# Third Learning Spaces in Open Online Courses: Findings from an Interpretive Case Study

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# Dedication

This dissertation is dedicated to those who are looking for an *opening* in their lives.

## Abstract

In this case study, I present an interpretive exploration of five open participants' learning experiences in a massive open online course (MOOC), which was offered by a higher education institute in the United States as a general education course in research writing. There were two types of enrollment in the course: formal (students who enrolled in the course for credit, six sections) and informal (open participants). Open participants had access to the public activities of the learning community, but they did not receive any academic certification, evaluation, or grading from the instructors.

Blogging was central to all educational activity in the course. In this study, participant blogs are conceptualized as social spaces created by a multitude of interactions (e.g., with content, instructors, other learners, the imagined audience). These spaces were the starting point for the researcher to examine five open participants' learning activities in the course. Primary data sources were participant blogs, semi-structured interviews, and a case study journal with analytic reflections. Secondary data sources included participant observations, course documents and artifacts (e.g. the syllabus, course videos), and the course Twitter feed. Thematic analysis of data illustrates how open participants participated in the course in multifaceted and unique ways and created *third spaces of learning*—spaces that are neither informal or formal and that create opportunities for learning to occur in emergent and authentic ways (Cronin, 2014; Gutierrez, Rymes, & Larson, 1995). These spaces were possible because learners' informal identities, skills, and networks were welcomed into formal learning and capitalized on as important learning resources.

I present three typologies that point to the self-directed and authentic nature of open participation within those spaces: (1) *open participants created unique course histories through their blogs*, (2) *open participants did not follow the formal learning path*, (3) *instances of meaningful learning were visible at different times in the course and beyond*. These findings led me to strongly align with scholars who suggest that the traditional markers of success in formal education (e.g., sustained engagement, course completion, directly measurable outcome) are insufficient to frame participants' involvement in open online courses. The diversity in learner goals and roles calls for a need to shift the focus of open online courses from the *end product* to the *learning process* and challenges formal narratives of success and failure in open online courses.

I particularly highlight the contextual and shifting nature of openness and argue that it is crucial for learners to be aware of and develop open literacies, which I define as the skills and attitudes needed for successfully navigating and participating in open online spaces. The three design principles I offer—(1) *give voice to the authentic self*, (2) *recognize the contextual nature of openness*, and (3) *be cognizant of multiple layers of digital literacies, such as open and networked literacies*—might be of interest to anyone interested in designing open online courses as spaces for individual and collective dialogue.

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# Introduction

The affordances of web-based technologies allow learners to transcend the physical and socio-cultural boundaries of traditional classroom spaces and access, construct, and share knowledge in participatory networks. These affordances, coupled with the OpenCourseWare (OCW) movement, have led to the rapid spread of online courses that are open to anyone in the world with no institutional fees or prerequisites for participation (Caswell, Henson, Jensen, & Wiley, 2008; Rhoads, Berdan, & Toven-Lindsey, 2013). Such courses are typically referred to as *Massive Open Online Courses* (MOOCs) due to the large numbers of learners they attract.

A growing number of higher education institutions in the United States have begun delivering open courses through open education platforms, such as Coursera and EdX, or other content management systems like Wordpress. According to an extensive report on "the state of online learning in U.S. higher education" (Allen & Seaman, 2014, p. 3), the top reasons for academic institutions to offer a massive open online course are to "increase the visibility of the institution," "drive student recruitment," "experiment with innovative pedagogy," and "provide more flexible learning opportunities" (p. 25). The researchers, however, note that there are significant variations among institutions in terms of how and why they embrace MOOCs. For example, institutions with a large number of online courses are likely to deliver MOOCs to "increase the visibility of the institution," whereas institutions who have not made the leap to online education are likely to say that they plan on using MOOCs to "drive student recruitment" (p. 25).

Among the various institutional objectives to deliver MOOCs, the objective to provide *a flexible learning opportunity* demands our attention. Indeed, open courses are a powerful way to bring educational opportunities to learners from all walks of life. A paced online course with a real instructor or a self-paced course providing educational materials under an open license are invaluable for many learners, especially in impoverished or geographically remote areas lacking teachers and high-quality teaching materials, such as up-to-date textbooks and well-designed and well-researched curricula. Open courses also have the potential to change the way we think about our relationship to higher education institutions. Only a few years ago it would be a distant possibility for many learners to take a course from renowned universities such as Stanford or Harvard due to cost, admission criteria, geographic location, and competitive applicants.

Yet, caution is needed in celebrating the potential of MOOCs. Studies consistently show that most learners enrolled in MOOCs have at least a bachelor's degree (e.g., Emanuel, 2013; Koller & Ng, 2012; Jordan, 2014). Yuan and Powell (2013) note rather sombrely that "there is a risk that the current enthusiasm [surrounding MOOCs] is being driven by a self selecting group of highly educated, IT literate individuals who are able to navigate the sometimes complex, confusing and intimidating nature of online learning" (p. 3). Thus, openness does not equate to *access* and *participation*, and even if learners do join a MOOC the odds of dropping-out are high. Indeed, Jordan (2014) reports that "the majority of courses [on Coursera, EdX, or Udacity] have been found to have completion rates of less than 10% of those who enroll" (p. 150). This is not surprising considering that retaining students is typically a challenge in online courses than in face-to-face courses (Allen & Seaman, 2014). Problems with self-organization and self-evaluation, the isolation that learners might feel in an online class have commonly been noted as barriers to sustained participation and course completion in online courses (e.g., Galusha, 1998; McInnerney & Roberts, 2004; Palloff & Pratt, 2007). The open nature of the MOOC format, although commonly noted as a possibility that extends our horizons and not a limitation, also holds unique challenges for participation. Learners, on some occasions, feel the need to give priority to their formal studies or work over a course with loosely drawn boundaries for participation; some learners do not have the prior knowledge to successfully complete assignments (Belanger & Thornton, 2013). Another a barrier, lack of time, or choices as to how to use available time, is also a factor that may inhibit participation (Belanger & Thornton, 2013). It has also been noted that learners may experience "alienation" and negative emotions in response to close-knit communities that may form in open courses, which, in turn, diminishes the learner *voice* (Mackness & Bell, 2015, p. 34).

But how important is it to look at MOOC completion rates as a determinant for success? The "enormous attrition or dropout rates" (Ng'ambi & Bozalek, 2015, p. 451) may not, in fact, be a concern given the "context of learner intent, especially given the varied backgrounds and motivations of students who choose to enroll" (Koller, Ng, Do, & Chen, 2013). It has been noted that learners might join a MOOC to "bookmark" a course, to receive academic certification, for professional development, or simply out of curiosity (Belanger & Thornton, 2013; Koller, Ng, Do, & Chen, 2013). A report of a MOOC on bioelectricity showed four major categories of motivation for participation: (1) "to support lifelong learning or gain an understanding of the subject matter, with no particular expectations for completion or achievement;" (2) "for fun, entertainment, social experience and intellectual stimulation," (3) "convenience, often in conjunction with barriers to traditional education options," and (4) "to experience or explore online education" (Belanger & Thornton, 2013, p. 10).

These research findings on MOOC participation patterns suggest that learners' motivations to take a MOOC are complex and diverse—they might join a course to take notes for future reference, gain academic success, for self-fulfillment, or simply out of curiosity. Not surprisingly, participation patterns are more complex and flexible than in traditional courses (Kizilcec, Piech, & Schneider, 2013). Unlike traditional courses, in a MOOC learners can decide when and how to participate after their course starts, which on many occasions leading to a decision to drop-out the course (Cormier & Siemens, 2010). Even if learners decide to stay in a course, their participation patterns can fluctuate and may not align with "monolithic views of course completion" (for example, completion vs. non-completion or engaged vs. disengaged) (Kizilcec, Piech, & Schneider, 2013, p. 9).

However, our knowledge of the processes that lead to observed trends and patterns in MOOCs is limited (Mackness & Bell, 2015; Jordan 2014; Veletsianos, Collier and Schneider, 2015). Jordan (2014) draws attention to the limitations of using solely quantitative approaches in MOOC research and calls for further work "to better understand the reasons why those who become engaged initially do or do not complete courses" (p. 151)—a call that is further echoed by Veletsianos, Collier and Schneider

(2015) and Kizilcec, Piech, and Schneider (2013). Veletsianos, Collier and Schneider (2015) note,

> ...while researchers can say with increasing confidence what they observe learners doing in MOOCs, empirical evidence on why they do what they do, how they do what they do, and what it is like to participate in MOOCs is scarce." Understanding these aspects of the learning experience is essential for improving scholarly understanding of learning in online settings that share the technological or institutional characteristics of MOOC (ie, multimedia-rich platforms, minimal barriers to entry, etc). (p. 571)

Furthermore, Veletsianos and Shepherdson (2016) note that "while some interpretive research was conducted on MOOCs [between 2013 and 2015], it was often basic and it was the minority of studies that were informed by methods traditionally associated with qualitative research (e.g., interviews, observations, and focus groups)" (p. 198).

In an attempt to make a contribution to fill in this gap in the literature, this dissertation research is an interpretive case study on five open participants' learning experiences in a massive open online course. Through a contextual exploration of these learners' blog posts and semi-structured interviews, I focus on the *learner voice* and explore what course participation meant for these learners in an open course on research inquiry. More specifically, I wanted to understand why they joined the course, the ways in which they participated in the course activities, and the gains from participation, if any.

The implications of the study make a contribution to improving the open pedagogy—which according to Bayne and Ross (2014), “has been noticeably under-represented” in the educational discourse on MOOCs (p. 4).

**Research Questions**

This dissertation study was initiated by an overarching research question:

- (QA) What did open participation look like in a massive open online course on research inquiry?

During the initial stages of the research, additional questions began to drive the analysis. Emergent questions that further guided the study are as follows:

- (Q1) What were some common themes across open participant blogs, if any?
- (Q2) What did open participants’ participation patterns look like?
- (Q3) What did open participants’ learning look like?

**Definitions**

*Authenticity,* in the context of this study, refers to being defined by oneself rather than being defined by instructor expectations or course requirements (Tisdel, 2003). Authentic identity, then, is not imposed; it is part of learners’ self-narrative.

*Community* is "a group of people who share social interaction, social ties, and a common interactional format, location or 'space'" (Kozinets, 2009, p. 10). In the context of this study, the course community includes anyone who follows the course or participates in the course activities on thoughtvectors.net (the main course hub) or other social networking platforms such as Google Plus and Twitter.

*Identity* is "multifaceted" and can be examined from four perspectives: "personal, enacted, relational, and communal" (Hecht & Choi, 2011; Littlejohn & Foss, 2009, p. 140). In this study, identity is mainly discussed from two of these perspectives: personal, which can be described as the way we perceive ourselves, and enacted, which is the expression of identity through communication (Hecht & Choi, 2011). While I recognize the emergent and social nature of identity, it is beyond the scope of this research to examine the complex layers of the construct.

*Imagined audience* can be described as "a person's mental conceptualization of the people with whom he or she is communicating" (Litt, 2012, p. 330). In this study, I heavily draw from Marwick and Boyd (2010) who argued that:

> Every participant in a communicative act has an imagined audience. Audiences are not discrete; when we talk, we think we are speaking only to the people in front of us or on the other end of the telephone, but this is in many ways a fantasy. … Technology complicates our metaphors of space and place, including the belief that audiences are separate from each other. We may understand that the Twitter or Facebook audience is potentially limitless, but we often act as if it were bounded. (p. 155)

*Massive Open Online Course* (MOOC) is a course that is available to anyone in the world with no institutional fees or prerequisites for participation. In order to emphasize the open nature of enrollment rather than the scale of enrollment, I use *Massive Open Online Course* and *open online course* interchangeably in this study.

## Overview of Chapters

In the next chapter, Chapter 2, I present the assumptions that guided this research by a review of relevant literature. I pay particular attention to framing MOOCs as the phrase is now an overarching term that can be used to refer to many different types of open courses. I then discuss openness from two different aspects—as access and process—and focus on the literature that reveals the challenges in the processes of open education. I particularly highlight studies that focus on the learning experience in MOOCs using rich contextual data. I revisit some of these studies in Chapter 6.

I describe the research context in detail in Chapter 3. A thick description of the research context was necessary to give depth to the thematic analysis. In-depth contextual understanding is also essential for readers to better evaluate the discussion in Chapter 6 and evaluate the transferability of the implications of this research. This chapter also provides a review of literature that sheds light on the course vision.

In Chapter 4, I provide a detailed description of the research methodology and discuss the limitations of the study. I also provide an overview of research participants in this section. Readers will notice that I avoided using demographic data to build participant profiles. Instead, I focused on how participants represented themselves online and in their interviews and personal communications. In other words, participants defined themselves through practice and dialogue with the researcher.

Chapter 5 begins with a description of the emergent conceptual framework that guided the data analysis and interpretation in this research. I then present a thematic analysis of data through three typologies: *open participants created unique course histories through their blogs*; *open participants did not follow a formal learning path*;

*instances of meaningful learning were visible at different times in the course and beyond*. I use exemplars to highlight the nature of some of the identified themes in each typology.

In Chapter 6, I discuss highlights from the thematic analysis from three perspectives: *Nonlinear participation*, *space for emergent learning*, and *prior experience in open and networked learning*. Also in this chapter, I draw attention to the contextual and shifting nature of openness and argue that it is crucial for learners in open courses to be aware of and develop *open literacies*, which I define as the skills and attitudes needed for successfully navigating and participating in open online spaces.

# Literature Review

This chapter includes a synthesis of the literature review of topics relevant to the purpose of the study: understanding open participants' learning experiences in a massive open online course on research inquiry. First, I present the diversity observed in the literature regarding the structure of Massive Open Online Courses (MOOCs) themselves and highlight the need to focus on the context, including the nature of openness, in open courses rather than on their surface qualities such as large enrollment numbers. I then examine openness from two interrelated angles: as access and process. Finally, I focus on the processes of open learning and present a review of relevant research studies that focus on the learning experience in MOOCs using rich contextual data.

**Framing Massive Open Online Courses**

MOOCs have become an educational phenomenon that is still "in its infancy" in terms of research and practice (Bayne & Ross, 2014, p. 20; Raffaghelli, Cucchiara, & Persico, 2015, p. 488; Veletsianos, 2013). As an instructional design format, a MOOC typically has the following characteristics: (1) "technically able to handle a large number of students;" (2) "[has] an open enrollment," (3) "free to anyone with access and free from any prerequisites;" (4) "offered via online distance learning technologies;" (5) "[has] a definable topic, a goal to stimulate learning, a pace, and a beginning and end" (Kuna & Parrish, 2014, p. 61). Despite these commonly shared instructional design characteristics, there are significant variations among MOOCs in terms of applied pedagogy and overall curricular and instructional design structure. In addition, there is not a single philosophy, or an educational vision, that unites all MOOCs. It is commonly argued that (e.g., Andersen & Ponti, 2014; Downes, 2012; Ebben & Murphy, 2014; Rodriguez, 2013) there are two distinct types of MOOCs: cMOOCs—those that are built upon a connectivist pedagogy of learning (Downes, 2008; Siemens, 2004)—and xMOOCS—those that are built upon traditional models of learning, such as the lecture method.

Connectivist pedagogy organizes learning around complex and decentralized participatory networks—complex because learners are allowed to build their own personal learning networks, and decentralized, because learning activities are distributed across different platforms (e.g., a course site which serves as a hub, Facebook, Twitter, blogs). Instructors, just like learners, are nodes in their networks, exerting minimal force on the overall direction of individual learning paths. The design of connectivist courses is based on four principles: autonomy, diversity, openness, and connectivity (Downes, 2007). Here, it is important to note that learner autonomy is not the absence of instructional structure. Rather, it should be thought of as "maximizing the capacity of a person to make decisions and implement those decisions to improve their lives or meet their objectives" (Downes, 2013c, 12:45). In other words, autonomy means having *agency* in the learning process.

xMOOCs, on the other hand, organize learning around content, which is typically divided into modules. Instructors are present in the environment as content experts and provide a well-structured path of learning through pre-designed teaching materials such as video lectures and assignments, which are delivered conveniently through a learning platform. Due to their orientation toward content, such courses can be scaled up and offered to learners on a global scale relatively easily (Martin, 2012; Rodriguez, 2012).

However, there are many courses which do not fall into either the cMOOC or the xMOOC categories. The MOOC acronym itself has already been challenged by emerging models; for example, the open course *Dialogues on Feminism and Technology* is framed as a DOCC: Distributed Open Collaborative Course (http://femtechnet.newschool.edu/docc2013/). Some other emerging terms are POOC: Participatory Open Online Course (e.g., http://www.pcond.ca/pooc/), bMOOC: Blended Massive Open Online Course (Yousef, Chatti, Schroeder, Wosnitza, & Jakobs, 2014) and SMOC: Synchronous Massive Open Online Course (Chauhan, 2014).

Thus, the growing diversity we observe in the structure of MOOCs suggests that the "xMOOC/cMOOC binary is no longer representative or particularly useful" in MOOC research (Bayne & Ross, 2014, p. 8). Hall (2014) notes there is, in fact, a trend towards a "multiple MOOCs" approach:

> Rather than insisting that there is just one global way for future learning, the "multiple MOOCs" approach can recognize that approaches to learning – what it is and what it should be – are contextual, varying across regions, languages and philosophical traditions.

Hall's (2014) remarks are a reaction to the neocolonial narratives (e.g., also discussed in Altbach, 2013; Bali, 2014; Rhoads, Berdan, & Toven-Lindsey, 2013) of major open course providers (such as EDx, Udacity, and Coursera) that claim to provide a high quality educational opportunity on massive scales. EdX, for example, states that “[they] present the best of higher education online, offering opportunity to anyone who wants to achieve, thrive, and grow” (https://www.edx.org/about-us). Similarly, Coursera promises “universal access to the world’s best education” (https://www.coursera.org/about/).

However, as Hall (2014) noted, the true potential of open courses can only be realized with sensitivity to the unique learning contexts. Czerniewicz, Deacon, Small and Walji (2014) address this limitation by proposing a “purpose-focused categorisation of MOOCs that is informed by the institutional rationale, participant interest, and local context” (p. 128). Kuna and Parrish (2014) focus on openness as “a defining quality in MOOCs” (p. 60) and suggest that “MOOCs should be adopted with conscious and deliberate intent to utilize the openness the form allows, and not simply because they reach more students” (p. 1). Similar to Kuna and Parrish (2014), Knox (2013) cautions against equating open education with large scale access to open educational materials and argues that in order to increase the potential of open education, there is a need to focus on open educational processes as much as issues with open access. I explain these constructs (openness as access and openness as process) and how they might relate to one another further in the following section.

