointed out that "you may get stuck somewhere…just, just do it. Try it, ask questions, and don't be intimidated." Unlike him, I saw participants voicing their frustrations for not having an expert around when they did not understand MOOC lessons. In these occasions, facilitators prompted them to reframe the situation (see chapter 7).

Learners perceived the expert as the person who could help them overcome obstacles, but also as someone who could save their time. Harry, for instance, taught math classes at the high school level and enrolled in an HTML & CSS circle to design websites for his courses. He did not have the time to search for answers to his questions, so he preferred to have someone to guide him. Learners also perceived the expert as the person who could evaluate their work. Magdalena highlighted that the Learning Circles and the MOOC helped to build her confidence in public speaking and that she learned new concepts. However, she missed having someone to validate her progress: "To have someone to really evaluate that [the speeches] because that's what I… you know? I want evaluation just to confirm that I am growing, that my skill at Public Speaking is getting more advanced over time."

When I asked participants which changes they would make to the Learning Circles, many of them said that they would like to have a content expert around. In fact, Victoria perceived the instructor's absence not as an inherent characteristic of the Learning Circles, but as a transitional state of the project: "Maybe as they continue to have programs like this, they will make modifications to make it something that it is actually… really well-rounded I guess… I don't know." It is interesting to notice that Victoria highlighted many benefits that peer learning brought her. Nevertheless, she still missed the expert and, as other students, perceived this absence as a challenge.

Some facilitators also missed being the expert in their groups. Many of the librarians ran other programs at their branches to their communities, such as book clubs and computer classes. In these situations, they were the content experts. Some of them reported that it was a challenge to be a facilitator who does not understand the MOOC content. Their automatic

impulse was to give instructions to participants and be in charge of the groups. However, the Learning Circle model required a more hands-off approach.

Learners from one of the Creative Writing circles were the only participants who did not miss the expert. Two interviewees told me that they often felt bored at school:

> Yeah, I feel much more relaxed [in the Learning Circles] because, you know? I never liked school. You know? School was just something that had to be done, but because not everyone teaches to my learning style and because I am an action oriented learner. A lecturer… Unless they came up with something that's really creative, I probably would have long been bored, so I like the [peer] interaction [in the Learning Circles] and being able to relax" (Nora, Start Writing Fiction circle).

These two participants were also skeptical about the idea of *being an expert*. They perceived *the expert* as someone who thinks she does not need to learn anymore. According to them, individuals should always keep learning.

Summary

Learning Circles opened the possibility for students to be actively involved with their learning processes through face-to-face interactions. Low stakes evaluation favored their participation in their groups and intellectual diversity enriched their groups. These features of Learning Circles did not automatically put learners in charge of their groups. Sometimes, participants did not know exactly how to perform peer learning or thought it was their duty to promote face-to-face interactions. Even though they saw value in the Learning Circles, almost all of them missed having a content expert in their groups. These participants

presented characteristics of self-guided learners. However, the absence of some background

knowledge, time restrictions, and the lack of external validation imposed obstacles for their

progress. For this reason, many of them saw in the expert figure a solution for these

challenges.

Chapter 7- Participation in the Learning Circles

My third research question asked: what characterized students' and facilitators'

participation in the Learning Circles? Four main actions characterized involvement with

these groups: *sharing learning resources, caring for each other, relying on self-motivation,*

and leaving comfort zones. Students and facilitators shared learning resources when they

suggested additional materials, gave each other feedback, taught course content, and

disclosed learning strategies. They also supported and cared for each other. To this end, they

reframed challenges, took an interest in other's well being, and found comfort in having

colleagues facing similar challenges. They also relied on self-motivation, especially, to keep

distractions away and study outside their groups. Finally, the Learning Circle format also

forced them to leave their comfort zone.

Sharing Learning Resources

Participants shared learning resources in their circles, especially, additional materials,

feedback, prior knowledge, and meta-learning strategies. For instance, I saw learners

suggesting YouTube videos to each other on the Intro to HTML & CSS circle. A learner

noticed that his peers were struggling with content, so he showed a video to help solve their

doubts. Facilitators also suggest additional resources to the students. Many of them told me

that they were using 'Three Schools,' a website that a facilitator suggested and that teaches

coding:

> She [facilitator] gave me another course, it's called 'Three Schools', I don't
>
> know if you are familiar… She said 'use that' and that was very… it has been
>
> helpful, getting… helping me get over some of my trouble spots in the

designing… coding aspects of the HTML class (Magdalena, Public Speaking and Intro to HTML and CSS circles).

Participants also gave feedback to each other. In both Public Speaking circles, for example, they delivered speeches to their peers. In these occasions, learners and facilitators made comments about delivery, voice intonation, content, etc. For instance, Morgana told me that a peer's comment increased her awareness of her performance:

> I did the little introduction [speech] on the stage. He [peer] was… he talked about… "Oh, you move!". The podium was there, and I was supposed to stay behind, but that was just a starting point for me as a speaker. Start here, but you need to engage your audience, and he commented on that. "Oh… you move". So, that made me aware of this factor (Morgana, Public Speaking circle).

In addition to feedback, participants also shared prior knowledge that they had. Sometimes they knew a course's content and answered their colleagues' questions. Miriam, for instance, explained that her peer taught her "how to go about the PR intervals and EKG… because I really didn't understand that when I was in school because it was one of those quick things going to the next lesson…. When she taught me, I was like… 'Oooh!' It clicked." Similar interactions took place in all circles.

Students also received help when they had problems dealing with technology. In this case, I saw peers and facilitators teaching other students how to use a computer or navigate a MOOC. For instance, in a Public Speaking circle, the facilitator showed a senior participant how to enroll in the Coursera course and upload videos on YouTube. In the Resume Writing

and Interview circle, the facilitator and a peer helped a participant to navigate the MOOC platform. This same student used the library computers to study outside the Learning Circle and librarians assisted her.

Peers not only helped with content related issues but also provided insights on how to study or approach a given topic. In other words, they helped each other with the *meta-learning* aspects involved in mastering something new. It was possible to observe these interactions when students and facilitators *thought problems out loud, posed questions to each other, and offered their ways of interpreting something*. Teresa explained this type of group dynamic with her own words:

> The reality is that everybody is on different levels, and so… I don't think I am particularly smart or good at remembering things, so it's interesting for me to see when other people have a tip or something. Something like "Oh… I remember this and this because of this and this", you know? Or… You know? Like speaking of today…. Even… people do like… look at the question and identify… so today it was something 'ineffectively'… and I totally overlooked that word, and I was thinking "effectively." And someone else was 'No, no… It's ineffectively', and it made all the difference for that question… so those little things like slowing down or readings questions (Teresa, NCLEX/Registered Nurses Test Prep circle)

I saw peers appropriating each other's strategies in Learning Circles where these interactions consistently happened over the six weeks. Bianca, for instance, pointed out that

this type of learning took place in her group, but she wished more people were present in the meetings:

> More examples of how people are presenting, so I can learn from them. I do better when I learn from other people's examples. How they are addressing something. Whether it's how they are approaching their assignment or their project, even the way they are critiquing me or others, or asking questions (Bianca, Public Speaking circle).

Sharing learning resources created a sense of satisfaction when individuals helped each other. Jonathan, for instance, told me that his most memorable moment in the Learning Circles happened when he showed a YouTube video to his peer: "He didn't grasp what was in the class, but he understood why he was doing what he was doing today because we did the basic review of HTML [using YouTube], and he thanked me for my participation in the class."

During my fieldwork, I noticed groups that spent more time watching MOOC videos or reading articles and others that focused on discussion and participation. Nevertheless, participants across all groups shared learning resources with each other.

Caring for Each Other

Students and facilitators in the Learning Circles supported and cared for each other. After analyzing my field notes and interviews, I identified four patterns that describe how these interactions unfolded. Participants reframed challenging situations, they took an interest in each other's well being, and they compared themselves with other learners.