**Openness as Access and Process**

Access to publishable educational materials, such as course syllabi, readings, lectures, and presentations, with no restrictions is a fundamental pedagogical principle in most MOOCs, if not all. This principle aligns with the values of two prominent strands of the open education movement: Open Courseware (OCW) and Open Educational

Resources (OER). The OpenCourseWare Consortium describes Open Courseware as "open educational resources that are presented in course format, often including course planning materials, such as syllabi and course calendars, along with thematic content, such as textbooks, lectures, presentations, notes and simulations." Further, "Open Educational Resources are materials developed by experienced educators that are available for use, repurposing, and modification (including translation), in whole or in part, by everyone, everywhere in the world" (http://www.ocwconsortium.org/about-ocw/). Similarly, UNESCO (2011), building on Atkins, Brown and Hammond (2007), defines OER as "teaching, learning, and research materials in any medium that reside in the public domain and have been released under an open license that permits access, use, repurposing, reuse, and redistribution by others with no or limited restrictions" (p. v). A common theme across these definitions is that they all refer to the 4Rs (Wiley, 2009) of open education [1]:

> (1) Reuse – the right to reuse the content in its unaltered / verbatim form
>
> (2) Revise – the right to adapt, adjust, modify, or alter the content itself
>
> (3) Remix – the right to combine the original or revised content with other content to create something new
>
> (4) Redistribute – the right to make and share copies of the original content, your revisions, or your remixes with others.

The 4R framework is primarily concerned with issues around access to educational content, which, according to Knox (2013), is often treated as an "information

[1] David Wiley proposed "Retain" as the fifth "R" in March 5, 2014. (http://opencontent.org/blog/archives/3221)

repository" (p. 22) in open education. The primary goal of open education, then, is to "[bring] learners into contact with trusted supplies of knowledge" (p. 22). But access to content—the outcome of disciplinary practice—is only a small part of what many educators envision as a higher education experience (e.g., Cormier & Siemens, 2010; Watters, 2013). As Cormier and Siemens (2010) argue "the true benefit of the academy is the interaction, the access to the debate, to the negotiation of knowledge — not to the stale cataloging of content." Similarly, Downes (2013b) reminds us that open access does not necessarily mean access to instructional materials only:

> What open access means [...] is not just access to the content but also to the community itself [...], access to the teaching, access to the interaction of the participants among each other and with the instructors and guests in the course. (Downes, 2013b, 26'22"; as cited in Kuna & Parrish, 2014)

What Downes (2013b) suggests above is only possible through a social approach to open online courses. From a pedagogical perspective, as Woodward (2014) explains, in a social context, open can refer to "a purposeful path towards connection and community." This conceptualization shifts the focus of openness from content delivery to the creation of a "cognitive ecosystem:" one that is built upon meaningful relationships and connectivity (Brown et al., 2009, p. 62). Openness, then, can be framed as a process—"an immersive, networked practice" situated in online spaces (Campbell, 2012; Stewart, 2013). This is a process that very often requires educators and learners to be transparent in their online activities and share their practices openly with others (Cormier & Siemens, 2010; Dalsgaard & Thestrup, 2015; Wiley 2010).

**A Critical Look into the Process of Openness**

Stewart (2013) argues that in open courses the more people enter a network, the more powerful open participation becomes, as opportunities for communication and interaction escalate. Furthermore, open participation, according to Cronin (2014), creates an authentic audience "with students creating work that can be read, viewed, used, shared, critiqued and built upon by others" (p. 408). This ever-expanding capacity for online dialogue and authenticity in massive open courses has significant implications on the learning process, especially in the way we think about traditional learner and instructor roles. The lines between teacher and learner can be blurred because expertise can easily be distributed among learners through open practices (Koseoglu & Koutropoulos, 2016). The open sharing of the products and processes of learning can also help learners expand their personal networks and personalize their educational journey.

However, caution is needed in framing openness as an inherently positive experience for everyone involved (Veletsianos & Kimmons, 2013). It has been argued that “the networks, systems and codes of open education”—the latter referring to the values embedded in the organization and selection of educational materials—may impact the teaching and learning experience in both diminishing and empowering ways (Knox, 2013, p. 23; Edwards & Carmichael, 2012).

From an instructional point of view, openness can be a challenging notion, especially if one of the instructional goals is to create an open environment that grows into a culture of sharing and transparency. For those who are used to the bounded spaces of adult and higher education, embracing a spirit of openness in a digital environment with no boundaries requires fundamental changes in pedagogical thinking and practice (Iiyoshi & Kumar, 2008). In addition to the visionary and pedagogical challenges, instructors also need to have high levels of digital literacy skills to successfully navigate and orchestrate the learning environment. For example, a MOOC titled, *Fundamentals of Online Education: Planning and Application* was suspended shortly after it launched when a simple group activity using Google docs went “haywire" because of poor planning and technology glitches due to massive participation (Jaschik, 2013; Morrison, 2013). Given the promise of the course—learning "how to convert your face-to-face class to a robust online course" (https://www.coursera.org/course/foe)—the failure of the course is significant, especially in terms of the assumptions that can be made in teaching an open online course.

Furthermore, open scholarship—defined by Veletsianos and Kimmons (2013) as “teaching and research practices that espouse openness”—may introduce “new dilemmas relating to power, fairness, and equity” (2014). For example, the course, *Teaching Goes Massive: New Skills Required* caused tension among learners when it suddenly disappeared on Coursera and raised significant questions in the ethics of open teaching. The course instructor later explained that his decision to unexpectedly vanish and “[delete] all of the course content from the site, without explanation” (Koller, 2014, as cited in Kolowich, 2014a) was actually a performed experiment to “spur a discussion of the hazards of data mining in free online courses” (Kolowich, 2014b).

As for the challenges of open courses from learners’ perspectives, significant barriers lie in the unbounded and networked nature of open courses. In the final section of this chapter, I present a review of relevant research studies that reveal some of these barriers for learners using rich contextual data. There are two lines of research that intersect and have to potential to inform one another on this topic: research on connectivist MOOCs and research on xMOOCs (with the latter providing "minimal insight on learner experiences" as noted by Veletsianos, Collier, and Schneider, 2015). However as I have argued before, these categories are often problematic and inadequate to address the complex nature of MOOCs. Thus, I focus on the context of the studies in particular to better understand how, and if, findings from one study can be transferred to another. I revisit some of these studies in Chapter 6, *Discussion*.

**Review of Relevant Research Studies**

Mackness, Mak, and Williams (2010) explored learner experiences in the Connectivism and Connective Knowledge course (CCK08)—the earliest example of a cMOOC—through the lens of the connectivist framework, particularly in relation to the core principles that the course was built upon: "autonomy, diversity, openness and connectedness/interactivity" (p. 266). The researchers used a mixed methods approach through an online survey and follow-up e-mail interviews. One striking finding from this study was:

> [t]he more autonomous, diverse and open the course, and the more connected the learners, the more the potential for their learning to be limited by the lack of structure, support and moderation normally associated with an online course, and the more they seek to engage in traditional groups as opposed to an open network. (p. 266)

The researchers also emphasized the importance of building trust to avoid connections that "degenerate into interference and noise" in an unbounded open network (p. 272). They noted "...open courses thrive on interconnectedness, transparency and sharing, but sharing for many people requires trust, and the more connectedness there is, the more time-consuming and hazardous it may be to build trust" (p. 272). As such, the authors concluded that "some constraints and moderation" were crucial for maximizing the potential of open courses, because connectivity in and of itself did not equate to learner engagement and social interaction (p. 272).

Data from the same study informed another study (Mak, Williams, & Mackness, 2010) on learners' use of blogs and forums as "communication and learning tools" (p. 275). Researchers noted that learners created "personal spaces" through their blogs, which were used for "personal learning, quiet reflection and developing personal relationships with bloggers and others." (p. 275). Forums, on the other hand, were more for quick sharing of ideas and having discussions. It is interesting to note that during the course choices as to which platform to use were dictated by classroom events more than course requirements or learner preferences prior to the course. For example, the most influential factor (64.6%) for participants to"[cease] participating in forums for some or all of the time" was because of "[u]nacceptable behaviour (including forceful intellectual debates, feeling of forced participation, and rude behaviour)" in forums (p. 278). Similarly, the most influential factor for participants to switch from forums to blogs was again unacceptable behaviour (46.2%) (p. 278). The research also pointed "to a maturing of e-learning users" and "social networking" (p. 283). Learners not only responded to the immediate affordances of the learning environment but they also “develop[ed] those affordances in innovative and nuanced ways, with little regard to the ‘capabilities’ required or limitations of the particular media” (p. 283). For example, some participants used blogs strategically “for entering into engagement in the forums” or for curating resources for future reference (p. 282).

Kop, Fournier, and Mak (2011) used a mixed methods approach (surveys, qualitative observations, a focus group, and network data) on two connectivist courses (cMOOCs): Personal Learning Environments Networks and Knowledge (PLENK2010) and Connectivism and Connective Knowledge (CCK11) to “[examine] how emergent technologies could influence the design of learning environments,” with a particular emphasis on teacher and learner roles. Findings confirmed previous research by Mackness, Mak, and Williams (2010) along multiple dimensions. First, the researchers also pointed out to the need for finding a fine balance between supporting learners to make the most of “the openness, diversity, and interactivity” offered by MOOCs and the self-directed and emergent learning opportunities arising from the format’s unique affordances. Second, the need for building trust in the environment was also emphasized in this study. The researchers argued that "the creation of a place or community where people feel comfortable, trusted, and valued, and where people can access and interact with resources and each other" was critical in learner engagement in open courses. Third, the researchers also observed that the nature of participation was impacted by prior experience in networked learning: as opposed to expert users who confidently created artifacts and created and expanded their personal networks, novice users showed "a higher level of consumption of resources created by others."

The maturing of “e-learning users” and “social networking” (Mackness, Mak, & Williams, 2010, p. 283) was also observed in Waite, Mackness, Roberts and Lovegrove, 2013. The researchers examined “triggers for active participation” in a short introductory course (cMOOC) on teaching and learning in higher education. The course was based on the 4 principles of connectivism as noted by Downes (2009): autonomy, diversity, openness, and interactivity. However, different from the three courses previously described here (CCK08, PLENK2010, and CCK11) it had an optional assessment component for open participants. The researchers employed a mixed-methods case study using learner logs, a course evaluation questionnaire, focus groups, interviews, and a survey. Three main themes emerged from the study:

> (1) Navigation: New participants felt overwhelmed by technical issues, multiple channels, and a perceived need to multitask, while experienced learners were judicious about planning their route;
> (2) Transformative learning: Ultimately, learners experienced a transformative shift, but it required reflection on practice, community support, and self-organization;
> (3) Reciprocal Relationships: New learners needed time to determine their audience and core community, as well as to realize mutual relationships within that community. (Waite, Mackness, Roberts, & Lovegrove, 2013)

Veletsianos, Collier and Schneider (2015) conducted a qualitative case study by interviewing 13 participants who participated "at least 3 weeks in at least one MOOC" (p. 575). Consistent with previous research by Kop, Fournier, and Mak (2011) the researchers found that learners' activities were distributed over social networks outside of the official MOOC platform. In addition, majority of participants reported note-taking, both on paper and digitally. Furthermore, the nature of "content consumption" (e.g., watching a lecture video) was significantly shaped by the realities of adult life, such as looking after children or full-time work.

It is interesting to note here that all participants in Veletsianos, Collier and Schneider's (2015) study, except one, were "enrolled in multiple MOOCs over the past year" (p. 575). A mixed methods survey study by Bozkurt and Aydin (2014) on the E-Learning and Digital Culture MOOC, which is considered as a hybrid MOOC, also revealed that more than 90% of MOOC participants; in other words, "MOOCers," were willing to enroll in a future MOOC. Survey results showed that some of the barriers learner experienced in the course were time management (51.6%), insufficient digital literacy (15.5%), using English as a second language (5.6%), and limited understanding of content (5.6%) (2014, p. 36). It is also interesting to note that, similar to Kop, Fournier, and Mak (2011) and Mackness, Mak, and Williams (2010), the authors note that "the chaotic environment that MOOCers experience" (for example, difficulty in "following multiple platforms" such as Facebook, Twitter, and Google Plus) was also a major barrier for learning (39.8%) (p. 36-38):

> It is obvious that not all MOOCers are autonomous and they need more support. With this in mind, learner support systems such as course orientation and guides should be prepared because most of the newbie MOOCers are not experienced MOOC participants. Knowing what will happen in a safe environment might also lessen the high drop-out rates that is observed in many MOOCs. (p.38)

Adams, Yin, Madriz, & Mullen (2014) conducted a phenomenological study to explore learners' lived experience in their interactions with video lectures in xMOOCs. The researchers found that some learners experienced a sense of *eventedness*, which is described by White (2009) as "the sense that you are part of a shared endeavor"[2]. Adams, Yin, Madriz, & Mullen (2014) further explain that this shared experience is "characteristic of large-scale, fan-based public events," such as "a rock concert or major sporting event" (p. 11). However, learners still experienced intimacy with their instructors; that is, learners imagined that instructors were speaking to them personally in their instructional videos. Furthermore, learners experienced a temporal and spatial collapse in their interactions with videos: Adams, Yin, Madriz, and Mullen (2014) describe a student who perceived instructional videos as immediate and personal despite a two-week long absence. Based on the students' lived experiences, the authors argue that lectures "have the capacity to speak to a student in a manner akin to the way the good author can engage his or her reader" (p. 10) and assert, "... just as the words and letters on the page disappear for the absorbed reader, when learning from the xMOOC video

[2] Although Adams, Yin, Madriz, and Mullen (2014) attribute "eventedness" to Cormier (2009), White (2009), in fact, originally proposed the term to describe a shared but not necessarily a collaborative endeavor.

lecture, students leave behind the digital world of the xMOOC and instead find themselves captured by the unique tutorial sphere occasioned by the instructor" (p. 10).

**Conclusion**

In this chapter, I first demonstrated that MOOCs are diverse in terms of applied pedagogy and overall curricular and instructional design structure. I emphasized the need to examine the context, particularly the context of openness, in researching MOOCs. I then examined openness from two perspectives—access and process—and highlighted important pedagogical issues surrounding open educational processes through relevant research studies and recent practices. The review suggests that the openness and autonomy afforded by open courses should be balanced by moderation and instructional support to maximize the potential for meaningful learning. Furthermore, the meaning of interaction is complex in open courses because learners can build relationships with others or have a sense of connection, which could be positive or negative, even in the absence of direct communication. It is important to consider these findings in this dissertation study because they show that meaningful learning do not necessarily arise from the connectivity and openness afforded by open courses (Mackness, Mak, & Williams, 2010). It is particularly influenced by the social events in and outside of the learning environment, instructional pedagogy and vision, and learners' prior experiences in other open courses. I further discuss some of these factors in Chapter 6.

# Research Context

In this chapter, I describe the context of my dissertation research in-depth as a starting point to explore the learning experience within a Massive Open Online Course designed by the Virginia Commonwealth University (VCU). In particular, I present the organizational and pedagogical settings of the course to help readers better understand the factors that might have contributed to the findings in this study. This chapter provides a review of literature that illustrates the course vision in detail.

## Course Description

In summer 2014, I joined an eight week-long massive open online course offered by the Virginia Commonwealth University (VCU) as a participant observer. *UNIV 200: Inquiry and the Craft of Argument* was a 3 credit general education course on research writing (Campbell, 2015). There were six sections in the course. All sections were delivered completely online and in an open format, which allowed anyone with the course link to observe and participate in the course activities (the design of the course is further explained below in *Course Design*). The course was framed as a "digital engagement pilot" (http://thoughtvectors.net/summer-2014-syllabus-thoughtvectors-1-0-the-pilot-episode/) as it was the first massive open online course designed by VCU. The overarching goal of the course could be summarized as creating “deep intellectual engagement” in a collective space (Campbell, 2014a)—a space of inquiry and curiosity, where students "develop the awareness, skills, habits and dispositions necessary to take full advantage of the affordances of the Web" (http://thoughtvectors.net/how-to-participate/) (see Appendix A1 for a detailed outline of the course schedule).

Participation in the course could broadly be categorized as formal and informal. Formal students were VCU students who were taking the course for credit (registration in each section was limited to 20 students). These students' work was "evaluated and graded" by their section instructor (Campbell, 2014b). Informal students were the open participants. Open participants had access to the public activities of the "learning community," but they did not receive any academic certification, evaluation or grading from VCU (Campbell, 2014b).

Students taking the course for credit had to complete a different course, UNIV 112, as a prerequisite, which is described as "a research and writing process course that emphasizes critical analysis, elements of argument, inquiry-based research skills, writing conventions of academic argument and the presentation of argument and research into new mediums" (Campbell, 2015, 23:10). As the official title of the course suggests, UNIV 200 also focused on crafting an argument through inquiry-based learning processes, but it offered to students something that UNIV 112 did not: an opportunity to learn *on the web* and *with the web* using the tools, resources, networks, and systems that might be available, in other words, through the unique affordances of the World Wide Web (Campbell, 2015).

**Course Design**

The course design was complex as six sections were delivered at the same time and were connected through a central hub (thoughtvectors.net), which in a way created one large class (called "the main course" in syllabus) with multiple instructors and approaches (see Figure 1) (all sections were taught by one section instructor). All the section instructors—Jon Becker, Bonnie Boaz, Ryan Cales, Gardner Campbell, Jason Coats, and Jessica Gordon—were involved in the course design.

The learning hub aggregated activities from various platforms such as learner blogs, Twitter, Google Plus, and YouTube (see Figures 1 & 2). The purpose of this syndication was to encourage the creation of a learning community. Each course section had a separate site designed and facilitated by the section instructor. Jon Becker, the director of Online Academic Programs and Learning Innovations at VCU and one of the section instructors, explains that these sites were like "clubhouses": the building blocks of the full course (Becker et al., 2014b, 48:19) (for an example, see Figure 3).

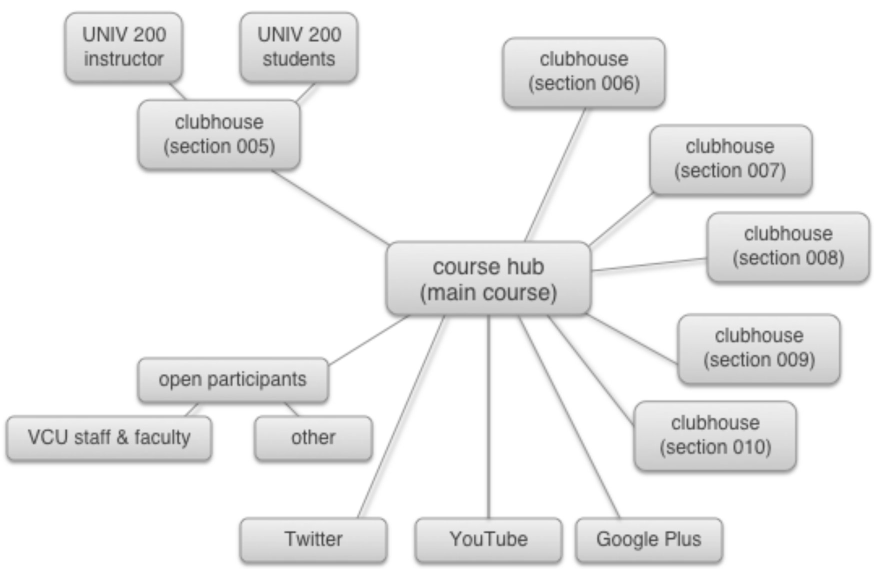



*Figure 1*. The course structure of *UNIV 200: Inquiry and the Craft of Argument.*

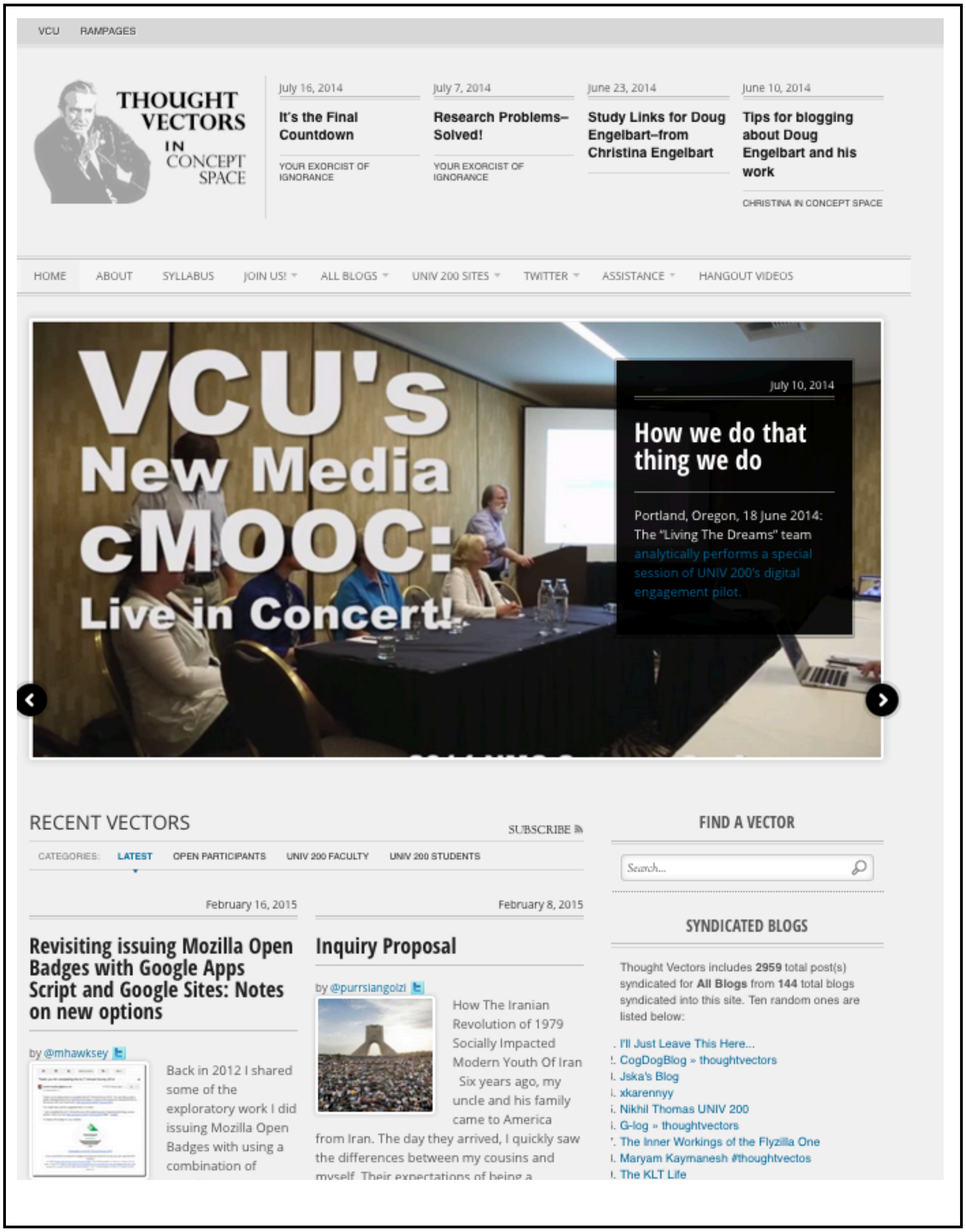



*Figure 2*. The common meeting place for all participants in the course was thoughtvectors.net. The course hub aggregated course activities from various social networking platforms such as Twitter, Google Plus, YouTube, and learner blogs.

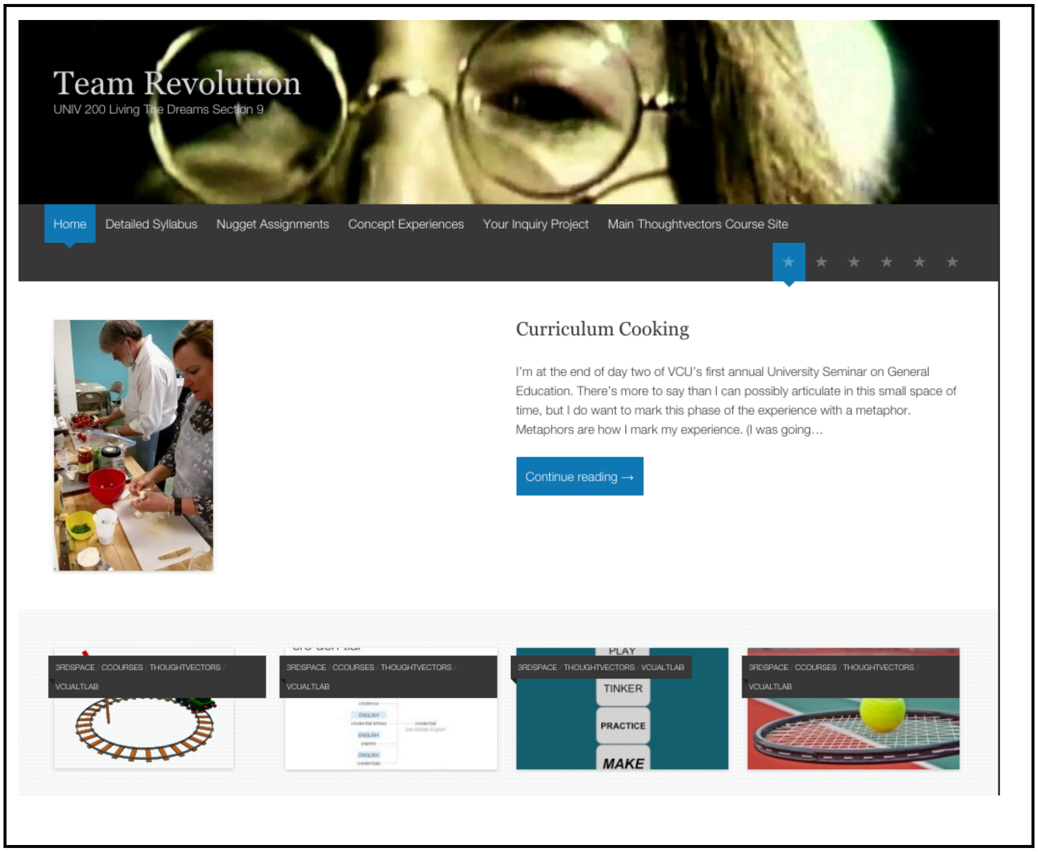



*Figure 3*. Section 009 clubhouse. The section site has a feature that aggregates all blogs by the section instructor and students (open participants are not included). Learners are directed to the main course hub through the tab "Main Thoughtvectors Site" along the top of the page.

The overall design of the course site, including all six sections, was emergent and playful. The emergent nature of the course is explained by one of the course designers, Alan Levine:

> You see, most big time media gushing MOOCs, are planned carefully upfront, all of the things are put into place, content neatly lined up like books on a shelf, videos pre-recorded, and then a lot of fanfare is announced. The expectations are largely put into place. It's not to say that

UNIV 200 lacks a plan, but it is not tightly choreographed. It shall be emergent, not emerged. (Levine, 2014)

Campbell (2015) also explains that there was a deliberate effort to present the content “in curious and unexpected ways” (30:35) to increase learner engagement. During my experience in the course, I also observed that humor was used often to create a positive and joyful learning experience (for examples, see Figures 4 & 6).

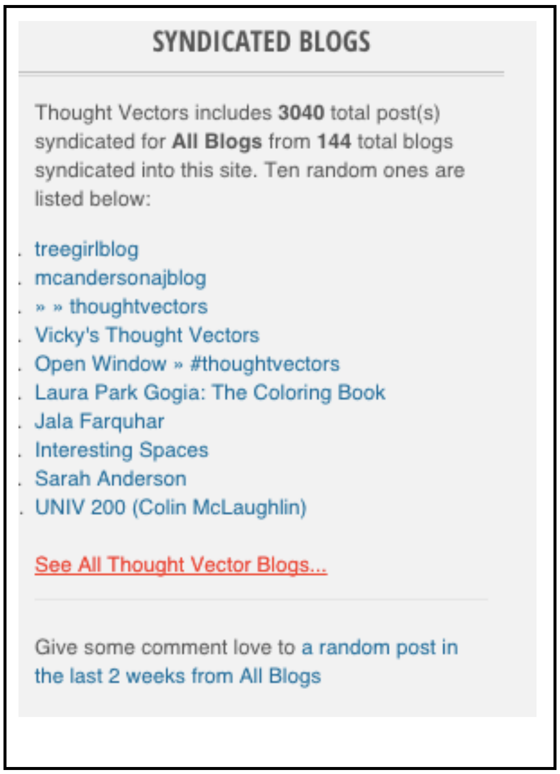



*Figure 4*. Learners are asked to “give some comment love” to random blog posts on the main course hub thoughtvectors.net.

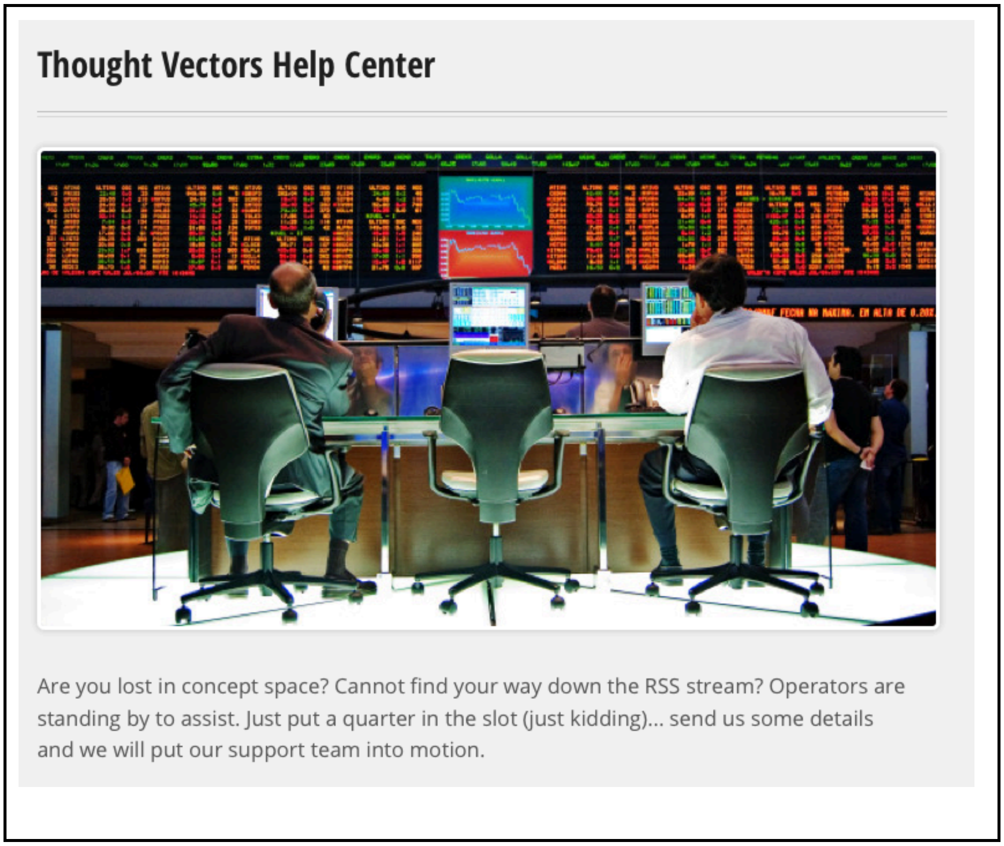



*Figure 5*. Introduction to *Contact Us* on thoughtvectors.net.

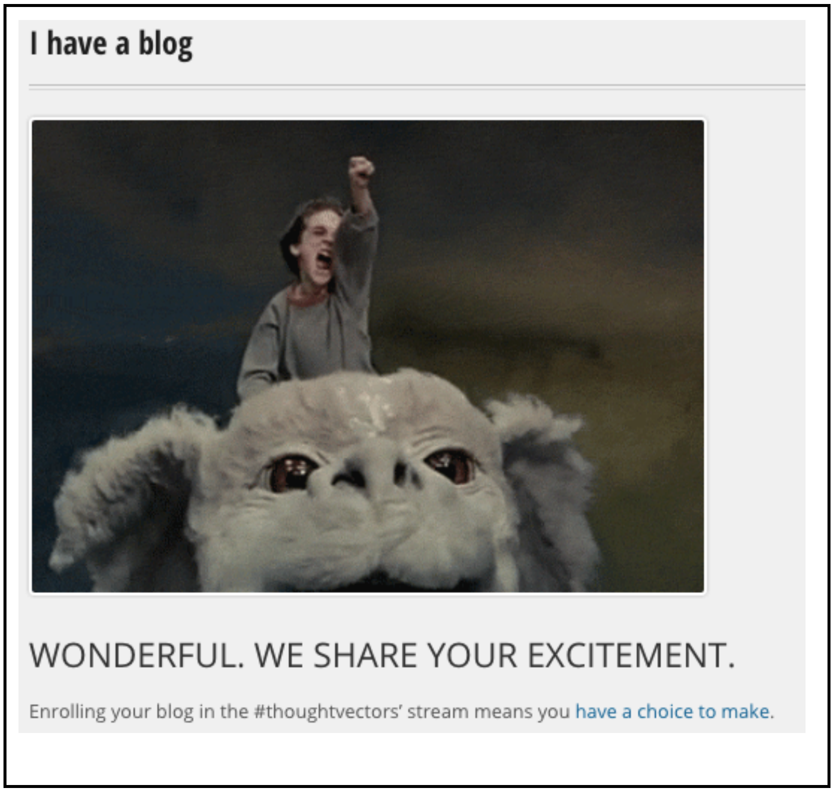



*Figure 6*. A message that appears during blog syndication on thoughtvectors.net.

**Course Assignments**

Blogging was central to instructional and learner activity (see Appendix A1 for a detailed outline of the course schedule) within UNIV 200. Learners in the course were required or encouraged to create public blogs as a space for them to be present on the web (http://thoughtvectors.net/rss-stream/). Some major assignments required for for-credit learners included:

**Nuggets**. For each class reading, learners chose a passage that grabbed their attention and crafted a blog post reflecting their reactions to it. The assignment description is provided in Appendix A2.

**Concept Experience.** Learners (a) actively explored different concepts and made connections between their immediate experience and the ideas presented in the assigned readings, and (b) worked with ideas presented in the readings and used them as "a framework for thinking about certain concepts" (http://rampages.us/revolution/augmenting-human-intellect-concept-experience/).

For example, in the "As We May Think Concept Experience" in week 1, learners were asked to record their web browsing history and reflect on their experience in their blogs. They were also encouraged to connect their experience to the assigned article for that week: As We May Think by Vannevar Bush (1945). The full assignment description for this concept experience (section 009) is available in Appendix A3.

In "Creating a Fantic Blog Site" in week 4, learners were asked to work on the design of their blogs using Ted Nelson's (1974) concept of *fantics*: the "art and science of getting ideas across, both emotionally and cognitively" (p. 319). The full assignment description for this assignment (section 009) is available in Appendix A4.

**Inquiry Project.** The final assignment in the course was the inquiry project, which was a research and writing project "for the digital age"(http://thoughtvectors.net/summer-2014-syllabus-thoughtvectors-1-0-the-pilot-episode/). Patty Strong (the Director of Core Writing at VCU) explains that by framing writing as a collective activity that could be augmented with connections, course designers were able to "re-imagine what the composition classroom should be in the 21st century" (Becker, 2014a, 18:21), taking the research paper "move beyond the structure and confines of the [paper based] page" (19:36). As Bonnie Boaz, (faculty at the University College VCU and one of the section instructors) mentions in the first course hangout, learners were strongly encouraged to "integrate other voices into their work"

(Becker et al., 2014b) and create a non-linear line of inquiry marked by hyperlinks and multimodality (e.g., GIF images, videos).

The full assignment description for the inquiry project (section 009) is available in Appendix A5.

Learners worked on their inquiry projects throughout the course and posted their final work online at the end of the course. As part this assignment, they also worked on *progress report/research reflections* each week, reflecting on the week's experience and their progress on their inquiry projects (http://rampages.us/revolution/progressreport/).

**Course Vision**

The unofficial title of the course, *Living the Dreams: Digital Investigation and Unfettered Minds*, reflects the aspiration of the course designers. *Dreams* refers to "the vision of the pioneers and architects of the digital age, people like Vannevar Bush, J. C. R. Licklider, Doug Engelbart, Ted Nelson, Alan Kay, and Adele Goldberg" (http://thoughtvectors.net/summer-2014-syllabus-thoughtvectors-1-0-the-pilot-episode/). Learners explored the works of these 20th century "visionaries of computers and computing as we know it today" (Becker, 2014) as a starting point to think critically about their relationship with the World Wide Web and develop meaningful inquiries. *Unfettered minds* refers to the nature of inquiry that course designers hoped to see in learners' work: "curious," "open-minded," “courageous,” "sincere," interest-driven and unbounded in the open space of the web (Becker et al., 2014b).

The catchphrase of the course, *thought vectors in concept space*, is key to understanding the course vision. In a blog post, Gardner Campbell, the Vice Provost of

Learning Innovation and Student Success at VCU, who also coordinated the collaborative course design and facilitated a course section, explains the origin of the catchphrase and its symbolic meaning:

> Why "thought vectors in concept space"? Because that's how Doug Engelbart envisioned the mental environment that personal, interactive, networked computing would make possible, an environment in which our "collective IQ" could realize itself and rise to its full and necessary potential. For me, "thought vectors" are the lines of inquiry, wonder, puzzlement, and creative desire emerging from individual minds. We launch our thought vectors into "concept space," the grand commons of human invention and communication, the space in which we build our symbols and work toward mutual intelligibility, mutual hope, mutual inspiration. (Campbell, 2014c)

Jenny Stout, teaching and learning librarian at VCU libraries, who also served in the UNIV 200 Curriculum Committee, further explains the meaning of "a concept space":

> A concept space is anything that is outside of your own head. So Twitter is a concept space, the library is a concept space, a classroom, either in person or online, is a concept space; and even just the conversation between two people can be a concept space: anywhere where you share your ideas and your thoughts and you can inspire someone to share their ideas and

> together kind of create new ideas and have this sort of mutual riffing going on. (Stout, 2014, 0:48-1:15)

Thus, a thought vector does not fulfill its potential unless it is *expressed* openly and *shared* with others. The outcome of this process is uncertain, because thought vectors can “connect in ways that we can't predict" in the social spaces of the web (Campbell, 2015, 5:30).