Many catalysts triggered challenging situations. Sometimes, individuals had content-related questions and became stuck. For example, learners from the Intro to HTML & CSS circle believed that the MOOC instructors skipped steps in their explanations. As a consequence, they were not able to fully follow the course. Other times, the MOOC did not relate to their local context (see chapters 5 and 8). For instance, participants from one of the Resume Writing and Interview Skills circle told me that the materials focused on college graduates. Additionally, they thought some suggestions were too basic, such as telling learners to wear shoes for interviews and say thank you. When facing challenges, some participants tended to complain and see no solution to their problems. I observed in several instances facilitators reframing the situation and helping learners to overcome challenges. For instance, in the HTML & CSS circle, facilitators encouraged learners to find answers outside the MOOC platform. I saw similar approaches in other circles as well. During a quiz session in the NCLEX circle, learners became frustrated after selecting the wrong answer. After checking the correct response, they were still in doubt. A student said: "This is the problem with this test. It's tricky." Other learners voiced similar concerns. At this point, the facilitator prompted them to think about what they learned from that wrong answer.

Facilitators took the lead in reframing problematic situations; however, sometimes learners did it as well. For instance, in the Resume Writing and Interview Skills, a learner shared a job posting with a colleague who was looking for a job. Similarly, a nursing student highlighted the advantages of having students at different points of their academic career. Her comment was sparked by a younger peer who was feeling insecure because he was not a senior in college.

Learners also found comfort when other people faced similar types of challenges.

They compared their situation with their peers and though it was encouraging to be around

people who were going through similar struggles. I saw this pattern in every Learning Circle

I attended. For instance, Juliet, a foreign student from one of the Academic Writing circles

pointed out that, "sometimes, I am thinking that maybe I have too many problems or these

things that I am thinking is personal, but then they [peers] were working in a class. I found

that almost everybody has similar problems, these are not personal."

I did not observe or hear many reports that framed comparison as competition.

However, a few students mentioned this. For instance, in the Start Writing Fiction Circle,

students said that they had to refrain from feeling diminished when another peer produced

something of quality. In one of the HTML and CSS circles, another student pointed out that

one day he "saw this guy who was working very hard. I know he did homework, I kind of

felt inferior because I didn't do homework."

Learners' interactions went beyond merely course content because they also took an

interest in each other's well being. I saw on several occasions, before the meetings,

facilitators asking how learners were. The opposite was also true. A facilitator said that he

was feeling very tired. In the following week, a student checked on him. Caring gestures also

unfolded during the Learning Circles. One of the library rooms was very cold, and students

were constantly rubbing their own arms. The facilitator noticed this situation and said that

she would have to bring blankets and hot chocolate so everybody could be warm and cozy. In

another Learning Circle, a facilitator brought cookies to learners from a celebration that was

happening in the library. I asked librarians and cyber navigators what were their three main

responsibilities as facilitators and several of them told me that they should make learners feel welcome and comfortable.

Relying on Self-Motivation

Self-motivation featured as a common characteristic amongst almost all learners I interviewed. Paula called these individuals seekers: "Someone who takes time to come into learning about their own self-development: those are seekers. They want to specifically make, they are determined to make, they come to make their difference early in their lives" (Public Speaking circle). Learners mentioned several times that they relied on self-motivation to be in the Learning Circles. Michael, for instance, believed that proactivity played a fundamental role for senior participants:

> So, I would say that people, especially at my age I guess, more senior… They were still out there trying to learn and really do things to help them improve themselves even if they were searching for jobs… I don't know what they are doing, but it seemed they are here for learning and self-improvement, just to get up and do it on your own, without really being told by an employee or someone. It's just like they were self-motivated to do this, put the best foot forward in that (Michael, Public Speaking and Intro to HTML & CSS circles).

My interviews confirmed Michal's impression. The great majority of participants took the initiative to learn a new skill, especially, to help their careers. Young participants also demonstrated self-motivation to attend their study groups. Silvia, for instance, told me that she wanted to start studying early for the registered nurse exam:

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I wanted to start doing more NCLEX questions, to start reviewing. I just want to start early so I don't have to like cram my last semester and try to hurry up and try to study for it. It takes a while to review for NCLEX so I just want to start early to get a head start (Silvia, NCLEX/Registered Nurses Test Prep circle).

Facilitators also believed that self-motivation played an important role in students' success. Sam, for instance, believed that "the appearance is most important, they should come. Set aside the time and then promise to come, come back. That would be most important thing, yeah to advice to them" (Learning Circles facilitator). Likewise, Jules also pointed out perseverance as a key disposition: "Stay focused and do not give up on the readings and continue to do the work and that will be rewarding in the end" (Learning Circles facilitator). Participants had to use their self-discipline to keep studying, especially, outside their groups. Participants mentioned that daily commitments, such as family and work, challenged them to keep studying. Monica revealed that her greatest challenge was "only finding time or taking the time outside of the class to write the résumé" (Resume Writing and Interview Skills circle). Bianca faced similar challenges:

The three greatest challenges… My dogs! Things that have to be done around the house because I'm a homeowner now and thinking about work that I have to do the next day. You know? Staying fully focused without having all these distractions. Well, I think it is just the distraction. It's different, I don't know how people who go back to school after having a family and all that, I don't know how they do it – I don't have kids yet (Bianca, Public Speaking Circle).

In chapter 5, I described how Learning Circles provided a structure to students and an accountability network. Nevertheless, they had to keep their own selves motivated. When I asked Jonathan which advice he would give others to succeed in a Learning Circle, he told me that "they would have to do [the work] on their own. Even though the class is structured, it gives you learning. You have to do extra participation out of the class to understand what's going on in the class" (HTML and CSS circle). As I mentioned in the previous chapter, Learning Circles are low-pressure because they have no tests or grades. As a consequence, self-motivation played an important role in students' progress.

Leaving comfort zones

In addition to self-motivation, participants also had to leave their comfort zone. The Learning Circle format required them to engage with MOOCs, interact with peers and facilitators, think about group logistics, look for additional resources, etc. (see chapter 5). For this reason, they had to adapt to a format that differed from traditional classrooms. The instructor usually holds both the expertise and the authority to conduct course logistics in a classroom. Students in the Learning Circles were more in charge of these aspects and facilitators helped them. For instance, two participants told me that open-mindedness was the key to succeeding in a Learning Circle:

- Be open. Be open. Be open. Have an open mind.
- If this is a learning environment that's different from something you've ever experienced before, don't shut down because it's different (Nora and Adele, Start Writing Fiction circle)

Many learners were also taking online courses for the first time. For this reason, they had to adapt to the online format that offered videos, quizzes, and interactions with peers via the MOOC platform. Jonathan, for instance, enrolled in an Intro to HTML & CSS circle because he wanted to create a dating website. He told me that he needed "to accept that this is the new learning system. Online, YouTube… This is how things are going. The future is going in this direction (…) I wanted to see how the new trend of learning online is, and Peer 2 Peer is teaching me that. This is how it is online. It is structured this way."

The Learning Circles format also required learners' active engagement, which imposed challenges to shy individuals. Miriam from the NCLEX circle explained that her biggest issue was to be "out and open" in her group:

> I'm more of an introvert. I will stay in my room, and study and I don't go outside, so it forces me [the Learning Circles] – it really, really forces me to actually sit down and be in a group. I'm more of a homebody. I'm more of a homebody person (Miriam, NCLEX/Registered Nurses Prep Test circle)

When I asked facilitators what would be their advice for learners to succeed in the Learning Circles, many of them stressed the necessity of taking risks. Casey, for instance, valued the fact that "people were participating and getting out of their comfort zone and trying to make it work" (Learning Circles facilitator).

Summary

Four actions characterized students' and facilitators' participation in the Learning Circles. They shared learning resources that contributed to their progress. Therefore, suggestions, feedback, help with content, and strategies played a fundamental role in their

groups. Their interactions went beyond content and course materials as they supported and

cared for each other. Empathy contributed to this learning environment. Even though

students received support, they also had to rely on self-motivation to keep studying and to

leave their comfort zone.

Chapter 8 - Appropriations of OER and digital technologies

My fourth research question asked how did students and facilitators appropriate open educational resources and digital technologies to fit their learning needs and objectives? The categories in this chapter describe active adaptation of materials and technologies, not only their passive use. Many students *used MOOC materials selectively*. In other words, they focused only on the lessons that helped them achieve their goals. They also *relied on additional learning resources* to complement MOOC lessons, such as websites, YouTube tutorials, and books. Facilitators *adapted the activities* that P2PU suggested for the Learning Circles. Finally, students with little access to digital networks had to *rely on free Wi-Fi/computers and study offline*.