As a starting point, learners in the course were invited to share their thoughts and ideas "without fear" (Stout, 2014: 2:58), to initiate conversations with the content (e.g., writing a reflective blog post on an assigned article) and others (e.g., posting a comment on another learner’s blog). Instructors hoped that students would engage in "exuberant discovery" (Kohn, 2004): joyful and curious exploration of content and relationships (Becker, 2014; Campbell, 2014d). As Gardner Campbell noted, making mistakes was deemed as a natural part of this process (Becker, 2014b, 54:08).

The idea of learning as *launching thought vectors in concept space* was instrumental in the overall course design, including the course website (thoughtvectors.net), the hashtag used for Twitter activities (#thoughtvectors), and assignments. For example, in their inquiry proposal drafts, learners in section 009 were asked to explain the "area of inquiry" (e.g., Math education), the "direction (vector) of inquiry" (e.g., how to make Math engaging and enjoyable for students), and how they would bring life to their project "in the concept space of the web" (e.g., publishing a series of blog posts on the issue) (http://rampages.us/revolution/inquiry-proposal-draft-1-request-for-comments/).

**Pedagogical Frameworks**

Laura Gogia, the Academic Learning Technology Lab Graduate Fellow at VCU (who also actively participated in UNIV 200), notes that VCU's online courses are at the intersection of connected, open, and networked learning. The Digital Media Learning Research Hub proposed *connected learning* as a pedagogical framework and a philosophy of teaching and learning that frames and organizes learning as a social, communal, and participatory activity (Ito et al., 2013). However as Gogia (2015) notes, VCU has been "inventing its own distinct brand of Connected Learning":

> [This distinct brand] has qualities of open education, but it's not about MOOCs (x or otherwise). It shares a name and theoretical foundations with DML Research Hub's Connected Learning, but it is situated within formal, institutionalized, higher education – with all the unavoidable trappings of accountability, assessment, and evaluation. (Gogia, 2015)

A detailed outline of connected learning course designs at VCU is presented below (2016) (Table 1).

Table 1
*The Connected Learning Course Design at VCU*

| **Connected Course** | **Online Presence** | **Openness** | **Digital Expression** | **Participation** | **Student Agency** |
|---|---|---|---|---|---|
| Minimum Criteria | Web-Enhanced | Course syllabus & documents housed on | Students blog publicly | Students comment on each other's blog posts | Students retain access to course materials and |

| | | | | | |
|---|---|---|---|---|---|
| | | public website | | | learning products (individual & group) after the course |
| ⬇ | Hybrid & Blended | Required materials (e.g. readings, digital tools) are open access/sourced. | Students are asked to use multimodal expression in their blog posts | Students work together to curate the web (crowdsourcing) | Students contribute to the course learning materials |
| | | | Students are asked to generate their own multimodal creations in their blog posts | Students engage in synchronous or partially synchronous class discussion (e.g. Twitter, Facebook, Discourse) | Students are able to adapt learning activities & products to their personal learning goals |
| Web-Enhanced | Fully Online | Open participant course enrollment is encouraged | Students are asked to create and demonstrate digital workflows across digital platforms | Students engage in collaborative projects | Students participate meaningfully in their own assessment |

Table 1. Adopted with permission from Gogia (2016). The table illustrates five areas of design in a connected course at VCU.

In addition to connected learning (as framed by VCU), I observed four prominent aspects of pedagogy used within the course:

**Blogs as personal cyberinfrastructures.** Campbell's (2009) previous work on *blogs as personal cyberinfrastructures* was essential in framing the nature of production in the course and beyond. Learners were encouraged to become *a web-maker*; in Gardner Campbell's words, someone who is not "just a web-user, someone who really gets into the read/write spirit of the web as much as possible" (Becker et al, 2014b, 12:38). User blogs were not just spaces where learners responded to the class assignments, they were spaces where learners could be present on the web and "frame, curate, share, and direct their own 'engagement streams' [Campbell & German, 2009]" (Campbell, 2009). In other words, blogs were spaces where learners could document and figure out their lived experience as they continued their educational journey within and across courses (Campbell, 2009, p. 59; Hart, 2015). Thus, blogs were "more than gateways to course activities and materials," they were "instead course catalysts" for meaningful learning (Campbell & German, 2009).

**Whole person.** A recurring theme during the course was to bring the *whole person* into the learning experience through blogs and other social networking platforms such as Twitter. Learners were encouraged to bring their interests and passions into their learning and pursue lines of inquiry that were meaningful and relevant to their "academic, professional, or personal" goals through carefully designed activities (for an example, see Appendix A5) (http://altlab.vcu.edu/showcase/defining-connected-learning/).

**Connected experiences.** As Gardner Campbell explained in the first course Google hangout, the hope was that learners would have "the experience of thinking together on a network" (Becker et al, 2014b, 58:25). Almost all learning activities were transparent and dispersed in the open web to connect formal learning "with other aspects of living, working, or "doing" across space, time, and multiple spheres of influence or community" (http://altlab.vcu.edu/showcase/defining-connected-learning/). The works published on the course site belonged to university students, faculty and staff at VCU, and anyone who joined the course out of curiosity or interest. This diversity in participation meant *diversity in audience*: for example, any blog post published during the course could be read and commented on by people other than the course instructors.

**Community-building**. The instructors strived to create and nurture a learning community, which often times was referred to as the *thoughtvectors community*. Instructors positioned themselves as co-learners in the class and sought "deep intellectual engagement" with the learners. Participants were grouped into predefined categories such as VCU faculty and staff, UNIV 200 faculty, UNIV 200 students, and open participants in the course, further creating sub-communities. Interaction within and across different spheres of community was encouraged (e.g., encouraging a section student to leave a comment on an open participant's blog). Although having a shared purpose was clearly visible in the activities of section students and VCU faculty and staff, its presence was weak among open participants, which I further explain in the section *Findings*.

## Research Focus: Open Participation

Informal or open participants were not "students" in a traditional sense. Open participants were invited to the course as "co-learners," or "energy inputs" (Gardner, 2014c) and they were not required to show their understanding of the course content or complete any assignments. They did not receive any grading or formal feedback from the instructors or certification or enrollment documentation from the institution showing that they followed along and completed the assignments.

It is not possible to know the exact number of open participants in the course, as the learning activities were distributed across multiple platforms and some people were more active in some platforms than others. The open nature of the course is also likely to have caused a large number of lurkers (someone who observes course activities but does not actively participate), who were there, but did not initiate any communication with others. During the time I collected blog post data (approximately 3 months between January and March 2015), there were 30 open participant blogs on the course hub and over 300 total posts (see Figure 7). (It is interesting to note that in May 2015, almost after a year the class officially ended, one more open participant joined the course).

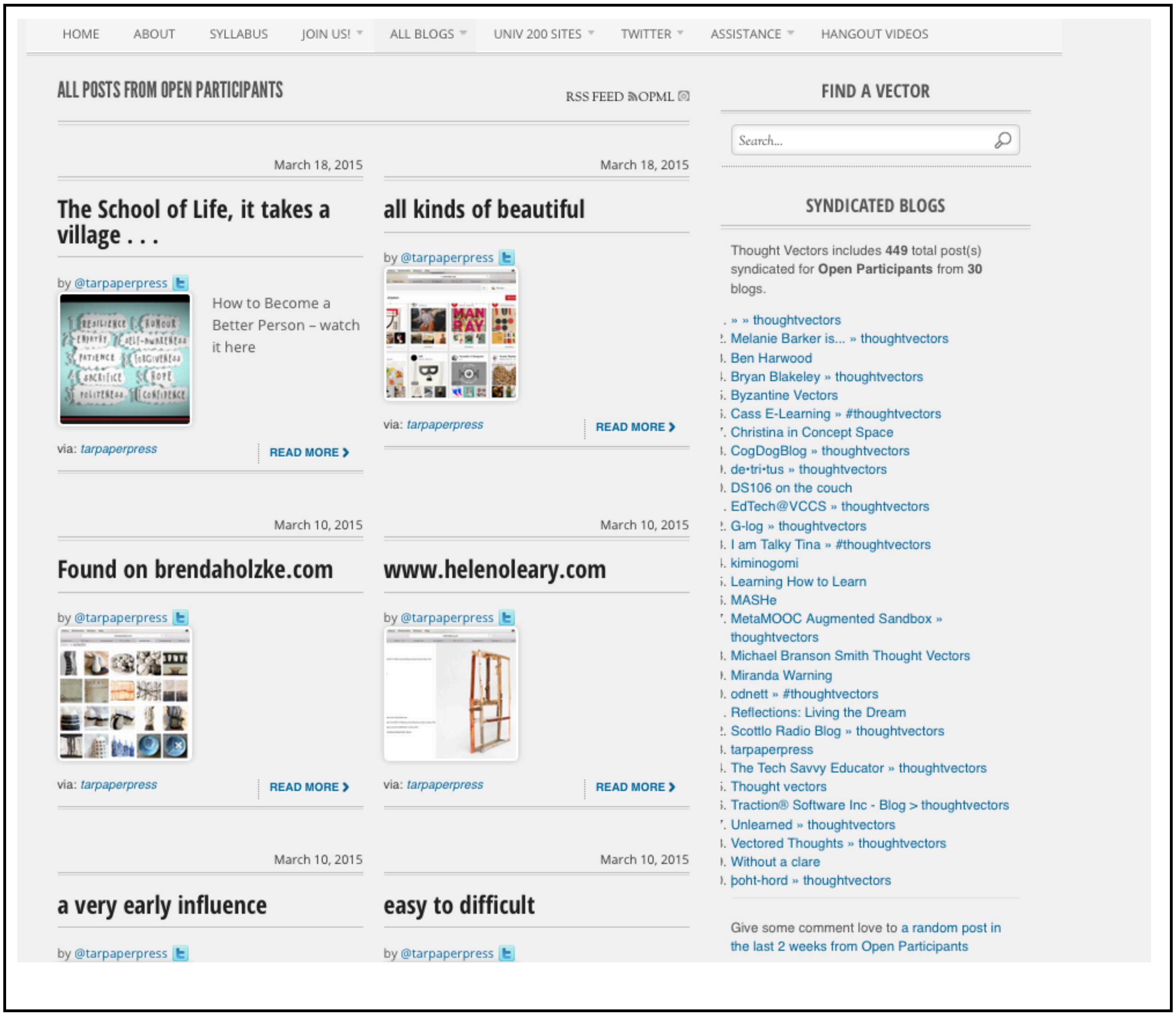



*Figure 7*. Open participants' blogs are featured on the right-hand side of the course website.

In the study, I focused on a small group of open participants who were visible in the learning environment through their syndicated blogs on the course hub thoughtvectors.net. These participants and the reasons for their selection are introduced in the next chapter, *Methodology*.

# Methodology

The purpose of this dissertation study is to explore open participation in a Massive Open Online Course. More specifically, my goal was to examine why open participants joined the course, the ways in which they participated in the course activities, and the gains from participation, if any. In order to fill in a significant gap in the MOOC literature, I framed this research from an interpretive paradigm and used methods that align with qualitative inquiry. In this chapter, I first describe the research paradigm that initiated and gave direction to the study. I then present the research methods and introduce the study participants in detail. The limitations and ethics of the study are also discussed.

## Research Paradigm

This dissertation is an interpretive case study through the lens of hermeneutics (Lincoln & Guba, 1985; Tracy, 2013). Gadamer (1965) explains that hermeneutics is based on the principle that "we must understand the whole in terms of the detail and the detail in terms of the whole" (p. 117). Thus, understanding is an iterative and "circular" process (p. 117). Gadamer (1965) further notes that "the discovery of the true meaning of a text or a work of art is never finished" because, by nature, meaning making is a historical act and personal (p. 124). The researcher's task in this process is then to produce a coherent and harmonious account of the text under investigation (p. 117). Similarly, Taylor (1971) notes,

> Interpretation, in the sense of relevant to hermeneutics, is an attempt to make clear, to make sense of an object of study. This object must,

> therefore, be a text or a text-analogue, which in some way is confused, incomplete, cloudy, seemingly contradictory - in one way or another, unclear. The interpretation aims to bring to light an underlying coherence, or sense. (p. 153)

Thus, I treated my data, which consists of case study notes, interviews, participant blogs, course documents and artifacts, as texts "that can be read, interpreted, deconstructed, and analyzed" (Tracy, 2013, p. 43). During the data analysis, I paid particular attention to (a) the context in which the course emerged, (b) the context of open participants' online activities, and (c) my own subjectivity in my interpretation of the text. Furthermore, aligning with the hermeneutical approach to interpretation, I focused primarily on meanings rather than frequencies in the data and sought a holistic understanding of open participants' experiences in the course in order to "produce a reading of the text that fits all important details into a consistent, coherent message" (Diesing, 1992, p. 110), which is presented in this study's findings as thematic categorizations that are connected with one another.

## Methods

### Research Design

I followed the naturalistic inquiry steps as suggested by Lincoln and Guba (1985) in the case study design. The research process began in the natural setting of the online course. I observed and participated in the class activities to make sense of the unfolding course in June and July, 2014. These unstructured observations and my reflections on them naturally led me to an emergent design (the research focus and questions were established over time). The majority of data collection occurred between January 2015 and July 2015. I began reviewing selected open participants' blogs in January 2015. Interviews with open participants were held between February and April 2015 to contextualize and critically reflect on notes from the preliminary data analysis/review. Thematic analysis began in July 2015 and continued until I finalized an idiographic case study description in January 2016.

**Sampling Strategy.** A “purposive sampling” technique is used in this study (Lincoln & Guba, 1985) (see Figure 8) to narrow down the scope of the research. The starting point to identify possible open participants to include in the study was the syndicated blogs on the course site. I used the following criteria for inclusion:

1. The open participant is not somebody who is involved in the design of the course and/or somebody formally affiliated with the institution. (This criteria enabled me to focus my attention to the participants who joined the course for intrinsic reasons.)

2. The open participant’s blog is still accessible at the time of data collection.

3. Within the blog, there is at least one blog post showing a connection to the course. This connection could be in the blog post content, title, or the metadata used, such as blog post categories or tags.

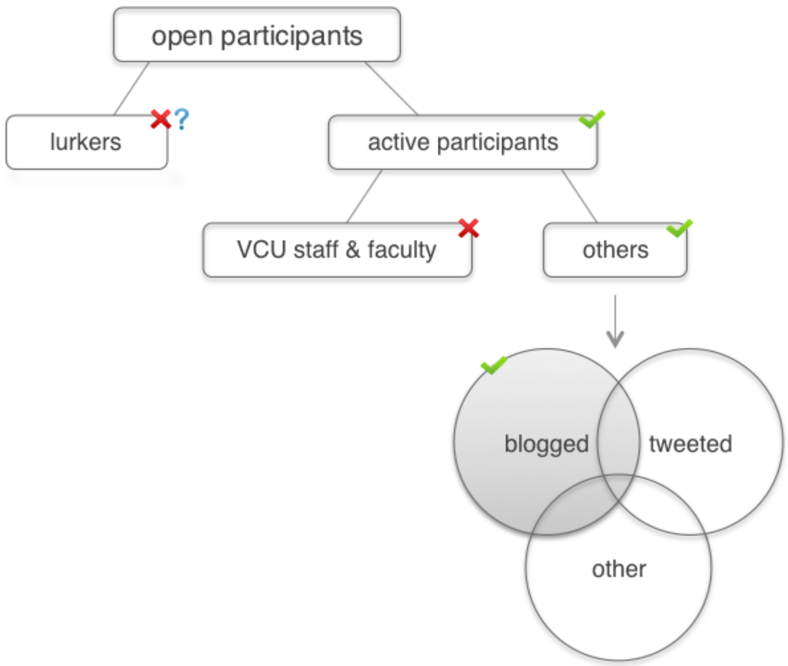



*Figure 8*. Research focus is on open participants who had syndicated their blogs on thoughtvectors.net before the research study started. These participants were active at least once during in the course.

**Case selection.** Each open participant is a case in this study. In January 2015 (six months after the course was officially over), there were 30 open participant blogs on the course hub (thoughtvectors.net). First, I copied to a spreadsheet the list of open participants that was available on the main course site (see Figure 7). I then examined each blog by taking notes on the purpose of the blog and the nature of blog post content. I eliminated 12 of those blogs after the initial sampling. I then identified 6 open participants (Carol, Cindy, Mariana, Michael, Open Participant A, and Open Participant B) with intriguing patterns of course involvement. I paid particular attention to capturing a broad range of participant profiles during this process. For example, Carol was one of the most active open participants in the course in terms of blogging. Open Participant B, on the other hand, had only one entry related to the course. Michael was the only participant who posted a detailed inquiry project. I added Melanie to the study shortly after the sampling due to the reflective nature of her blog posts.

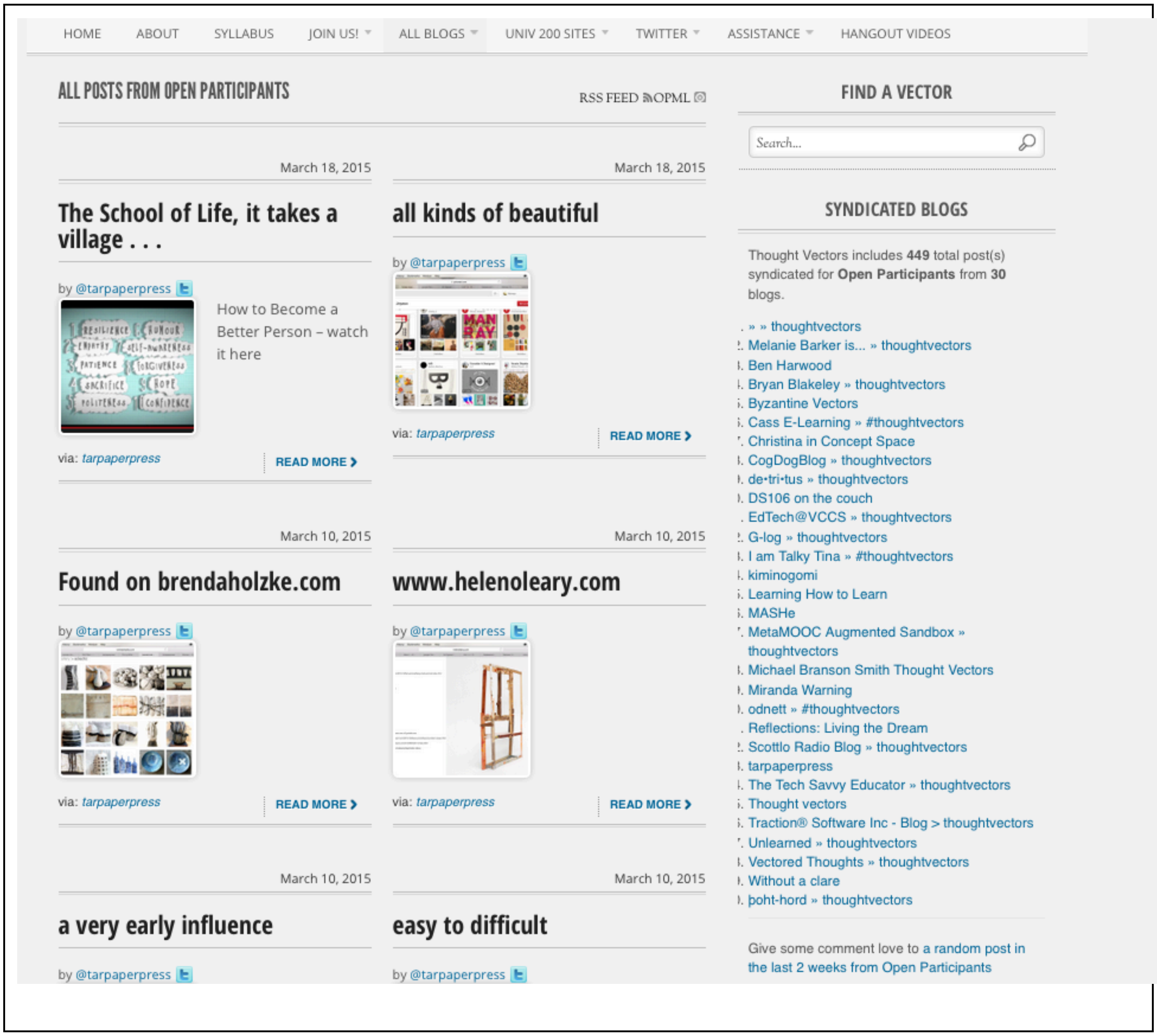



*Figure 7*. On the right-hand side of the website, the syndicated open participant blogs on thoughtvectors.net are featured.