Used Materials Selectively

Some participants in the Learning Circles wanted to go over all the content that MOOCs offered. They believed that this strategy would benefit their learning progress. Other participants adopted a more active approach and used materials selectively. For this reason, they only studied the lessons that helped them achieve their goals. Learners adopted this strategy when the online course offered plenty of materials, when the content did not relate to their context, or when they had prior knowledge on the topic.

According to learners from the NCLEX circle, Khan Academy offered many videos and quizzes on a broad range of topics. "There's a lot [of content] which can be a little overwhelming" (Teresa, NCLEX/Registered nurses prep test circle). During the study sessions, nursing students selected lessons and took quizzes together. Initially, they tried to cover the same subject outside the group but ended up following a more flexible schedule.

"We're using an online source to study, like it's the same online source, but we may not be looking at the same things because we kind of decided that we'd look at the videos at our weaknesses and so, you know, different people have different weaknesses" (Victoria, NCLEX/Registered nurses prep test circle).

The Resume Writing and Interview Skills MOOC targeted college graduates, which did not suit the adults trying to reposition themselves in the job market. For this reason, a great part of them believed that the course suggestions and advice were not always useful. Learners had to use materials selectively and, a facilitator explained that this situation generated some frustration in her group:

> The reading hadn't been as helpful as we hoped them to be, which is disappointing, so we needed to get more creative. So, we really had to pick and choose the readings that were helpful and the ones that weren't. So, that's hard. You don't want to have to do that when you sign-up for a class. I get that (Casey, Learning Circles facilitator).

Some learners joined Learning Circles simply to update or complement a prior knowledge that they had. I observed cases like that in the Public Speaking and HTML & CSS circles. Bianca, for instance, graduated in communication and enrolled in the Public Speaking circle only to refresh some ideas and concepts. Similar circumstances applied to other students, such as Magdalena and Amanda who had prior knowledge of HTML. "I wanted the information because I already knew the subject matter. I was just trying to pick up some extra stuff to make me better and make me quicker" (Amanda, Start Writing Fiction, Beginner's Guide to Academic Writing, and Intro to HTML and CSS circle). In summary,

some students adopted an active approach and covered the MOOC content that helped them achieve their goals.

Relied on Additional Learning Resources

In addition to selecting MOOC lessons, learners also used additional resources. Questions, doubts, and an impulse for sharing (as described in chapter 7) catalyzed the use of extra learning materials. In all circles, participants encountered situations that required looking for information outside the online course. Sometimes, simply googling the question solved the problem. Other times, doing a more detailed research was necessary. For instance, during a Public Speaking meeting, learners and facilitators took a quiz together using a laptop and a projector. One of the questions asked the definition of "Kairos," but none of them knew it. They used Google to find the definition and choose the right answer. All participants had access to the internet in their Learning Circles, but curiously, they did not rely too much on search mechanisms during the meetings. However, when I interviewed them, several confirmed using search mechanisms regularly. When I asked if they had previous experience with online learning, some highlighted their search for information on the internet using Google and YouTube tutorials:

> One of my hobbies is painting furniture. So, I'll buy crappy furniture and then I do chalk paint on it. I wanted to get more advanced and just kind of learn more about it, so I went on YouTube. I watched a couple of videos, and I realized what I was doing wrong (Magdalena, Public Speaking and Intro to HTML & CSS circles).

Participants also had to use other online resources in addition to Google and YouTube. For instance, NCLEX students relied on materials from other test preparation publishers. "I use the NCLEX mastery question bank which just helps you answer the questions and the critical thinking behind the questions because this is where a lot of people get tricked up – it's different from previous undergrad questions. And then picmonic.com and ATI tutor [online service]" (Victoria, NCLEX/Registered nurses prep test circle). Many students in the HTML & CSS circles used W3schools.com tutorials to complement Udacity's course. Some participants across several groups also used hard copies of books even though this was not a rule:

> She [participant] does ask me [facilitator] often about basic computer questions like logging in properly, and even like closing down windows and stuff like that, but she took my bibliography that I put together, found herself a book, checked it out, started reading it, and just like: "I'm getting it, I'm understanding a little bit more because of this" (Phoenix, Learning Circles facilitator).

All facilitators created a list of additional books and websites that could benefit students. In almost all circles that I attended, they also brought books related to the course topic. P2PU also created a handout (Figure 8.1) for students explaining how to access additional resources, such as other MOOCs and library books. For instance, the handout explained that "all of CPL's [Chicago Public Library's] resources are available across the system - if you want a book that is only available at Harold Washington, it can be delivered to your local branch. Your reference librarians is a great resource to help you find additional

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resources on the subject of your choosing" (P2PU's Learning Circle handout – Pilot Round).

As described in the previous chapter, participants also regularly shared learning resources

with each other, which prompted them to look beyond MOOC content.

Continuing Resources

Just because the Learning Circle will finish in a few weeks doesn't mean that the meetings have to end. Learners can meet in the library at anytime to work through course material or start a new course. Here are some tips for accessing all the resources needed to continue learning - either alone or in a group.

How do I check out laptops?
- Individuals can reserve CPL laptops up to two days ahead of time either at the circulation desk or by visiting this website: http://app3.chipublib.org/pcres/reserve.pl
- You just need a library card and a photo ID
- Most branches allow laptops to be reserved for 2 hours at a time
- Pick up the laptop at the circulation desk

How do I book a study room?
- You can book a study room up to four weeks ahead of time either at the circulation desk or by visiting this website: chipl.libcal.com
- You just need a library card and a photo ID
- You can book for 2 hours/day or up to 6 hours/week
- Most study rooms accommodate between 2-6 people

How do I find a new online course to take?
- There are a number of online providers that offer free, online courses to the public
- www.class-central.com is a good aggregator of online courses
- You can select 'Subjects' from the top tab and search classes by subject
- Or, select 'Courses' and select courses that are Self Paced, Recently Started, or In Progress to see what is available now.

What other resources are available to me?
- **Brainfuse:** Brainfuse is a portal where learners can find resources, get live help from tutors, work together in virtual study rooms and work through test prep. To access Brainfuse, go to the CPL website www.chicagopubliclibrary.org , click on "Browse"; Select "Online Resources"; Choose "Brainfuse". Then login with your library card details and explore what is available.
- **Librarians:** All of CPL's resources are available across the system - if you want a book that is only available at Harold Washington, it can be delivered to your local branch. Your reference librarians is a great resource to help you find additional resources on the subject of your choosing.
- **Peers:** Make sure to share contact information (if you haven't already) so that you can email or text your Learning Circle peers about subsequent learning opportunities.

Figure 8.1. Peer 2 Peer University handout (pilot round). This image reveals how P2PU advised learners to look for additional learning resources.

Adapted activities to local contexts

Peer 2 Peer University gave all facilitators weekly recipe cards to help them interact with their groups. Three main sections comprised these cards: 1. A discussion of learner's goals for the meeting; an in-class activity dedicated to helping students bond and progress in their learning; and a final reflection of the positive and negative points of their groups for the day. Many facilitators believed that the activities did not relate with the actual interactions taking place in their Learning Circles. For this reason, they had to adapt activities.

For instance, the facilitator for NCLEX circle always started the meetings asking a food-related question, such as "What is your favorite fall drink?" or "What is your favorite restaurant in Chicago?" I saw other facilitators coming up with their own group bonding activities as well. In one of the Public Speaking Circles, the librarian asked learners to state the name of three historical figures that they would invite to dinner and explain their choices. Other times, facilitators simply adapted the content that Peer 2 Peer University provided. For instance, in week three they had an activity called "Growth Mindsets" that related to how people's belief in their ability to learn something new impacts their ability to reach a goal. The recipe card asked facilitators to:

> **First:** Take a couple of minutes as a group to first discuss the following
>
> prompt: "Is intelligence malleable or fixed?" Some prompts to help discussion
>
> along (if need) include:
>
> - What does intelligence mean to you?
>
> - Who defines intelligence?

Next: Watch the growth mindset video with Salman Khan from Khan

Academy and professor Carol Dweck from Stanford University (3 min):

https://www.youtube.com/watch?v=wh0OS4MrN3E

Finally: Have a group discussion sharing times when you overcame a difficult

moment by learning how to solve a problem. As the facilitator, you can

initiate discussion by telling a personal example, highlighting the role that

hard work, new strategies, and help from others played in eventual success.

(P2PU recipe card, Learning Circles round 2).