As I explain in the section *Ethics,* the IRB approval for this dissertation study allowed me to examine publicly available content (e.g., a blog post) without receiving permission from their owners/authors. However, in order to be transparent about the purposes and processes of this dissertation study and to receive consent for the interviews, I contacted all the selected open participants either via Twitter, their blogs, or e-mail, depending on the contact information that was available to me and my relationship to them (I did not know any of the open participants prior to this research; however, I began following some open participants on Twitter during the live course in June and July 2014).

Carol, Cindy, Mariana, Melanie, and Open Participant A responded to my invitations for the interviews positively. However, Open Participant A dropped the study soon after he agreed for an interview due to personal reasons. Michael and Open Participant B did not respond to my attempts to contact them. Because Open Participant B's blog had very limited content, I decided to eliminate this participant from the study. I continued the study with 5 open participants.

**Participants**

I examined data from, and in relation to, five open participants in *UNIV 200*, the open online course offered by the Virginia Commonwealth University (VCU). This was a general education course on research writing. The course was offered for credit to VCU students, but the majority of learning activities were opened up to the public and people were encouraged to join the course as open participants.

Four open participants (one male, four females) were located in the United States and one participant was in the United Kingdom at the time of data collection. Each open participant is introduced in detail below. All quotations in these introductions are taken from participant blogs, interviews, or personal communications with the researcher, unless otherwise noted. Michael's name is a pseudonym. All other names are real and used with permission from the participants.

**Carol.** In addition to an undergraduate double major in Math and Psychology and a second degree in Library and Information Sciences, Carol holds a Masters in Online Teaching (U.S.). At the time of data collection, Carol was interested in pursuing a PhD degree. Interestingly, she was "looking into her options to get a low-cost PhD" [interview] through Massive Open Online Courses.

Carol's blog was set up as a course blog for all the open online courses she participated in during the summer of 2014. Carol intended to use her blog as "a formative self-assessment to explore personal learning communities while creating conversations about MOOC best practices" [blog]. This blog was a space for Carol to think aloud and reflect on her learning experiences and share them with the wider education community.

Carol heard about the course on Twitter from participants of another MOOC: *BlendKit 2014* (a training course on developing and designing blended courses). In the interview, Carol mentioned that she "had absolutely no idea what [the] course was about when [she] signed up;" she "approached the course strictly to evaluate the online pedagogy" [blog]. Carol did not know the course designers or instructors either. But soon she was drawn to the course content and started connecting with the people involved in the course on a number of web-based platforms including blogs, Twitter and Diigo.

The inquiry areas she pursued in the course became a perfect opportunity for Carol to build on her existing skills on online teaching and connect the course content to her long-time passion of Early Childhood Education. Carol also explained in the interview that her role in the course was similar to "a teacher assistant," an “embedded librarian," or “possibly subject matter expert” because she was actively and strategically trying to "engage registered students" and help them make the most of their learning experience.

It was important to explore Carol’s involvement in the course because, despite a serious wrist injury that required special care and physical training for at least 6 hours a day, Carol was one of the most active open participants throughout the duration of the course. She posted 13 blog posts related to the course between June 8 and August 1, 2014.

**Cindy.** Cindy is the Director of Learning Technologies in the Division of Information Technology and Services at a university in the United States. She works almost exclusively with faculty in a variety of development capacities on projects intended to enrich and enhance teaching and learning with technology. She is also Co-Principal Investigator for a Department of Education Strengthening Institutions Grant which funded an active learning initiative on her campus that involves learning environment redesign. Cindy’s blog was a place for her to “capture her thoughts” and share instructional technology ideas with her colleagues at her institution and in the wider education community [interview].

Cindy heard about course through her personal network on Twitter, “possibly” from one of the course designers or course instructors [interview]. Cindy was familiar "with the course readings and some of the conversations around the readings" [interview] as previously she had attended an open online seminar designed by two of the course designers exploring similar concepts.

There were several reasons why Cindy wanted to join the course. First, the course was an opportunity for Cindy to see “how the designers/teachers would nurture the 'open' community alongside their 'for-credit' students” [interview]. Second, she “sincerely wanted to experience the guided inquiry process in the course as a full-on participant/learner” because her institution was planning on designing “a similar type of research inquiry based class" in the near future [interview]. Finally, Cindy shared similar educational visions with the course designers and wanted to “join the revolution [in online education] on the front lines” [blog] (the course vision is explained in detail in the section *Research Context*).

Cindy followed the course mostly on Twitter and posted 4 blog posts during the course, between June 9 and September 2, 2014. Although Cindy had a strong commitment to the course, she "faded away" [blog] and switched to a more passive mode of participation towards the middle of the course due to travel and time constraints. However, she "was still really curious to see what was going on the course and [she] still did follow, although [she] wasn't able to do the writing” [interview].

Exploring Cindy’s participation in the course was important because her reflective blogs posts revealed why she joined the course and her experience as a learner in rich details. It was particularly intriguing for me to explore, sometimes with Cindy, why she “faded away” in the course [blog].

**Mariana.** Mariana is a chartered research psychologist (U.K.) with a passion for open education and creativity. As an active open scholar, Mariana has numerous blogs reflecting the diversity and richness of her online presence. For example, she has a personal blog on open education (http://mdvfunes.com), a Tumblr site for an open online course about digital storytelling (*DS106*, http://ds106.us/), an open online course focused on digital storytelling (http://theds106shrink.tumblr.com/about), a website for storing audio and creating podcasts (http://colinpods.tumblr.com/), and a website to experiment with educational technologies (marianafun.es).

Mariana used the blog she set up for *DS106* for the course and posted 7 blog posts tagged as #thoughtvectors. In our conversations, Mariana mentioned that Tumblr was "emotionally [her] space" and that she hadn't used the site for "other hashtags" (a reference to the hashtag of the course on Twitter: #thoughtvectors). I also included in the data set for this study two posts Mariana published in her open education blog to contextualize Mariana's involvement in the course.

Mariana heard about the course through her personal network on Twitter. Exploring Mariana's involvement in the course was important because of her unique participation pattern and initial motives to join the course. Mariana was invited to the course by one of the course designers as a:

> "network Provocateur, or a wonder-guide, in essence someone who would keep interacting with the network but without an obvious role (teacher, writing specialist, librarian, etc.). A kind of blithe, benign spirit, an observer-participant with the particular assignment of prodding and

enticing the network of participants into ever-more-thoughtful-and-joyous engagement" (Campbell, 2014, as cited in Funes, 2014).

Mariana adopted this complex role willingly in the course, as it fitted well with her "strengths and wishes" [interview]. In a blog post, Mariana explains that she sees herself as a "human open educational resource" to those who need guidance and encouragement in open online spaces (Funes, 2014). During the interview, Mariana mentioned that this role was not limited to online contexts. As an educator, she is sensitive to learner experiences and always "watches what's going on and steps in when needed" to successfully scaffold learners.

Mariana indeed worked towards creating a positive and supportive environment for learners in the course, especially on Twitter, which made her a key figure in the #thoughtvectors network. Towards the end of the course, when students were finalizing their research projects, Mariana decided to take a step back and not to join the course as much as before due to time constraints.

**Melanie.** Melanie is a librarian at an independent high school in the US. She also teaches a seminar class "on the DIY/Maker movement, and the impact of that movement on individuals and communities" [blog]. Melanie's blog was a place for her to reflect on the "process of what it is to be a librarian" and "stay current in [her] field" [interview]. Like Mariana, Melanie was actively involved with same open online course focused on digital storytelling (*DS106*) and sometimes shared her creative work for this other course on her blog.

Melanie heard about *UNIV 200* on Twitter via the course designers and facilitators. The course was “really ... compelling to [her] as a librarian" [interview] because it dealt with research inquiry—a crucial aspect of her job as librarian. Thus, she decided to “follow along and do as much as [she] could” [interview].

Melanie mostly followed the course via the course hub (thoughtvectors.net) and also on Twitter. She published four blog posts between June 10 and 25, 2014. She mentioned in our conversations that her "involvement was pretty limited” and “wasn't what she wanted it to be.” Yet, “as an open participant outside of the VCU community," Melanie tried to "offer up feedback to students as much as [she] could” to support VCU students in their learning. Although she “was really intrigued by thoughtvectors,” she did not actively participate in the course after June 25 due to time constraints.

Melanie made an important contribution to the study because of the engaging and reflective nature of her posts related to the course.

**Michael.** At the time of data collection, Michael was an instructional technology resource teacher at a middle school in the United States. Michael’s blog was set up as “a place for [teachers at a middle school in the US] to share their collective experiences with technology” [blog]. The blog was highly developed at the time of data collection. The site had numerous resources including links to how-to documents on technology tools and links to detailed lesson plans and student work. It was evident in Michael’s blog that he strived to build a community-based repository on technology use for middle school teachers.

Michael had realistic goals at the beginning of the course (“I may not be able to complete every assignment, but I will try to keep up when I can” [blog]). He posted four blog posts during the first two weeks of the course, between June 10 and 19, 2014. Michael’s last project was his inquiry project, which was framed as a potential "learning resource" for his students [blog]. Exploring Michael's involvement in the course was important because of the depth of his blog posts and his unique participation pattern: Michael was the only participant who completed his inquiry project and the first one to fade away.

I was not able to interview Michael despite repeated attempts to contact him. Thus, my understanding of the contextual variables in Michael’s participation is limited to the content of his blog posts only, which is a limitation I further discuss in the section *Ethics*.

**Data Sources and Collection**

There were multiple data sources in this study (see Table 2). There were three primary data sources in this study: (1) participant blogs, (2) semi-structured interviews with four open participants, and (3) a case study journal with “analytic sides” (brief reflective notes) and “memos” (more developed texts for the purpose of self-reflexivity and transparency) (Tracy, 2013, p. 196). Secondary data sources included (1) participant observations, (2) course documents and artifacts (e.g. the syllabus, videos), and (3) the course Twitter feed. The majority of data were collected between January and July 2015. I also included in the study notes from personal communications (during the member checks) in November 2015.

Table 2
*Data Collection Sources and Purpose.*

| **Researcher Purpose** | **Data Source** | | | | |
|---|---|---|---|---|---|
| | Participant blog posts | Semi-structured interviews | Analytic sides & memos | Participant Observations<br><br>Course documents & artifacts | Course Twitter feed |
| Understand the course context | ✓ | ✓ | ✓ | ✓ | ✓ |
| Investigate open participants' experiences in the course | ✓ | ✓ | ✓ | | |
| Theoretical sampling | ✓ | ✓ | | | ✓ |
| As a reflective tool to shape the research | | | ✓ | | |
| Increase the trustworthiness of the research | | ✓ | ✓ | | |

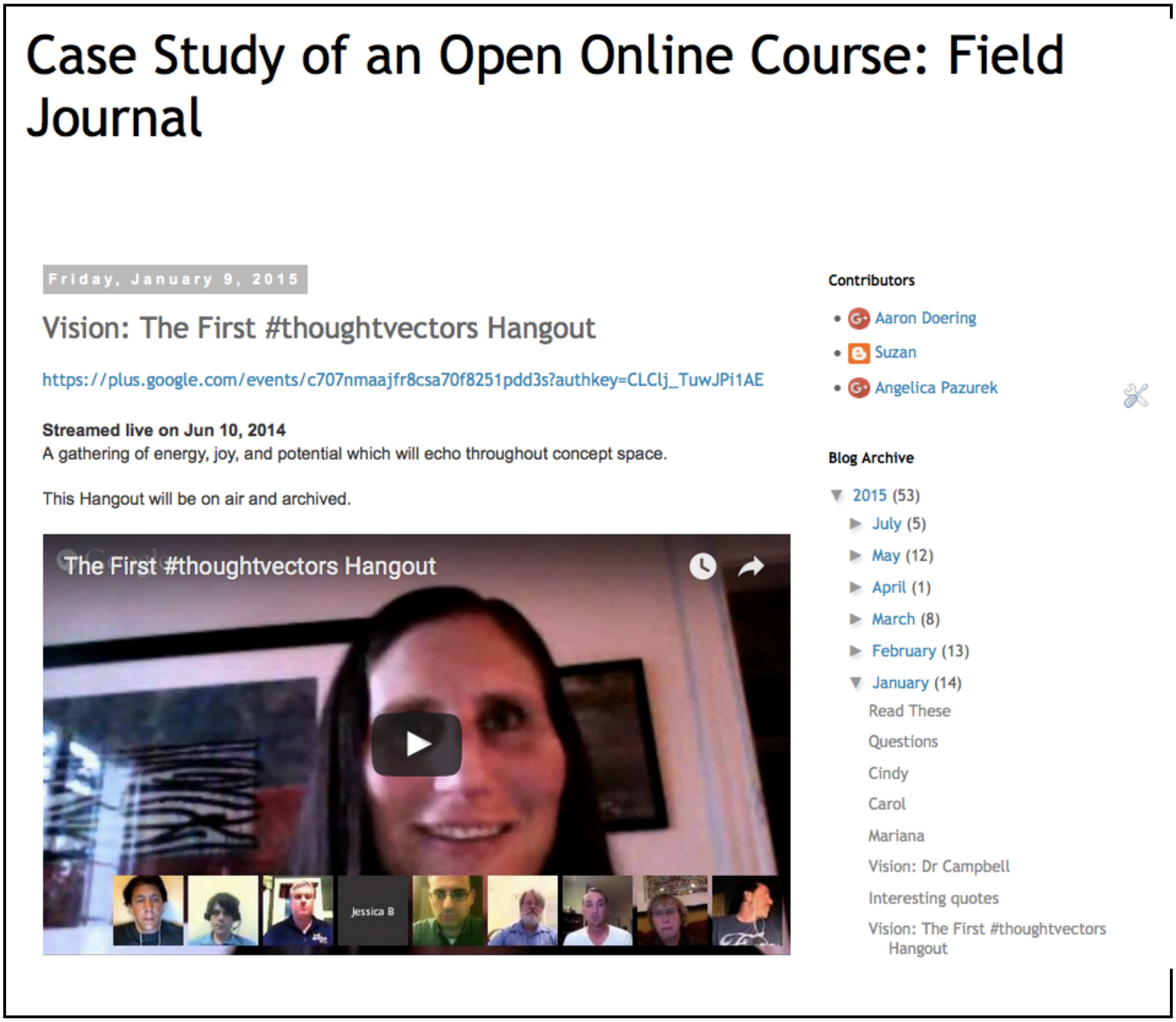
**Participant blogs.** I examined five open participants' blogs in detail in this dissertation study. First, I copied participants' blog posts into my case study journal for ease of analysis. I then read the blog posts many times while taking notes on their content. This process was highly reflective and iterative as I explain in the section *Data*

*Analysis* in this chapter. I collected data from participant blogs between January and March 2015.

**Semi-structured interviews.** I invited all selected participants to an interview to better understand their experiences in the course and the content of their blog posts. I sent out the invitations via Twitter, participant blogs, or e-mail depending on my relationship with them and the contact information available online. Four of the open participants accepted my invitation and agreed to have an hour long interview, which were held between February and April 2015. I conducted the interviews online via Google Hangout Air. The interviews were recorded and archived on YouTube as private videos. I transcribed and annotated the interviews in May 2015.

Although one open participant did not respond to my invitation to an interview, I decided to include this person's blog in the study because of his distinct participation pattern. However, this decision raised some important ethical questions in researching MOOCs, which are discussed in detail in the section *Ethics*.

**The case study journal (analytic sides and memos).** I started my case study journal, which was a private blog, in January 2015 (see Figure 9). By the end of July 2015, I had 53 pages in my journal (see Figure 10). Five of those were the cases I created for each open participant (see Figure 11).



# Case Study of an Open Online Course: Field Journal

Friday, January 9, 2015

## Vision: The First #thoughtvectors Hangout

https://plus.google.com/events/c707nmaajfr8csa70f8251pdd3s?authkey=CLClj_TuwJPi1AE

**Streamed live on Jun 10, 2014**
A gathering of energy, joy, and potential which will echo throughout concept space.

This Hangout will be on air and archived.

The First #thoughtvectors Hangout

Jessica B

**Contributors**

- Aaron Doering
- Suzan
- Angelica Pazurek

**Blog Archive**

- 2015 (53)
  - July (5)
  - May (12)
  - April (1)
  - March (8)
  - February (13)
  - January (14)
    - Read These
    - Questions
    - Cindy
    - Carol
    - Mariana
    - Vision: Dr Campbell
    - Interesting quotes
    - Vision: The First #thoughtvectors Hangout

*Figure 9*. Sample page from the researcher's case study journal.

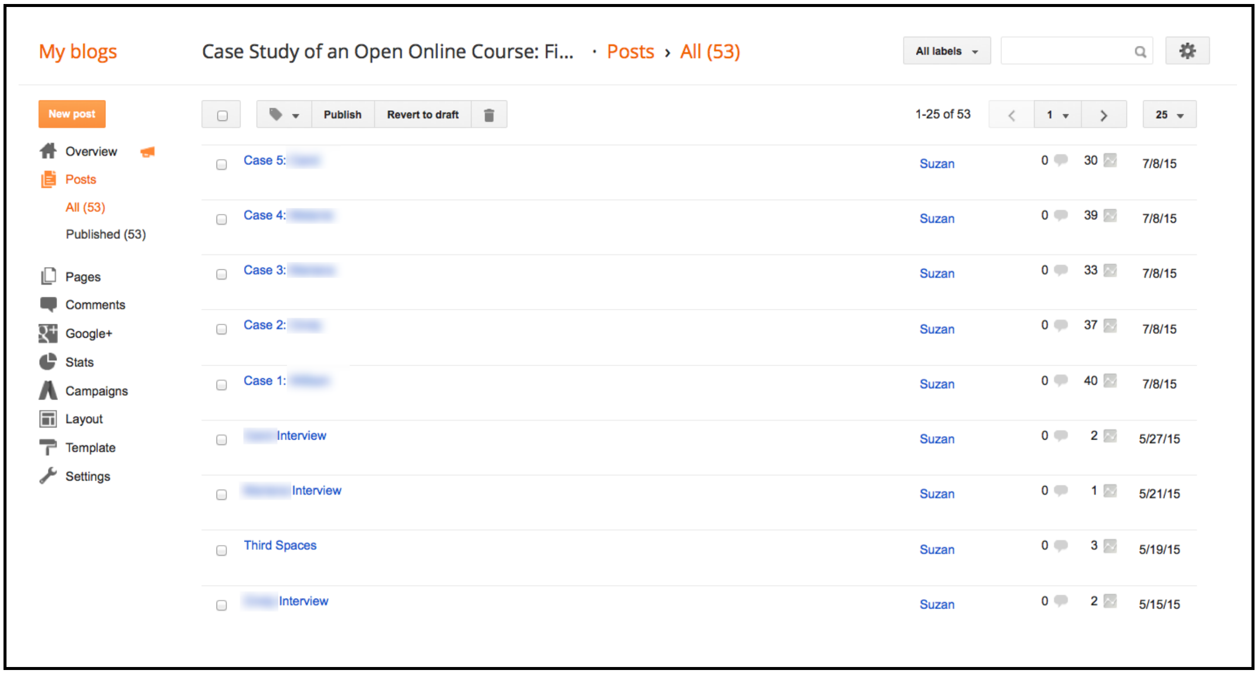



*Figure 10*. Editing view of the researcher's case study journal.

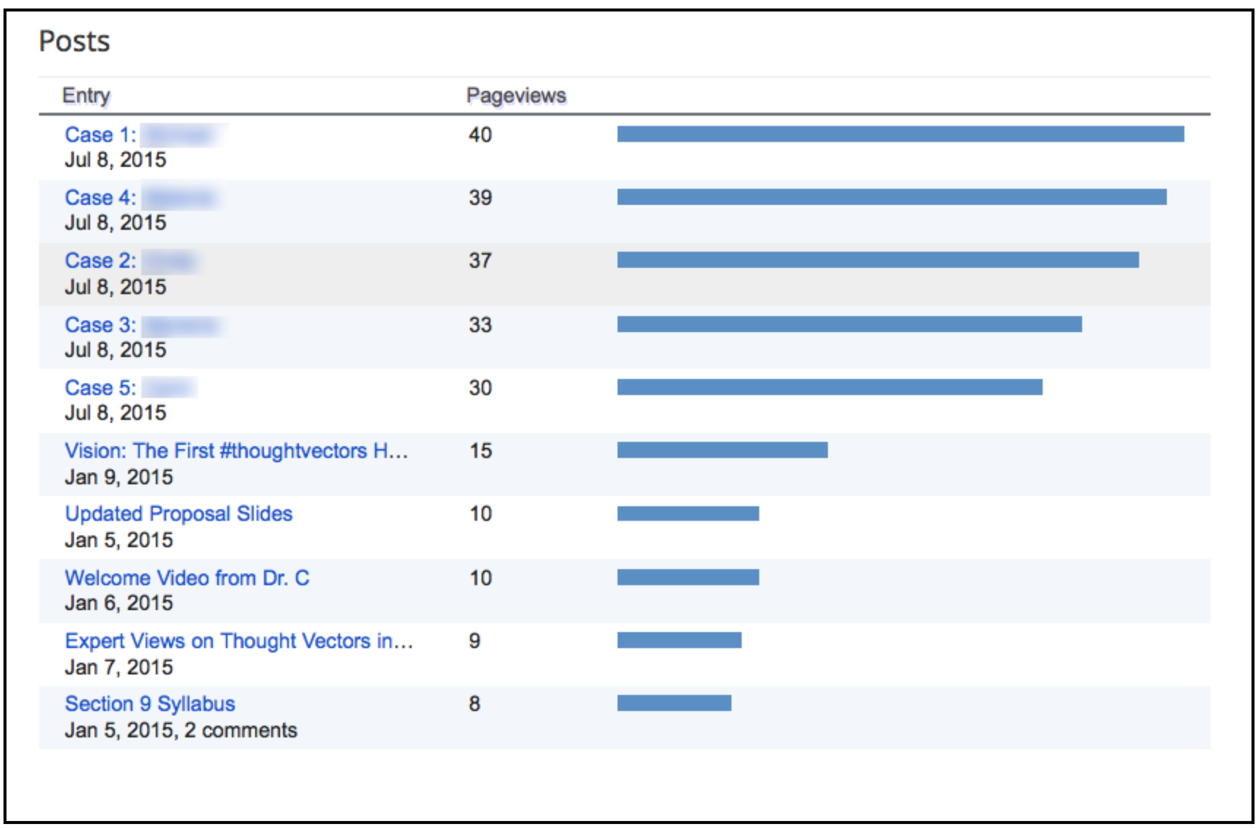


*Figure 11*. The most visited posts in the case study journal were the “cases.” Note: Page view counts do not include the page views for editing purposes.

My case study journal became a space for me to reflect on the data and the research process in general. My reflections could be categorized as analytic sides (brief reflective notes) and memos (more developed texts for the purpose of self-reflexivity and transparency). I provide an example for each type of reflection below.

Example for an analytic side (in response to a participant’s blog post):

> *This is the first time I feel like I'm hearing [this open participant’s] voice. It sounds like [the open participant] just needed some prompts to engage more in reflective writing. And this is the first time [this person] is directly responding to an assignment. Follow this thread: Do the class assignments prompt [this person] to write more about [himself/herself], which in turn brings [his/her] authentic identity into the class?*

Example for an analytic memo:

> *I'm excited about the directions the research is going into. I've been thinking about 3 things lately, each one resulting from the study of a different person:*
>
> *The psychology of openness: For many people participating in an open environment has its own challenges. People start feeling comfortable gradually as they continue participating online and build relationships, which seems to be the key for open scholarship. Our connections with other people is a significant factor in how we feel about being open. This is*

*something I will definitely explore with all the people I interview and within the participant posts.*

*Tagging as organizing learning: A traditional class, a typical class, is usually divided into modular and weekly sections. When students are given the opportunity to create a learning space, the way they organize learning becomes very diverse, I guess reflecting a little bit of their personalities and histories. This is something I'd like to explore as I move forward with analyzing the blog post contents.*

*The diversity (and unpredictability) of open participation: I interviewed two open participants and I'm hoping to interview two more within the next few months. So far, I've observed that the knowledge open participants produced is more diverse than for-credit students. They don't act in a prescribed way they diverge [from the formal course]. So each open participant contributes to the course community in a different way. The communities of practice we talk about is not well defined when we have an opportunity of learning that is not tied to a predefined structure, or that doesn't have to follow a formal learning path. I need to explore this concept in depth, my ideas aren't well developed yet.* (February, 2015)

**Participant observations.** I participated in UNIV 200 in June and July 2014 and casually observed the course activities. I did not do any systematic data collection but I was taking notes and posting public blog posts. This process informed the Context and the Conclusion.

**Course documents and artifacts.** I examined the course syllabus, and transcribed and annotated three videos that shed light on the course vision: a welcome video posted in one section of the course (Campbell, 2014a), the first online course meeting (Becker at al., 2014b), and a video explaining the course catchphrase *thought vectors in concept space* (Stout, 2014). I also read instructor and learner blogs (including for-credit learners' blogs) extensively during the course (June-July 2014) and after to get a sense of instructor and learner experiences in the course in general and to better understand the course context.

**Course Twitter feed.** Throughout the live course, I followed the course Twitter feed closely and noted Tweets that captured my interest. Also during the data collection, I compiled all the participant tweets published with the course hashtag (#thoughtvectors.net) and copied them to my case study journal using the social media data collection tool Topsy (the tool is no longer available as of December 2015) (for an example, see Figure 12). I used these documentations for "theoretical sampling," which is defined by Tracy (2013) as a method to "fill-in the blanks and the weak spots of the emerging" picture during data analysis (p. 202).

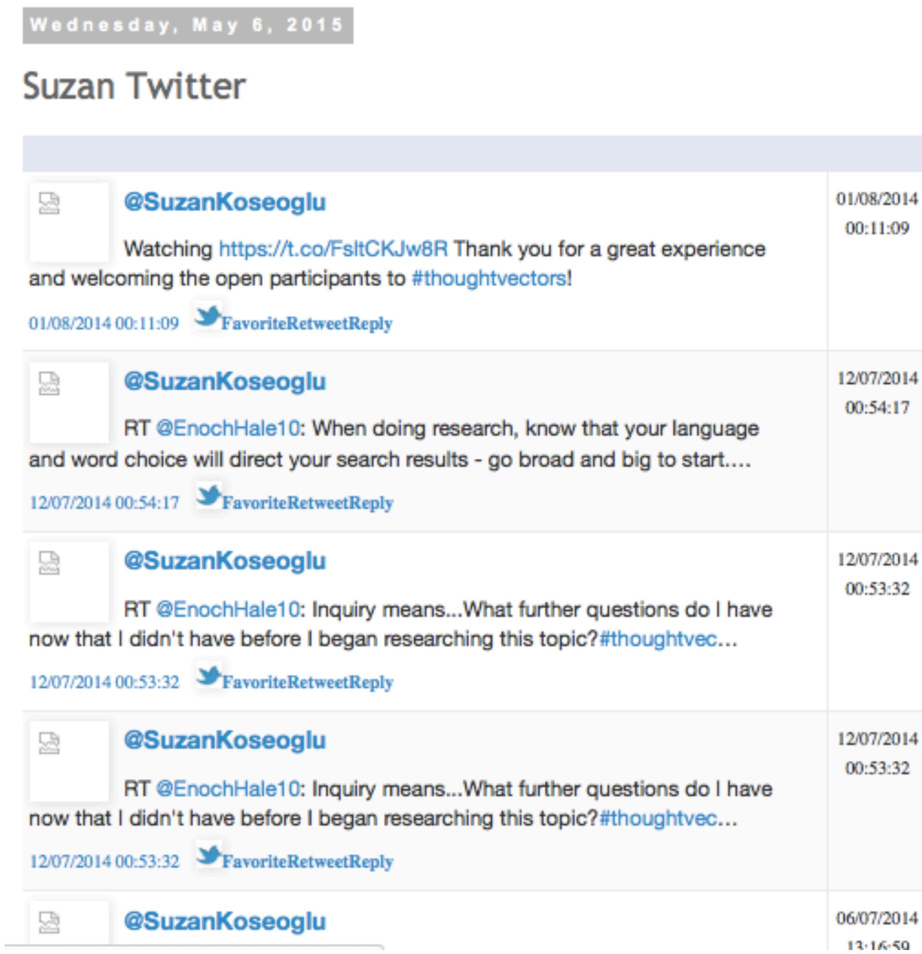



*Figure 12*. The Twitter feed of the researcher using the course hashtag #thoughtvectors. Compiled from Twitter by Topsy (the tool is no longer available as of December 2015).

**Data Analysis**

Aligning with the philosophy of hermeneutic interpretation, an iterative data analysis method is employed in this study (Tracy, 2013). I began the analysis after the class was officially over, in January 2015, by examining the selected group of open participants' blogs. I first identified all the blog posts related to the course and copied them to my case study journal. I included all the media and hyperlinks in this data.

I then read all the posts to design interview questions and/or identify areas of discussion for each participant (approximately between 1,600-10,000 words for each participant). I noted these drafted questions in my case study journal. This process was helpful for me to have an overall understanding of open participants' experiences in the course. For example, a comment I read on Melanie's blog helped me to develop an interview question for Melanie:

> Melanie: *As I look at the screenshots, I sing in my headspace Rockwell's "Somebody's Watching Me." This sharing of browser histories is an intimate act. We're just getting to know each other.*
>
> *Perhaps sharing one's browser history should be required on a second date. Maybe even the first date. The browser history is the new book shelf. You judge people by what's on their book shelf, right?*
>
> Suzan's interview question: *You mention in your post "Show me your browser history, and I'll show you mine" that the sharing of browser histories is an intimate act. Could you tell me a little bit about what you mean by this comment?*

I started the thematic analysis in July 2015. I first created portfolios for each participant by combining data from the interviews and blog posts on the same document in my case study journal for ease of analysis. This approach allowed me to easily search the content using keywords and move back and forth between different cases. The next step in the analysis was to gain a better understanding of activity patterns within and across participants. Because of the complexity of my data sources (for example, a series of blog posts with embedded video files and hyperlinks), I analyzed the data directly in my case study journal. I also used simple text documents, spreadsheets and other tools (e.g., ABCya.com) where needed to further explore the data.

For each participant's portfolio, I read all the posts and noted any interesting patterns or areas I wanted to explore further by taking notes in my case study journal. For example, I examined when and how often open participants blogged, the metadata (e.g., blog post categories and tags) they created for their posts, and their intended audience. At the same time, I open coded the blog posts and interviews as I was reading them to help me construct ideas for/beginnings of themes. For example, an open code in Melanie's case was *Course Vision*:

> Melanie: *I have to say that I'm really surprised by how easy it is to throw out an idea when it's masquerading as a thought vector. Idea. Opinion. Thought. These are things loaded with the weight of suggestions. "Thought vector." Totally liberating. Also, Jenny Stout's permission to put the crazy, half-baked ideas in concept space is also a gift.*
>
> Suzan: *Could this be one of the reasons why open participants stayed in the course? By explicitly talking about "thought vectors" we acknowledge the fact that ideas are not always refined, concrete, or even good. How does this interaction with the content of the course shape the way we go about the course? Our interactions with others, the way we perceive others' reactions to our work, the way we give meaning to our experience? Did the*

*focus of the course make open participation easier for Melanie? [COURSE VISION: IMPACT ON THE LEARNER]*

Another example of an open code is *Course Spirit* from Cindy's case:

> Cindy (blog post comment)*: Oh, another observation about the rhythm and 'flavor' of the course so far.*
>
> Suzan*: Interesting, Cindy mentions the rhythm and flavor of the course. I find this similar to what Degree of Freedom refers to as Course Spirit. A subjective experience, emotional. I'm going to code this as course spirit for now but needs elaboration. Also reminds me of Fantic Space by Ted Nelson. [COURSE SPIRIT]*

It is important to note here that I did not attempt to categorize the open codes through axial coding because, aligning with the hermeneutic tradition, I found myself constantly going back to the data and interpreting content from more informed or different perspectives. Although I refined the open codes, I did not want to eliminate any of the seemingly irrelevant or redundant codes through axial coding—open codes became roadmaps for me to make sense of the data. I did not count the frequency of the open codes either; rather, I asked what the codes represented and how they related to one another within and across participant cases.

One strategy I used to make meaning of the data was to take a holistic approach (I looked at the big picture instead of breaking the data into smaller units such as open codes) and ask: What is happening here? Why am I observing this? This reflective and critical attitude helped me to build typologies (Tracy, 2013) and themes in response to my research questions. For example, when I was examining the course retrospectively, I realized that it was challenging to build a coherent picture of the course because each learner blog was organized differently. I imagined these blogs were like archaeological sites: I was digging to find out what the course was about but there wasn't a single course narrative to be found (at this point, I abandoned using *communities of practice* as a theoretical framework for the study). I then asked what markers in participant blogs made me think about blogs as archeological sites. In response to this consideration, I identified three themes that were prominent in the data: *learner-driven decisions*, *mature online presence*, and *authentic identities*. I then refined the typology as "open participants created unique course histories through their blogs." I further refined the theme *mature online presence* as *mature but evolving online presence* when I noticed the shifting nature of presence in the data I was analyzing. Tracy (2013) notes that "qualitative researchers do not reserve the writing for the end of the project, using it as a way to reflect on their already discovered results" (p. 25). Rather, writing is part of the analytic process: researchers "find meaning" through writing (p. 275). Thus, identifying themes and typologies was an iterative and reflective process in which I revisited the data many times and connected the themes to the wider literature and my evolving understanding of the context through writing. This process was not complete until I finalized an idiographic case study description.

The participant interviews were used to contextualize participants' involvement in the course and to better understand the emerging patterns in the data analysis. Sometimes I used additional sources during this stage for "theoretical sampling," that is, to "fill-in the blanks and the weak spots of the emerging” picture (Tracy, 2013, p. 202). For example, on one occasion, after almost a year after the course was over, one participant posted a detailed reflective blog post on the impact of the course on her teaching. I decided to include this post in the study because it clearly demonstrated the impact of the course on this participant’s professional practice.

**Trustworthiness of the Research**

Several measures were used to increase the trustworthiness of the research, self-reflexivity, thick description, and member checks.