In another Public Speaking circle, the facilitator started the session briefly stating the

idea that everybody can learn from his or her failures. Next, the group simply focused on the

Coursera lectures. Sometimes facilitators used the activity as P2PU proposed and fostered

conversations in their circles. However, in some situations the groups became disengaged.

For instance, the Resume and Writing facilitator tried to talk about intelligence with

participants, but he received no replies to his questions.

When I interviewed facilitators, many of them wished P2PU had given them more

options in the recipe cards. Others wanted to understand the goals of these activities better.

Finally, some facilitators believed that P2PU should tailor their suggestions to specific cultural

groups and course topics. As one of the facilitators highlighted:

Perhaps giving alternate activities, you know? Maybe... like, a choice of three

or something, so once you get to know your group dynamics, there may be a

shorter activity that would work the one… And understanding that not

everybody's audience is going to be the same, so you can't – especially in a city

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as diverse as Chicago -- You know? We got what? Four million people or something here and they all come from very different backgrounds (Phoenix, Learning Circles facilitator).

As explained in chapter 5, the MOOC materials did not always relate to the local reality of students. However, I did not observe *students* changing lessons or creating new ones; the core of these adaptations took place with facilitators appropriating P2PU's materials.

Negotiated Limited Technological Resources

In my literature review, I highlighted that the Learning Circle model aimed to address digital divide issues. In my methods chapter, I also pointed out that more than half of my interviewees did not have prior experience with online learning nor internet connection at their houses. Many of them had to deal with limited technological resources to study MOOC lessons outside their groups. For this reason, they had to save materials on a flash drive to read them offline or rely on free Wi-Fi and public computers. Amanda, for instance, used what she called OPM or "other people's money" to access the internet:

My challenge is finding time to get a public computer to go through the stuff, and then, of course, I have to come to the class [Learning Circle]. As a matter of fact, before I came to this class, I went to a computer lab that's down here in downtown, and they said, "Oh, no. You know we're only open on Monday, Tuesday, and Wednesday. So today is Thursday." So I was going to – my intention was to spend some time online going through some more courses, but I couldn't (Amanda, Intro to HTML and CSS circle).

Jacob also relied on public computers to study for the HMTL and CSS course. Miriam had a desktop, so she used mainly library computers when studying outside her house. Julia had a laptop at her house, but preferred using library computers to study for MOOCs because she did not have internet connection at her place of residence: "Yeah, I use a laptop not necessarily at the library. I am not connected [at home]. I am a caregiver with my mother. We don't have all of those technologies" (Julia, Academic Writing Circle). Learners who were able to carry their laptops around the city had more flexibility to use Wi-Fi at libraries, coffee shop, restaurants, or wherever they could find free internet connection. Morgana, for instance, studied late at night at the common hall of her apartment complex. Michael chose different places according to his weekly schedule: "It varies. Sometimes I'm at the library. Like this library. When I study on Sundays I go to Starbucks, but like on Thursdays I'm at the library, so I'll get there early and sometimes I'll stay there late" (Public Speaking and Intro to HTML & CSS circles). Jeremy used free wi-fi at the library and at fast-food restaurants.

By talking to participants, I realized that their physical mobility through the city helped them deal with issues of internet access. It is interesting to notice that on the facilitator handbook that P2PU created after the pilot round, they suggest that Learning Circles should be easily accessible through public transportation:

> **Find a quiet space**
>
> Try and find a space that you can use consistently for 90-120 minutes each week.
>
> ESSENTIALS
>
> - Easily accessible space

- Consistent access to power and free internet

- Accommodation for any physical and/or learning disabilities in the group

- Restroom availability

DESIRABLES

- A large wall that you can project onto

- Natural light (studies show that people learn better with it)

- Modular seating arrangements

- Near public transport / free parking (Peer to Peer University Facilitator Handbook, 2015, p. 11).

Easy access to these groups was an advantage for students even when they studied at home and did not have internet access. In these cases, they used the library connection to download materials to a flash drive and reviewed them later:

> In the morning, I do [study] what I copied and pasted from the library. I do that in the morning. Then I spent hours at the library here, three/four hours. Four days a week. I'm studying HTML, CSS from Udacity, from YouTube and from Google and piecing it all together.
>
> Me: Okay. So, you're not accessing the online materials from your house, right?
>
> Jonathan: No. I lost the internet connection. (Jonathan, Intro to HTML & CSS circle)

Almost all students did have internet connection on their smartphones; however, few of them accessed course materials using these devices. The only participants who used their

mobile phones to study were more experienced users who owned other types of digital tools as well, such as tablets, laptops, printers, etc.

Summary

Overall, learners' appropriation of open educational resources resembled a curation process. They discarded lessons that were not relevant to their goals and selected materials in addition to the MOOC content. Facilitators went beyond simply selecting materials and created new activities or adapted P2PU's suggestions. Learners with no internet connection at home also had to be creative when studying outside their groups. Thus, they relied on free Wi-Fi, public computers, and offline study sessions.

Chapter 9 – Discussion

In this discussion chapter, I argue that the Learning Circles model aligns with the realities of networked societies that require students to navigate distributed contexts and relationships. First, they eased digital divide challenges. Second, they offered an environment sustained by *affective labor* (Hardt, 1999) that favored learning. Third, they prompted students to engage in processes that stimulated their intellectual autonomy. Fourth, they favored the exchange of foreign competencies among novices. Consequently, the Learning Circles have the potential for opening new pathways for adult learning in the 21st century.

Eased Digital Divide Challenges

The Learning Circles helped to ease digital divide challenges because they combined learning-oriented communities with the existing infrastructure of Chicago city and its Public Library system. Thus, their model resulted in practical implications related to three dimensions described in the digital divide literature: skills (Ehlers, 2011; Lane, 2009; Liebenberg et al, 2012; Sánchez-Elvira Paniagua et al., 2013), participation (Jenkins et al., 2006; Lane, 2009; Rohs & Ganz, 2015), and access (Daniel & Mackintosh, 2008; Liebenberg et al, 2012; Rohs & Ganz, 2015; Willems & Bossu, 2012). The first dimension relates to individuals' ability to manage and deal with digital technologies. "Due to the digital divide, thousands of people still lack the most basic digital competencies to take advantage of [OER]" (Sánchez-Elvira Paniagua et al., 2013, p. 869). The second dimension refers to how individuals take advantage of free internet. "The differences in cultural capital, being habitus and skills, which are developed by socialization and education, are often held to be responsible for different use practices of digital media" (Rohs & Ganz, 2015, p. 5). The third

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dimension relates to having access to digital devices and network infrastructures. As Daniel & Mackintosh (2008) explain, "all forms of eLearning bump up against the obstacle of the digital divide. Even if the electronic is only a small part of the course, the student who cannot access equipment is disadvantaged" (p. 4). Access is the most basic form of digital divide.

When looking at my analysis, I can see that the Learning Circles addressed to some extent issues related to digital skills, participation, and access. As I described in chapter 7, participants shared learning resources with each other. This form of engagement enabled individuals with low digital skills to learn from more experienced peers/facilitators. For instance, Lilian received help from the facilitator and a peer to navigate Saylor's platform in the Resume Writing and Interview Skills circle. She also had extra support from librarians outside her study group. Learners like Lilian received aid to deal with the *functional aspects of computer literacy* (Selber, 2004). According to Selber (2004), the computer age requires multiliteracies. Thus, a literate individual can navigate the functional, critical, and rhetorical dimensions of digital technologies. Functional literacy entails managing technology as tools and it provides immediate benefits for learners, such as accomplish educational goals. Critical literacy helps students to see technologies as cultural artifacts and understand the politics governing their design, uses, and regimentation. Rhetorical literacy connects the two first aspects because it "insists upon praxis - the thoughtful integration of functional and critical abilities in the design and evaluation of computers interface" (Selber, 2004, p. 145). Thus, participants with low computer skills received very basic instruction for managing tools in their Learning Circles.

Participation was the second dimension of the digital divide that I observed. As I described in chapter 5, students had multiple expertise points in their groups: peers, facilitators, MOOCs, P2PU, and additional resources. For this reason, some of them reported feeling more encouraged to take online courses by themselves in the future. Also, Chapter 8 discussed how participants often used MOOC lessons selectively and used additional learning resources. This situation unfolded because they needed to solve problems, but also because they shared resources with each other. This type of content appropriation broadened students' awareness of OER available on the internet. It also prompted them to become content curators instead of mere users. The literature on digital divide stresses that access alone does not ensure that people will use the internet in productive ways (Rohs & Ganz, 2015). Therefore, it is possible to say that the technical and relational structures in place at the Learning Circles supported participants' ability to use digital tools for learning purposes.