**Self-reflexivity**. Tracy (2013) describes self-reflexivity as "an honest and authentic awareness of one's own identity and research approach, and attitude of respect for participants, audience members, and other research stakeholders” (p. 233). Self-reflexivity calls for a need to engage in critical thinking throughout the research process: reflecting on our biases and and world views and questioning our assumptions and findings in order to balance our subjective experience with those of our research participants. Self-reflexivity is also needed to fine tune the methods used in the research. For example, I made a conscious effort to better respond to open participants’ remarks during interviews and personal communications after reflecting on my first interview in the study:

> *I again switch to a different topic by talking about my own experiences in response to [the open participant’s] comments. I was doing that so that my interviewee would feel more comfortable talking with me, but as I'm watching the interview again I realize that I should have asked more*

*follow-up questions and talk less about my experiences and focus more on her reflections. My inexperience in interviewing limited the scope and depth of the interview*. [Case study journal]

Blogging was also helpful for me to achieve self-reflexivity in this study and build relationships with people who were interested in the issues I was exploring. Sometimes study participants engaged with me on my blog or disseminated my posts to their personal learning networks via Twitter. I had two blogs: a private blog which held all the case study notes including analytic sides and memos, and a more refined public blog which made the research process transparent to others (I migrated from Blogger to Wordpress in May 2015) (see Figures 13 and 14). My public blog posts were particularly helpful because I was able to refine my thoughts and make connections among different concepts through the lens of relevant literature. For example, in a public blog post (Koseoglu, 2015) I wrote:

> *I'm doing research on open participants' experiences in a connected open online course. At first, I thought I could examine their activities through a communities of practice framework. I would look at how open participants went about research writing, the inquiry process. I would examine interactions among participants, find out about common norms, language, the type of knowledge that they produce as a community through shared artifacts. It soon became apparent though, what I was observing didn't resemble a typical community of practice where "members share a concern or a passion for something they do and learn how to do it better*

*as they interact regularly." I wasn't observing shared practice-other than blogging about issues related to education, which I think is too general to be defined as shared practice. Open participation was so diverse and rich that I had to take a step back and re-think how I might capture open participants' involvement in the course.*

*...*

*So am I observing a community here in the first place? I think, yes, but I believe my context is unique because the course is built upon a strong foundation which encourages community building from within (for example, via faculty and staff blogs). There are multiple communities of practice operating on different levels (faculty, students, the VCU community in general). ... I'm struggling with the vocabulary here a little bit. I feel like there's a lot more that I want to capture than I outlined here, but I just don't have all frameworks in place yet. So I'll be reading and writing about third spaces, learning communities and networks a lot this summer to be able to tell a story that is robust and rigorous— something that will make sense from where I stand. ...*

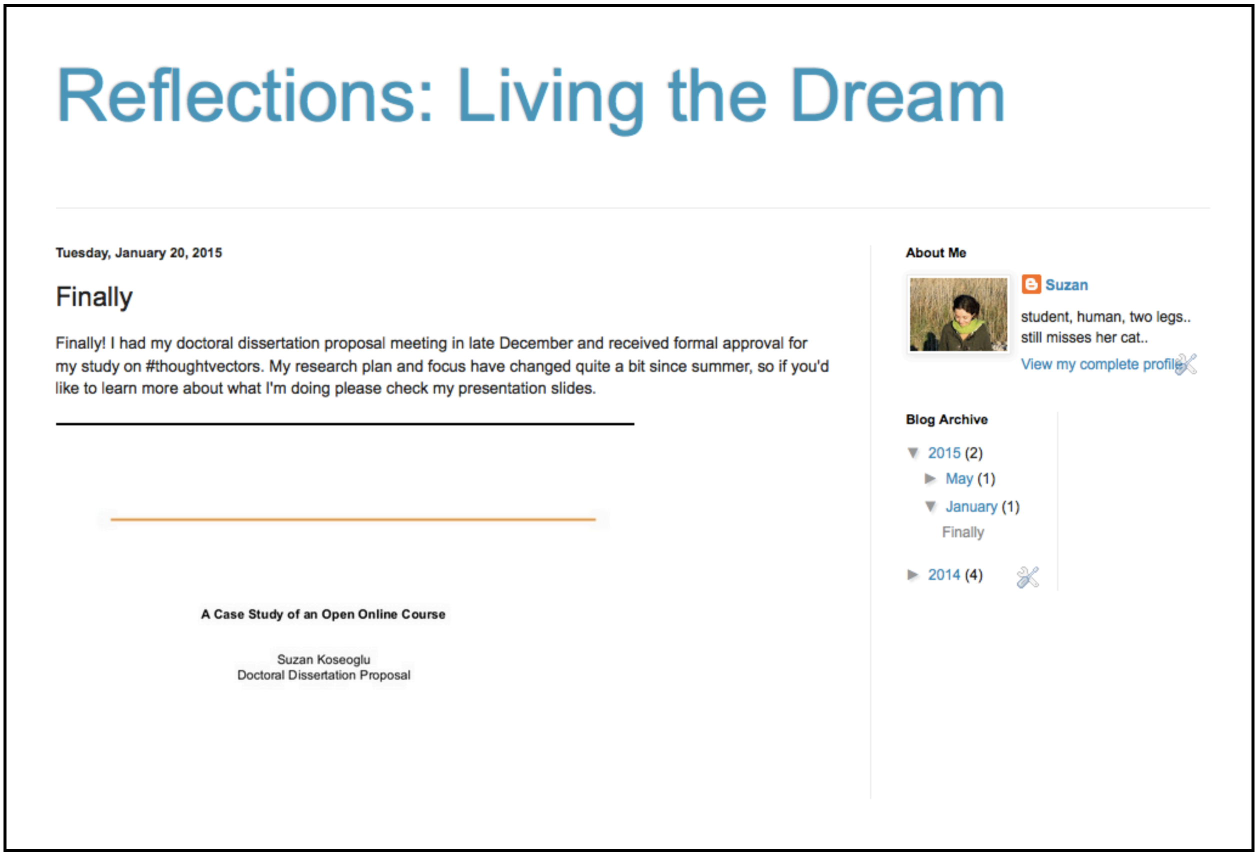



*Figure 13*. Sample page from the researcher's public blog on Blogger.

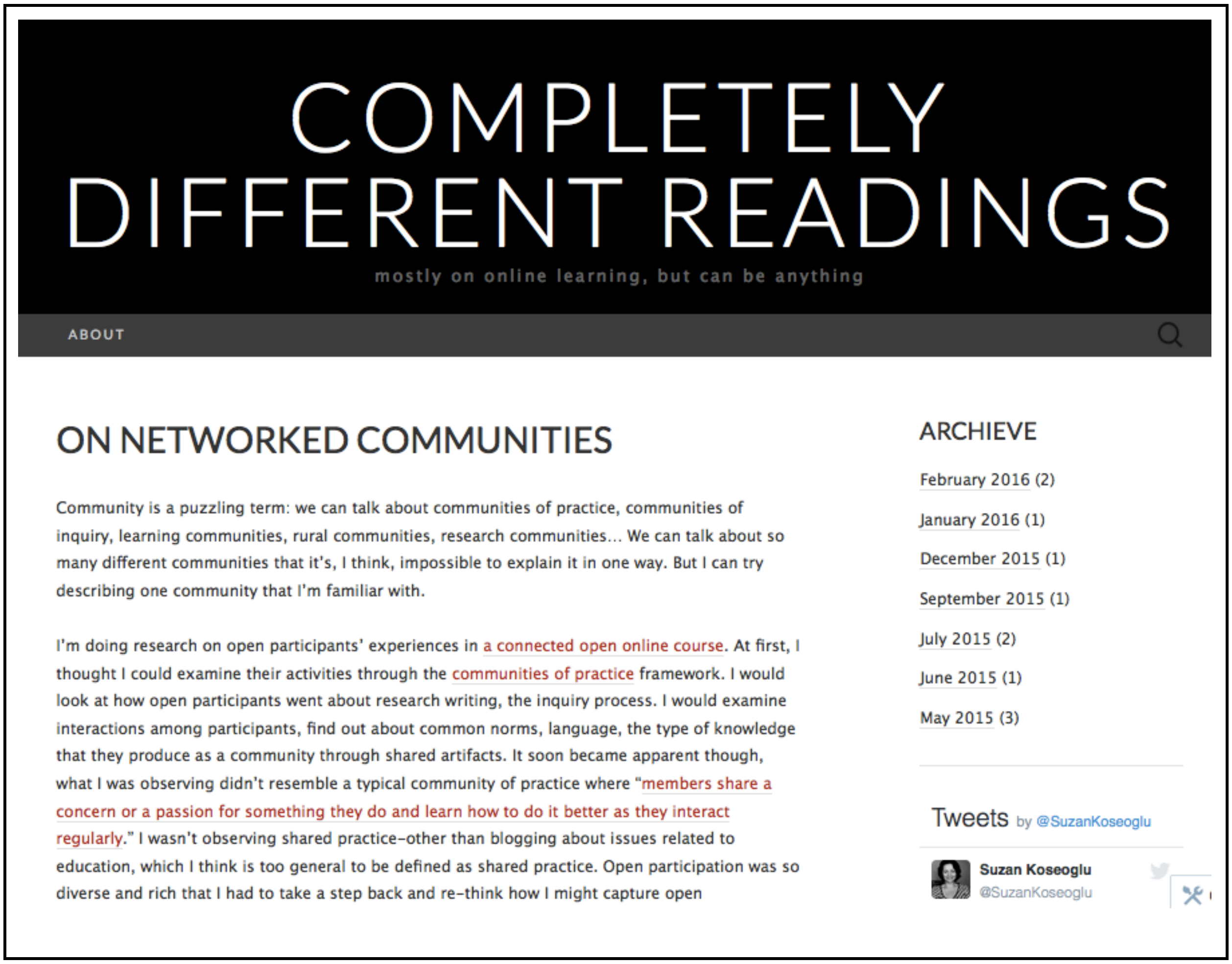



*Figure 14*. Sample page from the researcher's public blog on Wordpress.

**Thick description**. A general consensus in qualitative research is the need to provide rich contextual data to reveal the historicity of the findings (Tracy, 2013, p. 3-4). I spent prolonged time studying the course, which helped me to gather in-depth information and tacit knowledge about the history and the nature of the course and the context for open participation. I paid particular attention to these contextual details when I was producing the case study description.

**Member checks (informant feedback)**. Tracy (2010) describes member reflections as occasions that "allow for sharing and dialoguing with participants about the study's findings, providing opportunities for questions, critique, feedback, affirmation and even collaboration" (p. 844). Member checks are also important to achieve “verstehen” in our relationships with research participants (Tracy, 2013, p. 41; Dilthey, 1923, p. 105), which is described by Dilthey (1923) as “knowing an inner picture... through signs which are given from the outside” (p. 105). In the context of this research, this equates to establishing a strong emic perspective through multiple sources of data.

I shared sections of the case study description (*Participants* and *Findings*) with open participants (except Michael) during the analysis process to receive feedback multiple times using Google documents. This approach was very helpful to engage in a dialogue with open participants about their involvement in the study. On some occasions, participants modified the descriptive text I had written about them, making the process mutual and collaborative. I also shared a refined draft of the context with the course instructors and the course community via Twitter using the course hashtag (#thoughtvectors).

**Researcher's Role**

Tracy (2013) explains that in qualitative research “the researcher is the research instrument” (p. 25) as researchers are part of the social phenomena they observe. Thus, immersion in research context is not only desirable, it is vital for the integrity of qualitative research.

In order to orient myself in the research and understand the course context, I joined UNIV 200 as a participant observer in June 2014 with permission from the course instructors. I was also an open participant in the course as I regularly followed the course activities and occasionally interacted with students and instructors on their blogs and Twitter for non-research purposes.

I made my research goals and milestones transparent to the course participants through a public blog and tweets during the live course. I also took informal notes to reflect on my experiences. I mostly remained invisible in the environment after July 2014, as the official part of the course was over (the course remained open on the web).

**Ethics**

**IRB approval.** I received an IRB approval for the study in June 2014 (see Appendix B). A change in protocol request was accepted in December 2014 in order to waive the consent requirement for learners, as I was planning on examining publicly available data (e.g., blog posts, a YouTube video, etc.) only. A final change in protocol request was also accepted in January 2015, which then enabled me to interview the open participants.

**Informed consent.** I received consent for all interviews. However, despite my persistent attempts, I was not successful in making contact with one open participant, Michael, which raised some important ethical issues in researching open online courses.

The IRB approval for this dissertation study allowed me to examine publicly available content such as blog posts or tweets without receiving permission from their owners/authors. However, the informed consent process is vital for the integrity of any research using online data. I was not able to have an interview with Michael to further understand the context of his participation. More importantly, I was not able to have a conversation with him about the purposes of this research and encourage him to ask questions.

Thus, considering the “fundamental rights of human dignity... protection, safety, maximization of benefits and minimization of harms” (http://aoir.org/reports/ethics2.pdf), I paid particular attention to how I represented Michael in the study and grounded my arguments around his participation firmly in his publicly visible online activities. I also took specific measures to protect his privacy: I used a pseudonym, did not use any direct quotes from his blog or tweets, and removed from the study any information that might reveal his identity.

**Limitations**

Many times in my research, I experienced “the crisis of representation,” the notion that meaning-making is a relational act (Dilthey, 1923). Tracy (2013) notes that “all explanations are unstable and interrelational” (p. 45) because of the researcher’s subjective position. Indeed, as I visited the text repeatedly—both the raw data and the analysis text I was producing—my understanding of open participants’ context changed (for example, a reference to "revolution in education" or the meaning of creating a GIF animation). Thus, despite my efforts to provide a strong emic perspective, this ever-changing nature of meaning-making challenges the narrative of this research.

A further challenge that is relevant to the meaning making process lies in the structure of the course itself. As Ito (2014) notes, a connected course is "...not a funnel or even a community with coherent practices, but a hybrid network, more like a constellation that looks different based on where one stands and who one is." This statement has relevance to me as a researcher and an open participant: my position in the network (e.g., my connections, motives, identity, past experiences in my field, etc.) have no doubt impacted how I interpreted the network itself and others' participation in it. Thus, the transferability of my research argument should be evaluated critically in this relational context.

The participants in this study are not representative of all open participants in the study because the sampling was not random. In addition, a self-selection bias might have occurred in the study because all the participants who agreed for an interview were active members of the course community.

Furthermore, as I discuss further in *Ethics*, I was not able to conduct an interview with one of the open participants, Michael, which was a significant barrier to gain strong emic perspective about his involvement.

Finally, although I participated in the course as an open participant in June and July 2014, I was partly an outsider to the learning community as I did not complete course assignments on a daily basis and experience any direct teaching or guidance, which might have limited my contextual understanding of the course. Thus, the context of the study, despite my efforts to gain an insider perspective, should be interpreted as a text that I tell from my point of view, shaped by my own perceptions and experiences.

# Findings

In this chapter, I first discuss the conceptual frameworks that guided this dissertation study. More specifically, I discuss how I shifted from *communities of practice* to *third spaces of learning* as a conceptual framework. I then present three typologies that emerged through a thematic analysis of participants' blog posts: (1) *open participants created unique course histories through their blogs*, (2) *open participants did not follow a formal learning path*, (3) *instances of meaningful learning were visible at different times in the course and beyond*.

## Conceptual Framework

**Shift from community to authentic identity.** My initial intent was to analyze open participants' activities through the lens of the communities of practice framework (Lave & Wenger, 1991; Wenger, 1998) because of the heavy emphasis on community building in UNIV 200 and the networked nature of learner activities (e.g., blogging, tweeting).Wenger, McDermott, and Snyder (2002) explain that in a community of practice members might gravitate towards one another because they "share a concern, a set of problems, or a passion about a topic" (location 147). In doing so, people experience a sense of "togetherness" that unfolds over time (Wenger, White, & Smith, 2009, location 529). However, Wenger (2006) notes that not all groups are communities of practice. There needs to be at least three characteristics for us to successfully recognize a community of practice: (1) the community "has an identity defined by a shared domain of interest", (2) members "engage in joint activities and discussions, help each other, and share information", and (3) members "develop a shared repertoire of resources:

experiences, stories, tools, ways of addressing a recurring problem" through ongoing interaction (p. 1-2). Aligning with the theoretical framing of communities of practice, I took the perspective that open participants' learning would reveal itself in the engagement with the activities of the course community. I planned to examine the learning activities and interactions among participants in order to identify the nature of a) the shared domain of interest (e.g., research writing, the inquiry process), b) shared practice (e.g., the artifacts, the knowledge community produces), and c) the norms, language and history of the community.

However, soon after I started examining open participants' blogs, I observed that open participants did not form a typical community of practice. Although it can be argued that they all deepened their knowledge in an area of concern, the sharedness of the issues is debatable. In addition, the meaning of *interaction* in this context was complex, because it involved interactions of open participants with (a) the course content, (b) self through reflective thinking, (c) anyone involved in the course, and (d) anyone who had access to their public learning activities (people who were not necessarily involved in the course). As I demonstrate in the thematic analysis, I argue that each open participant created a "different narrative" (Ito, 2014) in the course through a mix of formal and informal practice. These narratives align with the notion of *third learning spaces*—spaces where informal skills, networks, and identities are welcomed into formal learning and create opportunities for authentic interaction and knowledge building (Cronin, 2014; Gutierrez, Rymes, & Larson, 1995). As a result, I abandoned using communities of practice as a framework and examined the data through the lens of third spaces of learning.

**Third spaces of learning**. Gutierrez, Rymes, and Larson (1995), based on their ethnographic research in K-12 classrooms, describe third learning spaces as social spaces where teacher and student "scripts" intersect for learning to occur in emergent ways (p. 445-446). Even if a classroom is heavily dominated by the teacher, there is room for these spaces to emerge because meaning making is a dialogic process. Here, dialogue includes the inner dialogue (Bakhtin, 1981, as cited in Gutierrez, Rymes, and Larson, 1995) of students in response to the classroom events, and it should be understood as how students make meaning of their learning experience in the social spaces of classrooms. Thus, students create counter scripts that potentially interrupt and shape the official discourse of learning. From this perspective, learning is a cultural practice that is tied to issues of power (e.g., teacher's authority or students' lack of authority) and identity (e.g., how students define themselves in relation to other students and the teacher).

Cronin (2014) argues that open online courses can be considered third spaces of learning because they are neither entirely formal nor informal. C. Cronin further that in higher education there is a tendency to "shut the door to students' informal identities;" but, in fact, we need to "invite the informality" to the formal learning experience (personal communication, May 19, 2015). Thus, the third space is more than a bridge that connects formal with the informal, "it is an acknowledgement of individual identities, experiences, backgrounds" (personal communication, May 19, 2015).

In my study, I conceptualize participant blogs as "social spaces" created by a multitude of interactions (e.g., with content and people) through technology. It is in these spaces, the spaces of blogs, that I identified and examined the third spaces of learning.

This does not mean that third learning spaces within UNIV 200 occurred only through blogs. My observation is that these spaces were also visible in other platforms such as Diigo or Twitter. However, detailed investigation into the other platforms open participants used is beyond the scope of this study.

Next, I present a thematic analysis of blog posts situated within the broader context of the course and open participant activities.

**Thematic Analysis**

Three typologies point to the emergence of third learning spaces in the course based on a thematic analysis of research data (summarized in Table 3). Each section of the table begins with a research question followed by a typology in response (each typology forms the basis of the next research question). I used exemplars in some sections to highlight the presented themes. All the quotes in this section are taken from participant blogs, interviews, and personal communications, unless noted otherwise. The quotes that belong to Michael are either paraphrased or modified to protect his privacy.

Table 3
*Summary of the Thematic Analysis of Research Data*

| **Research Question(s)** | **Typology** | **Themes** | **Indicators** |
|---|---|---|---|
| (Q1) What were some common themes across open participant blogs, if any? | (1)Open participants created unique course histories through their blogs. | -Learner-driven decisions.<br>-Mature but evolving online presence.<br>-Authentic identities. | Choices of blogging platforms, blog post content and metadata (e.g., tags, categories, publishing dates), remarks during the interviews. |
| If open participants created unique | (2)Open participants did not follow a | -Diverse entry and departure points. | Blog post content and metadata (e.g., tags, |

| | | | |
|---|---|---|---|
| course histories, then:<br><br>(Q2) What did their participation patterns look like? | formal learning path. | -Deadlines as suggestions.<br>-Re-framing assignments as blog posts.<br>-Diverse roles. | categories, publishing dates) and remarks during the interviews. |
| If open participants did not follow a formal learning path, then:<br><br>(Q3) What did their learning look like? | (3)Instances of meaningful learning were visible at different times in the course and beyond. | -Flow.<br>-Lingering effects.<br>-Connections to professional practice. | Blog post content, remarks during the interviews and personal communications. |

**(Q1) What were some common themes across open participant blogs, if any?**

**Typology 1:** Open participants created unique course histories through their blogs.

**Learner-driven decisions**. I observed that open participants organized their blogs (the platform, content, and metadata) according to what was meaningful and relevant for them. When blogging, each open participant made many decisions driven by their interests and prior-experience. For example, they decided when to publish their posts, chose blog post titles and archived their work through tagging and using existing or new blog post categories. These simple acts are significant when we consider the fact that open participants were simply responding to the events of the formal course in a way that made sense to them most. Thus, each blog was akin to a different historical site with various artifacts and signs of practice, which indicated the diversity in the ways open participants made meaning of their learning experience.

***Exemplar***. This theme is illustrated in Figure 15 by a word cloud showing the diversity of the tags open participants used for their posts (some of Michael's tags are abbreviated to protect his privacy). The word cloud shows that the most common tag participants used was thoughtvectors (or #thoughtvectors). It is interesting to note that none of the open participants used the official class title (UNIV 200) in any of their tags or categories.


*Figure 15*. Tag cloud illustrating the diversity of tags open participants used in their blog posts. All tags are included. Created by ABCya.com (http://www.abcya.com/word_clouds.htm).