Access was the final dimension of the digital divide that I observed in my analysis. It is interesting to notice how mobility in urban spaces affected participants' decisions on how to access the MOOC outside their groups. Chicago has a network of more than 80 library branches located in almost every neighborhood (Chicago Public Library website, 2017) and a robust public transportation system. This infrastructure allowed people with no internet connection at their houses to move across the city and use public computers/free Wi-Fi. As I described in chapter 8, these participants relied on libraries, community centers, coffee shops, and fast-food restaurants to study MOOC materials. Many of them had internet connection on their mobile phones, but they rarely used these devices to study. These results contradict the literature that emphasizes the role of mobile devices in closing digital gaps (Ally &

Samaka, 2013; Laouris & Eteokleous, 2005; Wareham et al. 2004). On the contrary, they

corroborate Donner's and Walton's (2013) findings in the article titled "Your

phone has internet: Why are you at a library PC?" In this study, they found that teenagers in

Cape Town also relied on public libraries to access information even though they had mobile

phones with an internet connection. Using library computers provides a different internet

experience than using phones. Here it is important to stress that even though physical

mobility gave more options to students, individuals with no access to internet connection at

home faced greater hassles than others.

  As I stated in my literature review, digital divide issues impose challenges to the open

educational resources movement (Ally & Samaka, 2013; Daniel & Mackintosh, 2008; Daniel

& West, 2006; Ehlers, 2011; Kanwar, 2007; Lane, 2009; Liebenberg et al, 2012; Rohs &

Ganz, 2015; Sánchez-Elvira Paniagua et al., 2013; Willems & Bossu, 2012). Learning

Circles helped to ease the digital divide through a model that resembles Sassi's (2005)

description of the *social structure framework* to inequality. This approach takes into

consideration first how technologies are embedded in society before proposing changes. As I

described in chapter 5, P2PU and the Chicago Public Library offered access to technology,

but also a supporting structure comprised of peers, facilitators, MOOC lessons, and

pedagogical activities. "Learning Circles position[ed] MOOCs in a social space" (Peer 2 Peer

University Facilitator Handbook, 2015, p. 5). Thus, their model contemplated issues beyond

simple access to digital tools. My findings suggest that participants benefited from the

infrastructure and the relational support that their Learning Circles offered. That said, only a

longitudinal study could reveal the long-term effects of these groups in reducing inequality.

As I discussed in my literature review and my conceptual framework, this dissertation relies on a body of literature that refutes the dichotomy between micro and macro societal spheres (Foucault, 1972, 1982; Latour; 2005). For this reason, this work assumes that grassroots initiatives, such as the Learning Circles, could possibly have structural impacts.

Offered a Supportive Learning Environment

Care and support created an environment conducive to learning. Thus, *affective labor* (Hardt, 1999) established the foundations for Learning Circles. The literature on the topic defines affective labor as a type of work that produces or alters people's emotional experiences (Hardt, 1999; Sloniowski, 2016). "This labor is immaterial, even if it is corporeal and affective, in the sense that its products are intangible: a feeling of ease, well being, satisfaction, excitement, passion - even a sense of connectedness or community" (Hardt, 1999, p. 96). As I explained in Chapter 7, students and facilitators helped to reframe challenging situations, and they took an interest in other's well being. When I asked facilitators about their main responsibilities, a great number of them highlighted the need for making people feel welcome in their groups. I witnessed expressions of support and care across all the circles I observed in my fieldwork.

The literature on affective labor reveals that this type of work can create healthy community bonds (Hardt, 1999) and support learning and knowledge creation (Julien & Genuis, 2009; Mills & Lodge, 2006; Sloniowski, 2016). I argue that affective labor established the conditions for strengthening accountability and allowing people to express their opinions in these learning communities. As I explained in my conceptual framework, the concept of *community* can be misleading given its positive connotation. However,

Wenger (1991) warns his readers that communities can also be the *locus* for unfairness and oppression. For this reason, my results suggest that affective labor played a fundamental role in establishing respectful bonds between participants.

As I described in chapter 5, Learning Circles created an accountability network for students. This relational aspect helped to keep them motivated. In chapter 6, I also described how they preferred the low-pressure in their groups in comparison to other learning environments. Low-peer judgment encouraged them to express opinions. Here, I argue that affective labor contributed to students' commitment and to creating feelings of ease. There was little conflict in the Learning Circles, but a student felt judged by her peers, and another one thought the facilitator was not personally committed to their success. These two participants ended up quitting their circles. In the interviews, students did not establish a direct connection between the care they received and their engagement with the groups. However, I believe they would not engage with peers if they did not feel welcome. I suspect that they did not explicitly see this connection because people tend to take affective labor for granted. The invisibility of this type of work comes from the fact that western societies tend to value more other activities, such as the so-called intellectual work (Herd & Meyer, 2002; Lanoix, 2013; Schultz, 2006). This is a trend that is repeatedly highlighted in the scholarship on the topic.

The literature on affective labor also points out that a gender bias orients this type of work. Thus, the task of caring for others usually falls on women rather than men (Barker, 2012; Grummell et al., 2009; McDowell, 2009). My data analysis did not support this scenario. I observed five Learning Circles (two facilitated by women, two facilitated by men,

and one facilitated by a man and a woman) and I captured instances of care and support regardless of students' and facilitators' sexes. This impulse of helping others relates to librarians' ethos. As I mentioned in my methods chapter, a librarian told me that assisting others is part of their professional identity. Sloniowski (2016) explains that being a librarian was a female's function "in the late nineteenth century, where women librarians were hired to create welcoming spaces" (p. 646). Even though just a historical analysis could reveal how this profession evolved over the centuries, my results indicate that Chicago Public Library staff also understood the need of making patrons feel welcome as imperative.

In practice, affective labor can be harmful as well. The literature connects this type of work with burnout (Caputo, 1991; Gregg, 2010; Matteson & Miller, 2013; Sheesley, 2001). Burnout is the ultimate stage of stress:

> A useful construct positions stress, distress, and burnout on a continuum. At one end is a feeling of well being, and next to it a perceived sense of imbalance that is righted through the use of effective coping strategies. Further on is a stage in which the use of inappropriate coping strategies results in a loss of physical and mental resources; things are out of control. Last is burnout in which one feels "done in" by the stressful situation (Sheesley, 2001, p. 448).

Scholars cite many factors that can lead to burnout. A prevalent one is the fact that care professionals tend to deal with people's negative emotions and often need to disguise their own feelings (Gregg, 2010; Sheesley, 2001; Sloniowski, 2016). This aspect resembles Phoenix's testimony about the challenges of facilitating:

Phoenix: It never ceases to amaze me how much it takes out of you to deal

with a group of people and to always, you know, to be constantly helping

them, constantly being cheerful and, you know, positive outlook, having a

smile on your face, rolling with it, you know, for one hour and a half. I just

get exhausted. I'm like, I'm not – my brain is only, like, functioning at half

right now (Learning Circles facilitator).

Facilitators did not tell me they were burned out, but they reported being tired and

having to deal with more tasks than they initially imagined. Phoenix was the only one

making explicit references to how affective labor (Hardt, 1999) affected other job-related

tasks. In chapter 8, I discussed how facilitators had to adapt P2PU's materials for their

groups, which added one more layer of work to their functions.

Learners also supported others. As I explained in Chapter 5, students and facilitators

constantly negotiated roles during the six weeks in their groups. These tasks involved content

related issues, logistics, and motivation. However, as I pointed out before, the size of these

circles fluctuated, so facilitators had to take the lead in many cases. In summary, affective

labor (Hardt, 1999) strengthened accountability and group bonding in the Learning Circles.

For this reason, it provided the foundations for learning to take place in these groups.

This discussion contributes to the literature on affective labor and learning (Julien &

Genuis, 2009; Mills & Lodge, 2006; Sloniowski, 2016). It also helps to explain the low

levels of retention on massive learning settings. A study conducted by Katy Jordan (2013) on

several MOOC platforms, including the ones used in this study, reveals that only 2 to 10

percent of participants enrolled in classes finish them. As I explained, affective bonds

strengthened accountability. This is a type of situation that MOOC developers can hardly replicate with the current structure of their platforms.

Stimulated Intellectual Autonomy

Self-motivation and attention framing stimulated students' intellectual autonomy in the Learning Circles. These two elements resemble Jacques Ranciére's (1991) emancipatory framework. According to him, emancipated individuals take into consideration their ability to learn new concepts without the help of an expert. Thus, it mirrors the situation that my participants encountered in their study groups. In the book chapter "An Intellectual Adventure," Rancière (1991) argues that individuals can reach intellectual emancipation and learn everything they want through the use of *will* and *attention* (intelligence at work). The author tells the story of Joseph Jacot who taught French to Flemish students without knowing Flemish himself to illustrate that *explication* creates shortcuts for students and prevents them from thinking. Also, explication creates the false notion that people need guidance to learn and positions masters in a superior position in relation to apprentices. This situation creates and maintains social inequalities because apprentices can never free themselves from being in a subservient position. Contrary to this model, Rancière (1991) proposes an emancipatory framework that requires only attention/will and assumes that everyone has the same intellectual capacity. Rancière's critiques to *explication* have similarities to Paulo Freire's (2000) opposition to the banking model of education, in which professors assume that students are passive, empty vessels who need to be filled with the expert's knowledge.

When I compare Rancière's ideas with my analysis, it is possible to attest that students in the Learning Circles demonstrated self-motivation. This disposition featured as

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their most predominant characteristic and prompted them to move outside their comfort zones. As I pointed out in Chapter 6, the majority of them described situations that required *will* to keep studying. Both learners and facilitators pointed out personal initiative as a key element for success in the Learning Circles. In addition to self-motivation, my analysis revealed several instances in which participants' interactions involved *redirecting people's attention* rather than explication (Rancière, 1991). Instances of reframing attention unfolded when peers/facilitators acted like *cheerleaders* and re-signified a situation (chapter 5); when participants shared resources with each other (chapters 6 and 7); and when they disclosed meta-learning strategies (chapter 5 and 6). In the first case, these actions entailed asking students to *change the focus of their perspective* to learn from their mistakes and progress in the face of challenges. Similarly, the act of sharing additional learning materials cultivated a pro-active disposition of focusing their attention beyond MOOC materials. Finally, meta-learning strategies helped students to learn how to approach certain problems. In this case, they were not receiving the right answer from an instructor, but learning what elements they should pay attention to, to solve certain problems. As one of the participants described: "I do better when I learn from other people's examples. How they are addressing something. Whether it's how they are approaching their assignment or their project, even the way they are critiquing me or others, or asking questions" (Bianca, Public Speaking circle). In groups with constant peer interactions, I saw participants starting to use each other's learning strategies during the course of the six weeks. Thus, I argue that *knowing where to focus their attention* when solving a problem is an important skill that participants can nurture in the Learning Circles and allows them to approach new information without the mediation of

other people. This skill aligned with their self-motivation can be empowering to the extent that increases their agency to learn new knowledge by themselves.

It is important to highlight that the Learning Circles model did not automatically provide students with strategies for learning new content. Some groups spent a great part of their time just going over MOOC materials and had little peer interaction. Learners across all circles wished they had more face-to-face interchanges in their groups. As I explained in Chapter 5, groups were not always on the same page as learners covered materials at different paces. Also, the low-stakes of these groups sometimes prevented groups from establishing clear goals.

Despite these challenges, Learning Circles offered structures that strengthened participants' *will* and *attention*. The presence of a group created an accountability network. Also, the library offered a dedicated time and space for them to focus on the online courses. Having these structures helped participants to progress. This aspect diverges from MOOCs' discourses that promote the idea that flexibility offers an inherent advantage for learners. For instance, Khan Academy affirms that "practice exercises, instructional videos, and a personalized learning dashboard that empower learners to study at their own pace in and outside of the classroom" (Khan Academy website, 2017). However, flexibility did not feature as a central advantage for my participants. Thus, P2PU's model contemplated social aspects of learning that MOOC platforms ignored. By doing so, they increased the odds for empowering students (as defined in this discussion), but they did not ensure them.

When talking about empowerment, it is also necessary to highlight the limitations of Rancière's (1991) ideas. His definition emphasizes the cognitive aspects of learning and, for

this reason, it offers an incomplete and disembodied perspective on intellectual emancipation. Participants in my study were not disembodied minds gifted with will and attention; they were body-mind entities immersed in a set of technical, social, and cultural relations. Thus, they faced *time constraints* that imposed limitations to what will and attention could accomplish alone. Many of them pointed out that learning a topic by themselves took more time than relying on an expert. It is not a coincidence that a great part of them wished they had an expert in their groups. Participants juggled spouses, kids, school, work, among other obligations simultaneously with the Learning Circles. For this reason, in practice, *explicit teaching* allowed them to progress. MOOC lessons, additional resources, learners' and facilitators' explanations played a crucial role in these groups.

Critical pedagogues and scholars tend to understand *explicit teaching* and *independent thinking* as a dichotomy (Ellsworth, 1989; Fassett & Warren, 2006; Freire, 2000; Rancière, 1991). For instance, this opposition is evident in Freire's (2000) characterization of the banking model of education: "Knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing. Projecting an absolute ignorance onto others, a characteristic of the ideology of oppression, negates education and knowledge as processes of inquiry" (p. 72). However, this alleged dichotomy contrasts with what I observed in my analysis. Many students approached the learning materials critically and reflectively. As explained in chapter 5, they often challenged and analyzed MOOC lessons when they did clash with their local realities. For this reason, my results suggest that explicit teaching and critical awareness can co-exist. My results corroborate Ellsworth's (1989) observation that guiding learners is inevitable in education.

As a consequence, I cannot attest that *explication* (Rancière, 1991) harmed participants'

potential to reach intellectual autonomy. On the contrary, as stated in the previous paragraph,

explicit teaching helped them to overcome time constraints.

Favored the Exchange of Competencies Among Novices

Learning Circles differed from traditional communities of practice. CoP have a

centralized model of expertise and learning happens as a novice progresses from

apprenticeship to mastership. In this process, they deal with new skills, but also change the

dynamics of their groups (Wenger, 1998). Communities of practice promote deep

engagement with a set of knowledges. Unlike them, Learning Circles presented a distributed

model of expertise: the MOOC materials offered lessons; peers and facilitators helped with

content and technical issues, shared meta-learning strategies, and gave feedback; Peer 2 Peer

University provided pedagogical support. As I explained in chapter 5, this structure created a

constant negotiation of roles, in which participants took turns in being responsible for

teaching, organizing their groups, and motivating each other. For this reason, there was not a

linear movement from apprenticeship to mastership. My analysis reveals that this constant

negotiation of roles enabled people to benefit from each other's backgrounds and the MOOC

lessons. For instance, I observed students adopting new meta-strategies as they interacted

with peers. Unlike traditional communities of practice, Learning Circles do not provide deep

engagement with a set knowledge.

The fact that Learning Circles did not afford the same experience of traditional

communities of practice does not mean that they did not offer virtues. The actions I observed

in these groups resemble the best practices for peer learning as Corneli and Danoff (2011) describe them:

>We have five principles, with which we endeavor to both describe the phenomenon of effective peer learning, and to prescribe key aspects of its best practice.
>
>1. Changing context as a decentered center.
>
>2. Meta-learning as a font of knowledge.
>
>3. Peers provide feedback that wouldn't be there otherwise.
>
>4. Learning is distributed and nonlinear.
>
>5. Realize the dream if you can, then wake up! (Corneli & Danoff, 2011, p. 3).

Students in the Learning Circles struggled with the fifth point – having a clear goal. As I explained in Chapter 6, these groups had low-stakes evaluation, which sometimes hindered their ability to move forward. Nevertheless, all of them presented a decentralized structured, shared meta-learning strategies (some groups more than others) and provided feedback to each other. Learners had different backgrounds and brought distinct prior knowledge to their groups. Similar to what happened in the Learning Circles, Wenger (1998) describes how communities do not exist in isolation, but connect to each other. These *boundary contacts* (Wenger, 1998) allow groups to exchange foreign competencies. In the Learning Circles, these interactions took place within each study group and not only across them. For this reason, Learning Circles brought together a collection of *brokers* (Wenger, 1998) and *boundary objects* (Star & Griesemer, 1989). Adapting Wenger's (1998) terminology, it is possible to say that they are *communities of boundary contacts* (Wenger,

1998). For this reason, intellectual diversity played an important role in these groups. As I described in chapter 6, learners understood diversity as a means for their progress. Thus, Learning Circles did not provide deep immersion in a topic but gave students access to contents, learning strategies, and resources that they would not necessarily have in other settings. These study groups gave them an initial contact with a new topic, new approaches for tracing information on the internet, and a network of learners interested in the same types of ideas. Thus, I argue that Learning Circles increased participants' ability to join other communities of practice. I will further discuss this point in the next section when I describe how the project can create new pathways for adult learners.

My observations also confirm the critiques of some scholars to the traditional communities of practice model. As I discussed in my conceptual framework, some scholars believe that Lave and Wenger's framework does not explain interaction taking place in technologically-mediated settings. For instance, Engeström (2007) says that communities of practice do not reflect dynamics of online peer-based production. It is interesting to point out that, the Learning Circles model also differed from other formations described in the literature, such as networks of practice (Brown & Duguid, 2001), collectivity-of-practice (Lindkvist, 2005), and expansive learning (Engeström & Sannino, 2010). Brown and Duguid (2001) describe members of a given practice, who already have expertise, but join communities that have looser ties. Lindkvist (2005) talks about collectivity-of-practice, a group of skilled individuals with different expertise who come together to solve a problem. Engeström and Sannino (2010) talk about how groups make changes to their practice over time by moving across areas of expertise to solve problems. In summary, Learning Circles

favored the exchange of foreign competencies among novices. This is a type of dynamic that the literature on social learning theory does not describe. Thus, this discussion contributes to education and communication scholarship on peer-based environments.

Opened New Pathways for Adult Learning

As I discussed in the four previous sections, Learning Circles facilitated learning by easing digital divide challenges, offering a supportive learning environment, stimulating intellectual autonomy, and favoring the exchange of competencies among novices. For this reason, they accomplished more than just adding an embodied dimension to MOOCs. They subverted some of the underlying logics of these massive initiatives by grounding courses in a social situation that provided local structure and support for participations. Learning Circles required learners to navigate distributed contexts and relationships and, as a consequence, opened new pathways for adult learning. In the next paragraphs, I will discuss how Learning Circles differ from MOOCs and delineate some possibilities that their model affords for education in the 21st century.

Learning Circles are a remix of resources. As I described in chapter 5, P2PU and CPL combined the library's infrastructure, online lessons, volunteer work, and pedagogical support to create a unique learning environment. Even though these groups did not offer deep immersion in a topic, they encouraged students to pursue other online learning opportunities. If the Learning Circles are a remix, MOOCs are a mere remediation. The pedagogical model of these massive platforms remediates big lecture halls because the two of them offer a top-

down teaching model of an expert pouring knowledge over novices[5]. Their platforms allow

for peer interactions but can be overwhelming given their massive scale (Knox, 2014). On

the one hand, MOOCs try to replicate and scale-up traditional academic settings. They follow

a trend of automatization the teaching functions of education (Noble, 1998). On the other

hand, as described in Chapter 5, Learning Circles offer a model of distributed expertise that

differed from traditional academic settings. As a consequence, MOOCs work with a logic of

automatization, while LC work with a logic of appropriation.

Replacement and appropriation raise questions about their effects on universities and

colleges. There is an ongoing academic debate about how OER initiatives will transform

Higher Education (Carey, 2013; Knox, 2013; van Mourik Broekman et al.,2014; Yuan &

Powell, 2013). P2PU mentions this discussion in the first paragraph of their facilitator

handbook:

> For decades, online learning has offered the potential to deliver cheap, flexible
>
> education to a large audience. As the field of online learning has increased
>
> rapidly in the past few years, many advocates have claimed that online
>
> learning will democratize higher education and even make universities
>
> obsolete (Peer 2 Peer University Facilitator Handbook, 2015, p. 4).

It is beyond the scope of this dissertation to discuss how the OER movement in its

totality can impact Higher Education. This work offers insights only on the Learning Circles,

and my data analysis suggests that they will not replace universities. As I explained in the

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[5] Not all MOOCs are built on this premise. Here, I am talking specifically about the courses used in the pilot round of Learning Circles.

previous lesson, Learning Circles do not offer the same in-depth learning experience of a traditional classroom. For this reason, Learning Circles and universities serve distinct social functions. On the one hand, universities traditionally have experts who ensure quality, teach research and critical analysis skills. On the other hand, Learning Circles emphasize caring and support to create a relaxed environment that allows individuals to approach lessons without the pressure of receiving a certain grade. The circles with vibrant peer interactions gave students meta-learning strategies for a networked age and enhanced their problem-solving skills. Thus, these study groups allowed participants to nurture a set of competencies that scholars recognize as important for the 21st century:

> These [new] skills build on the foundation of traditional literacy, research skills, technical skills, and critical analysis skills taught in the classroom. The new skills include:
>
> **Play** — the capacity to experiment with one's surroundings as a form of problem solving
>
> **Multitasking** — the ability to scan one's environment and shift focus as needed to salient details.
>
> **Distributed Cognition** — the ability to interact meaningfully with tools that expand mental capacities
>
> **Collective Intelligence** — the ability to pool knowledge and compare notes with others toward a common goal
>
> **Judgment** — the ability to evaluate the reliability and credibility of different information sources

Networking — the ability to search for, synthesize, and disseminate

information (Jenkins et al., 2006, p. 4).

To some extent, the Learning Circles enabled the cultivation of all the competencies above. In chapter 7, I described how participants left their comfort zone and adapted to the Learning Circles model. The absence of a content expert forced them to seek solutions to their challenges. The inconsistencies of the MOOC model required them to curate learning resources. Peer interchanges gave them new learning strategies. By providing a structure that allowed these interactions to unfold, the Leaning Circles did not only provide access to resources: they opened new pathways for learning. I argue that these competencies aligned with the MOOC lessons increased people's ability to join other communities. For some students, like the NCLEX participants, this pathway complemented the regular instruction they received in Higher Education. For other students, like Jacob and Bianca, the groups were potential bridges for regular college classes. For Magdalena and Jonathan, it was a first step for engaging with other online learning possibilities. Therefore, the power of Learning Circles needs to be understood in their relation to other learning communities. Thus, Learning Circles can expand access to education, not only because of open educational resources, but also through individuals' increased ability to navigate distributed learning settings.

In my conceptual framework, I discussed how networks became the metaphor for understanding society in the 21st century. Learning Circles open the possibility of thinking about education in a networked fashion. Here, I am not talking about the fact that they rely on online resources. I am emphasizing the movement of students' transitioning from one

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learning environment to another one. When discussing teenagers' education, Ito et al. (2013) also highlight the importance of offering multiple pathways:

> Our approach draws on sociocultural learning theory in valuing learning that is embedded within meaningful practices and supportive relationships, and that recognizes diverse pathways and forms of knowledge and expertise. Our design model builds on this approach by focusing on supports and mechanisms for building environments that connect learning across the spheres of interests, peer culture, and academic life. We propose a set of design features that help build shared purpose, opportunities for production, and openly networked resources and infrastructure (Ito et al., 2013, p. 5).

The Learning Circles still need adjustments to maximize meaningful peer interactions in their groups, but their model resembles Ito et al.'s (2013) description. For this reason, they can help to shape the future of adult education in the 21st century even though it is not likely that they will replace universities. In discussing how OER are altering Higher Education, Jeremy Knox (2013) noticed two trends. In the first one, OER will enhance HE's current initiatives. In the second, it will offer a lower-quality substitute for regular Higher Education. The Learning Circle model offers an alternative option. It does not enhance or substitute traditional learning settings because its model is very different from traditional classrooms. These groups can constitute a strategic node in a networked educational scenario. As I discussed in the literature review, Swedes created *study circles* more than a century ago and these informal groups are still popular in the country (Larsson & Nordvall, 2010; Norberg et

al., 2015). In a similar fashion, Learning Circles can become a vibrant venue for informal education in the networked age.

I started this section stating that Learning Circles are a remix. For this reason, xMOOCs (Downes, 2012) that emphasize the distribution of knowledge on a large scale do not need to be the guiding content source for these study groups. For instance, a collective called FemTechNet gathered professors from 15 Higher Education institutions from the United States, Australia, and England to create a *distributed open collaborative course* (DOCC) on the topic of "Feminism and Technology" in 2013 (Fyfe, 2016; Jaschik, 2013). These scholars recorded weekly debates between them on topics such as technology, labor, sexuality (Jaschik, 2013). Even though each professor worked on discussions and assignments with their groups, all the videos and readings are available online:

> The DOCC is a hybrid, connecting face-to-face courses while also remaining open to a broader online community. For all the claims to disruption, MOOCs as formalized by providers like Coursera and Udacity simply scale up a conventional unit of college instruction, the single course; for their aims of being distributed, MOOCs continue to imply that knowledge gets delivered from an institutional locus with an elite pedigree. By contrast, with its DOCC, FemTechNet seeks to emphasize the participatory conditions of knowledge-making in distributed spheres by a variety of social actors and to provide the framework for instructors to accomplish this using their own courses" (Fyfe, 2016, p. 110).

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A DOCC offers a dialogical approach based on discussion that can help foster more conversations in the Learning Circles. Unlike MOOCs, which usually rely on few instructors and exposition, the collective FemTechNet brings a multiplicity of voices to the conversation. Thus, their model based on diversity and dialogue can help to address the fact that massive courses normally do not connect to the realities of local communities. Additionally, the relatively low cost of this initiative, around U$ 17,000 (Jaschik, 2013), indicates that it can be feasible to foster other similar projects.

As I mentioned in the previous paragraph, open education involves costs. For this reason, Learning Circles are open to learners, but their model is not cost-free. Thus, it is important to also discuss their sustainability over time. To develop this discussion, I will use David Wiley's (2007) definition:

> Sustainability might be defined as the ability of a project to continue its operations. And certainly, the idea of *continuing* is a critical part of the meaning of sustainability. However, we cannot place value on the simple ongoing machinations of a project and staff who produce nothing of value. So the definition of sustainability should include the idea of *accomplishing goals* in addition to ideas related to longevity (Wiley, 2007, p. 5).

Wiley (2007) explains that sustainability refers to incentive and not just to financial resources: "People will often volunteer to do things you could never pay them enough money to do" (p. 6). Projects do not survive just with volunteer work and Downes (2007) highlights that usually financial resources for OER initiatives come from donations or institutional affiliation. Currently, P2PU relies on volunteer work, grants, and courses that Higher

Education institutions offer. Thus, the project's challenge moving forward is to maximize

meaningful and quality learning experience to students, facilitators, and partners.

Improvements will help the project to become established in local communities and attract

new volunteers. As a consequence, these actions will justify the project's existence to future

donors and investors.

Chapter 10 – Conclusion

I started this dissertation with a quote from a student. Paula was a senior participant in a Public Speaking circle who believed in an education without barriers that would allow individuals to connect and transform their lives. Her testimony envisioned a future of inclusive learning settings with no walls. I conclude this dissertation arguing that openness in education should refer, not only to access to resources, but also to educational practices and models that increase people's agency and their ability to join diverse learning communities. In the previous chapter, I made four arguments to explain how Learning Circles helped to increase individuals' agency. Their model eased challenges related to access to technology, digital skills, and online participation. In addition, the groups offered a supporting learning environment that stimulated intellectual autonomy and the exchange of competencies among novices. Learning Circles required students to navigate distributed contexts and relationships, which allowed them to nurture dispositions of self-guided learners. As a consequence, they improved individuals' chances to participate in other communities, such as regular college classrooms, new study groups, communities of online practitioners, and even new job positions. For this reason, Peer 2 Peer University's project can serve as a catalytic node in networks of distinct learning contexts.

It is important to highlight that Learning Circles are an idea under construction. To ensure the project's sustainability, coordinators need to pay attention to affective labor (Hardt, 1999). Understanding the nature of the work taking place in the Learning Circles can help stakeholders further assist their volunteers. When discussing the affective nature of teaching librarians' their job, Sheesley (2001) highlights that: "Appropriate support includes

being provided with necessary resources, and having sufficient work time available for activities connected with [librarian] teaching" (p. 449). The affective work of facilitators set the tone for the groups, so their presence allowed more than simply fostering conversations: their caring actions encouraged participation and enabled learning. In addition to further support, coordinators also need to provide more training opportunities, so facilitators can maximize meaningful interactions in their circles. As I explained in Chapter 6, learners preferred face-to-face engagement because it allowed them to receive feedback and learn from their peers. However, they did not always know how to enact this value. This dissertation provided a detailed description of which types of exchange benefited learners. In summary, providing additional support and maximizing meaningful learning experiences will help to justify the existence of Learning Circles for future partners and sponsors.

In addition to its practical implications, this work also offers theoretical and methodological contributions. This dissertation fills a gap in the open education literature by showing how individuals use open resources in informal learning settings. I follow an emergent trend on the OER movement that asks researchers and activists to focus on practices that enable learning instead of looking just at resource production (Conole & Ehlers, 2010). Unlike communities of practice and related frameworks (Brown & Duguid, 2001, Engeström & Sannino, 2010; Lave & Wenger, 1991; Lindkvist, 2005; Wenger, 1998), my findings reveal a type of formation that relies on the exchange of knowledge and strategies among novices. Thus, I advance the scholarship on learning communities. In addition, my findings highlight that people's ability to physically move across spaces constitutes an important dimension for studying the digital divide. Currently, the literature on

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OER/digital divide focuses on access, skills, and usage, so I expand this framework. Finally, this dissertation provides an example of how the combination of an ethnography of hybrid spaces (de Souza e Silva, 2006) with a networked approach (Latour, 1996) can benefit research projects. Following traces allowed me to study the Learning Circles project vertically, which highlighted themes that were not obviously evident inside the study groups. For instance, I started to pay more attention to affective labor after several meetings with project coordinators in which they tried to understand how time consuming it was to facilitate a study group. Thus, the greatest strength of my methodological framework is the multifaceted view on my topic. This is an approach that other scholars can adopt as well.

This study also offers insight into teaching and learning practices. Scholars and educators (Fyfe, 2016; Jenkins et al., 2016; Selber, 2004) have been pointing out the necessity for bridging traditional schooling methods with exigencies from a networked era. Thus, the Learning Circles model offers inspirations for nurturing dispositions that allow individuals to navigate distributed contexts and relations effectively. To this end, instructors can open space in their classrooms for activities that require students to share meta-learning strategies and curate online content. In these instances, instructors should step back and act as "cheerleaders" (chapter 5) who reframe challenging situations and provide encouragement.

This study is not without limitations. These findings are not generalizable to larger populations even though they offer insights for other similar learning settings. I also studied a point in time of the Learning Circles project – their pilot round. Thus, I was not able to capture the challenges that individuals faced and possibilities they encountered after their courses were over. Future research can address some of these limitations. For instance, it

would be important to conduct longitudinal researches to explore the long-term effect of Learning Circles into students' lives. In addition, it would be interesting to investigate their study routines outside the Learning Circles to better understand the challenges that they face. Future research could also look more closely into circles dedicated to nurturing creativity, such as the Start Writing Fiction course. The two students that I interviewed were the only ones who did not miss having an expert in their groups. In this dissertation, I focused on the professional development groups, but other types of circles can provide further insights into self-guided learning practices. Finally, my dissertation focused on the possibilities that Learning Circles opened to individuals, however, it would be also pertinent to investigate the impacts that they have in their surrounding communities.

In conclusion, this research contributes to conversations about the OER movement by revealing how people are using these resources in informal learning settings. As I discussed in my previous chapter, it is not likely that Learning Circles will substitute regular universities. Their model does not offer the same quality of traditional Higher Education institutions. Also, Learning Circles participants deal with time constraints. It takes longer to master something new without the help of an expert. Even with all these challenges, Learning Circles have the potential to create bridges across distinct educational settings. Here, I bring Paula back to this conversation. She envisioned an educational scenario open, fluid, and empowering. The Learning Circles project alone probably cannot break all the existing walls in the current Higher Education system. In the long run, it will be possible to see with more clarity the potential that these groups can have in reducing social inequality. That said, Peer 2 Peer University and the Chicago Public Library took a step. A step in the right direction.

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