**Mature but evolving online presence.** I observed that open participants' blogs were more than just "course blogs." These were spaces open participants had already inhabited for various purposes, as I noted in the section *Participants* in Chapter 4. The organizational structure and purpose of these blog spaces impacted the nature of open participation. In addition, the metadata open participants created (for example, tags and categories), choices of blogging platforms, and hyperlinks indicated that sometimes open participants' blog posts were intended for multiple audiences. It is interesting to note that all the participants I interviewed had a strong awareness of their digital footprints and had a history of participating in open and networked communities prior to participating in the course. Some participants also noted that they make strategic decisions to build and maintain their online presence.

***Exemplar 1***. The blog Mariana decided to synch with the course was *DS106 on the couch*— a Tumblr blog Mariana had been using for an open online course on digital storytelling (DS106, http://ds106.us/). When Mariana posted animated GIFs or other visuals on her blog in response to the class activities, she brought into the course her identity as the "DS106 shrink," as multimodality is a strong part of the DS106 narrative tradition (Funes, 2014). For example, consider Mariana's creative post in response to the assignment "*How does it feel when you think?*" (see Figure 16). This 15-second video captures the complexity of thinking and, through animated GIFs and music, illustrates how thought expands with connections. Note how through tagging and linking (the video is also available on Vimeo) Mariana creates a diversity in the imagined audience: those who are interested in UNIV 200 (tag: #thoughtvectors) and those are who interested in the editing program Mariana used (tag: #screenflow). An additional possible audience for this blog post is those who are involved with DS106.


*Figure 16*. Mariana's animated video in response to the assignment "*How does it feel when I think?*" Image used with permission from the author.

It is important to note here that Mariana's prior involvement with DS106 was highly influential for her to begin feeling comfortable in open online spaces, particularly on Twitter, and build her personal learning network, which eventually connected her to the course. Mariana said:

> *I started from a place where I said I would never use Twitter and there would be no way that you could pay me any amount of money for me to use Twitter. ... And I learned to use it and started to use it because I got involved with DS106, and it's an integral part of that course and so, but*

*one of the things I really value or appreciate about it is that I have been able to use it as a way of building community, as a way for actually getting to know people, like you and I talking now*. [Interview]

***Exemplar 2***. Prior to joining UNIV 200, Carol was deeply interested in "how to increase student engagement in online course development and instruction" which led her to set up a personal blog to document her experiences in open courses and create "conversations" around open education. In our interview, Carol mentioned that during her involvement in the open online course, *BlendKit2014* (https://blended.online.ucf.edu/blendkit-course/) she "connected with course participants in social media who led [her] to VCU MOOC #thoughtvectors." At the same time, Carol was enrolled in "edtechopen.com workshops for online instructors who were sharing best practices for student engagement using social media" and "was able to get feedback in edtechopen.com threaded discussions to evaluate [her] own MOOC experience as an open participant in UNIV200." Carol mentioned in the interview that the feedback she received in the forums supported the roles she had "already identified of *teacher assistant*, *embedded librarian*, or possibly *subject matter expert* in the course."

Thus, Carol had already formed a strong online presence before joining the course, which impacted the nature of her involvement in UNIV 200. Carol also was aware of the importance of having advanced digital literacies to successfully participate in the course. Consider, for example, Carol's remarks in her first blog, in response to the assignment "How does it feel when I think":

> *My first thought about [Thoughtvectors] is that I have sufficient skills to get started: WordPress, Twitter, Google+, Diigo. But I am intrigued by how the learning platform is integrated to optimize online discovery. One over-riding thought that I am ever-mindful is opportunity costs associated with how much time is spent following and responding to various threads. Because the possibilities are endless, I hope to discover critical clusters of credible content and lessen the feeling of being overwhelmed or missing something essential. This is where my professional learning community may help save time researching, reflecting, writing, and reviewing. Thinking out loud in threes, I consider 1. fan-base (audience), 2. format, and 3. function as facets of inquiry and argumentation. My thought for Goal #2 is to develop a systematic method to manage the push and pull of #ThoughtVector dynamic conversation threads while linking, tagging, and annotating relevant media for future use.*

The comment above shows that Carol had a high level of understanding of how to make the best of her learning experience and successfully contribute to others' learning in a networked community. However, this does not mean that Carol was comfortable working out in the open in every aspect. In our interview, Carol mentioned that "one of [her] goals for the course was to blog and get over the public shyness." Thus, Carol made an effort to be actively present in the course through blogging, tweeting, commenting, and curating resources for other learners; "plus people would know a little bit about [her] and how and why [she] was participating."

***Exemplar 3***. Cindy's blog was space for her to "share instructional technology ideas" with colleagues and also a personal space for self-reflection. Cindy had also been active on Twitter for some time before the course started and had successfully built a personal learning network. This learning network included some of the course designers and instructors, who were influential for Cindy to break some barriers in her open practices. In the interview, Cindy mentioned that she used to experience “performance anxiety” before blogging because she “[didn’t] like writing.” During the course even when “prompt[s]  compelled her to respond to an assignment,”  it wasn't easy for her to write in a way “for people to understand and consume.” One thing that helped her significantly was to stop thinking about an imagined audience when writing her blog posts:

> *One thing that was liberating a long time ago with that community of folks* ... [mentions some of the course designers/instructors] ... *the folks who met regularly on Twitter, the real mind broadening tool is that I stopped writing for other people and started writing for myself.*

This reflective attitude helped Cindy overcome the feeling that "my writing is not good enough, my thoughts are not well articulated enough, my references aren't extensive enough, my linking isn't thorough enough." Still, despite having extensive experience with engaging in open practices such as blogging or tweeting, similar to Carol, Cindy still experienced "shyness" as an open participant during the course. In her post, “How does it feel when I think,” Cindy says:

*Hmmm… I've been 'thinking' really hard about this….not really wanting to be one of the first to tackle the question publicly. (I'm listening now to @scottlo [another open participant] even as I write this. He was brave and put his 'thinking' out there. I'm noting his mention of his initial giddiness giving way to fear….Same here).*

Thus, although Cindy had a mature online presence in the course, this was not a completely developed presence. In contrast, it was evolving and shifting with ongoing practice.

**Authentic identities.** Blogging provided an opportunity for open participants to have an authentic presence in the course. Here I define authenticity as "having a sense that one is operating from a sense of self that is defined by oneself as opposed to being defined by other people's expectations" (Kreber, Klampfleitner, McCune, Bayne, & Knottenbelt, 2007, p. 39). Thus, open participants were not simply students; they were present in the environment in professional and personal ways (not to be confused by private as explained by Campbell [2013]; personal may refer to the unique characteristics that make us an individual). I particularly had a sense of the personal when participants were talking about themselves (for example, their past experiences, aspirations, and feelings) in their posts. It is important to note here the connection between authenticity and the reflective nature of blog posts, as I demonstrate in the following exemplars.

***Exemplar 1***. Melanie's identity as a library instructor was particularly visible in her final post, "Making time for inquiry: a #thoughtvectors post," where she made connections between library instruction and the reflective and inquiry based learning processes in the course. For example, in her post, Melanie says:

> *For a while I've been thinking about the library instruction that I do here at school. Most of it involves a 15-minute introduction to databases that students may find useful for a research project. The "instruction" was my absolute* ***least*** *favorite thing to do. I was bored. The kids were bored. Change was needed.*

Melanie then asks:

> *… how* ***DOES*** *one apply Constructivist approaches to library instruction, especially instruction that may be one 45-minute class period?*

We learn from Melanie's post that this question is not a new one; it is, in fact, a question she started asking herself a year ago after her involvement in a summer institute "designed for educators committed to creativity, collaboration and computing" (http://constructingmodernknowledge.com/). But with the inspiration of UNIV 200, Melanie is able to connect these prior questions with new and emerging ones:

> *My question is how do you get a disengaged student sitting in an English class that he/she may not want to be in (but has to take) to ask the above questions* [a reference to a set of inquiry questions posted by one of the course instructors as a guideline for students taking the course for credit] *about The Great Gatsby or Beowulf?*

Finally, Melanie addresses her own question:

*I kind of have an answer to my own question.  One of the many things I'm enjoying about #thoughtvectors is the time for reflection. Students reflect on readings in their nuggets. They explore associative trails. There are concept experiences where students put the theories into action. This time carved out for thoughtful, reflective, exploration is key to question asking. Even for the student who could give two s***s about Jane Austen.*

Thus, in her post, Melanie reveals some challenging aspects of her job (i.e., learner engagement, traditional approaches to library instruction) and makes important connections between her experiences in the course and her professional life. Melanie also argues that reflection is the key for meaningful student engagement (in our interview Melanie also included herself in the process), because unless students have the time to reflect on their experiences, they will not be able to ask new questions. And by asking a question they bring to surface something that interests them, which is essential for a meaningful learning experience. Also, aligning with the previous theme *mature online presence* note how Melanie created a diverse imagined audience by the categories (i.e., #thoughtvectors and librarianing) and tags (i. e., information literacy, inquiry, thoughtvectors, time) she used for this post.

***Exemplar 2***. In all of his posts, Michael clearly positioned himself as an educator and made connections between the course assignments and his personal and professional interests. For example, in one post Michael quotes a section from an assigned article and says:

> *Something about phrase "record of ideas" provoked my inner history teacher. As soon as I read this quote I couldn't help but analyze the essay from a historical perspective. There were a number of quotes within the article that could easily be applied to technology's role in preserving, teaching, and learning history.*

Later in his post Michael says:

> *Many classroom lessons and personal investigations have started on Wikipedia. And yet, instead of using this resource to its fullest potential and teaching our students to do the same, we frequently ignore it completely or tell students not to use it. That's why I designed this tutorial* [included here is the weblink for the tutorial] *for students couple of years ago, and try to model Wikipedia best practices when I'm teaching. Granted, these particular skills may not help our students pass the their exams but hopefully they will "allow him truly to encompass the great record and to grow in the wisdom of race experience"* [a reference to the assigned article for that week].

These comments reveal that Michael is not a typical student in the class: he is a professional with significant expertise and background on teaching with technology. His imagined audience is not necessarily UNIV 200 students or fellow open participants; in fact, we get the feeling that they are middle school teachers. Note how by hyperlinking Michael brings into the course a learning resource he had created for his students.

In another post, Michael tackles a question that he has always had since college about ultimate frisbee ("In the spirit of #thoughtvectors, I wanted to investigate the issue and find out once and for all"). Inspired by others' blog posts in response to the assignment "How does it feel when I think" and his previous post on the experience of "flow" (a state of heightened engagement), Michael creates a detailed learning resource that could be used "for 6th or 7th grade math." This post clearly demonstrates that Michael was able to bring his interests (e.g., baseball, teaching) and skills (e.g., problem solving in physics and math, lesson planning) to the class in the context of his professional life.

***Exemplar 3***. Throughout her posts, Carol struck me as highly curious learner pursuing many lines of inquiry at the same time. We learn many different aspects of Carol's interests and her professional identities in her posts. For example, Carol, just like Michael, for her inquiry project, builds on an area of inquiry that had fascinated her for many years: automated teaching in kindergarten. Inspired by the course readings, Carol asks new questions:

> *When I was a Kindergarten Teaching Assistant at the U of C Lab School over 30 years ago, I was supervised by a Master Teacher with over 30 years experience at the time. Needless to say, the Kindergarten was traditional with learning areas optimized for dramatic play and constructive activities. It was a far cry from the structured learning programs in most current Kindergarten classrooms. My assistant teaching role was to read class fairy tales to the class. I then worked with small*

> *groups to retell the story what the young children remembered by their drawing pictures and my taking dictation in their own words. Lastly, the student authors were asked to choose a few friends to dramatize their class fairy tale remix for the entire class. The Master Teacher ended the session with a few critical thinking questions about the student's story. … So if a robot projector does a better job than a computer augmenting kindergarten storytelling, how does teaching presence compare to a live teaching assistant facilitating digital storytelling? Could a tech-savvy Master Kindergarten Teacher increase social, cognitive, and/or teaching presence with an "augmented reality" robot projector?*

In another post, Carol, in response to the "*As We May Think*" nugget assignment, explores the use of Wikipedia as a teaching tool. Her response reveals aspects of her prior experience in library instruction and how the meaning of legitimate knowledge has changed over time in her field:

> *Wikipedia first came to mind as realizing what Bush* [the author of "As We May Think'] *imagined as a repository where "material could be entered freely and links to physical items that had been gathered together from widely separated sources could be bound together to form a new book." … I have worked in public, school, academic, and special (medical) libraries providing instructional guidance about information literacy to assist users with locating credible resources. When I started graduate school in 2004, Wikipedia considered "Es ist verboten", never recommended as a source*

*for school work. I was always surprised when judging Chicago History Fair and Illinois State Science Fair that classroom teachers permitted students to include Wikipedia in subject bibliographies.*

Carol ends her post with a question to her imagined audience:

*Did you know that WorldCat, a cloud-based bibliographic database used by libraries, currently has over 264 million individual bibliographic records making up 1.8 billion individual holdings? Worldcat is currently working on algorithms to create links to extensive, existing repositories in global information system to support research in the Internet of Things.*

Thus, Carol not only connects her prior experiences with the article through this nugget assignment. She also uses it as a teaching opportunity by introducing other learners a web-based bibliography database.

**(Q2) If open participants created unique course histories, then what did their participation patterns look like?**

**Typology 2:** Open Participants did not follow a formal learning path.

**Diverse entry and departure points.** Open participants had diverse entry and departure points in the course, as illustrated in Tables 4-7 (the official part of the course took place between June 10 and July 31, 2014). The entry and, particularly, the departure points vary widely among participants. Mariana, for example, started posting blog posts tagged as #thoughtvectors as early as March 2014, months before the course officially began, because of her prior connections with some of the course designers. Michael posted his final inquiry project shortly after the course started, during the third week of the course and then faded away.

Table 4
*Participation Calendar for June 2014*

| **June Participation Calendar** | | | | | | |
|---|---|---|---|---|---|---|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | Cindy | | |
| | | | | Mariana | | |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Carol | Cindy | Cindy | Cindy | Carol | Carol | |
| Mariana | Mariana | Michael x 2 | Melanie | Michael | Melanie | |
| | | Melanie | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | | Carol x 2 | | Michael | Carol | |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Carol | | | Carol<br>Melanie | | | |
| 29 | 30 | | | | | |

Note. Light gray indicates entry to the course via blogs. Dark gray indicates the points of departure from the course. Medium gray indicates all blog posts published in between entry and departure points.

Table 5
*Participation Calendar for July 2014*

| **July Participation Calendar** | | | | | | |
|---|---|---|---|---|---|---|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | | 1 | 2 | 3 | 4 | 5 |
| | | | Carol | | | |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | Carol | | | | |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| | | | | | | Mariana |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| | | | | | | |
| 27 | 28 | 29 | 30 | 31 | | |
| | | | Carol | | | |

Note. Light gray indicates entry to the course via blogs. Dark gray indicates the points of departure from the course. Medium gray indicates all blog posts published in between entry and departure points.

Table 6
*Participation Calendar for August 2014*

| **August Participation Calendar** | | | | | | |
|---|---|---|---|---|---|---|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | | | | | 1 | 2 |
| | | | | | Carol | |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | | |

Note. Light gray indicates entry to the course via blogs. Dark gray indicates the points of departure from the course. Medium gray indicates all blog posts published in between entry and departure points.

Table 7
*Participation Calendar for September 2014*

| **September Participation Calendar** | | | | | | |
|---|---|---|---|---|---|---|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| | | Cindy | Mariana | | | |

Note. Light gray indicates entry to the course via blogs. Dark gray indicates the points of departure from the course. Medium gray indicates all blog posts published in between entry and departure points.

The participation calendars show that the intensity of learner activity decreased over time. Participants published the most blog posts during the first week of the course. During the second month of the course only Carol and Mariana published blog posts in relation to the course. However, it is important to note here that the absence of learner activity does not mean disengagement with the course. For example, as I also noted earlier, Cindy did not publish any blog posts after the first week of the course, but she "was still really curious to see what was going on the course and [she] still did follow, although [she] wasn't able to do the writing" [interview]. Indeed, Cindy posted a final post reflecting on her experiences in the course approximately a month after the course was officially over, on September 2, 2014. It is interesting to note here that the departure points in the course are never definite acts. First, participants can connect to the course at anytime by publishing a new post related to the course. Mariana, for example, posted a detailed reflection on the course in her professional blog on May 15, 2015, after almost a year after the course was over. Second, because open participants' blogs are synched with the course site, even if they publish blog posts irrelevant to the course, they can remain part of the course.

**Re-framing assignments as blog posts.** Open participants blogged about their experiences (as opposed to posting assignments) in the course. For open participants, the course focus could be about anything they found relevant and meaningful for their professional practice. It is important to note here that despite the learner-centered nature of the course, for most VCU students the starting point to write a blog post seemed to be to complete an assignment. Open participants, on the other hand, either published independent posts that had no direct reference to the weekly assignments or used the assignment prompts to write about things that mattered to them.

***Exemplar 1***. Mariana started posting blog posts tagged as #thoughtvectors as early as March 2014. Most of Mariana's blog posts (six out of seven) are independent blog posts that have no direct reference to the weekly assignments. However, this does not mean that Mariana was not engaged with the course, or that she was not learning in the course. In fact, a rich reflective post she shared in her professional blog about a year after the course concluded, clearly shows that Mariana was deeply impacted by the course vision and structure and was able to connect her experiences in the course with her own teaching. Mariana also mentioned in our interview that during the course she had become increasingly interested in the focus of the course because of her background in cognitive psychology and artificial intelligence.

***Exemplar 2***. Although Michael presents his third post in the course as his "associative trails," (a reference to the Associative Trails Concept Experience in week 1), he does not follow the assignment requirements and pursues a line of inquiry that is completely independent. Michael's post was inspired by an unexpected connection he made between one of his previous posts on the experience of "flow" and two other posts (published by a VCU staff and a course designer) talking about the same concept. These connections inspired Michael to tackle a question he had had in mind "since college." But

Michael took this assignment a step further: he posted a detailed lesson plan as part of this post, because he not only "[i]n the spirit of #thoughtvectors, … wanted to investigate the issue," but also "thought [his] scenario might make an interesting application lesson for 6th or 7th grade math."

**Deadlines as suggestions.** As illustrated in Tables 4-7, open participants did not strictly adhere to assignment deadlines; they published their posts at a time that was most suitable for them.

***Exemplar 1***. A striking example is Michael's inquiry project. Michael posted his inquiry project only after 9 days the class started, on June 19, 2014 (the project was not due until July 30). This was also the last time Michael was active in the course; however, this does not mean that Michael did not find the course meaningful for his practice. In fact, in his final work, Michael mentions that he sees "a lot of value in the 'inquiry' project for students in middle school and high school."

***Exemplar 2***. Cindy posted two blog posts consequently (June 9 and June 10) in response to the assignment "How does it feel when I think," although she wasn't required to do so. Cindy posted a follow up on her first post because he had more to share about her experience in the course and the relationship between thinking and feeling ("Back today with just a little more on thinking and feeling – and a few observations on the early rhythm of my thoughtvectors experience so far").

**Diverse Roles.** All the open participants I interviewed mentioned that they were actively trying to guide VCU students in their learning, which was something highly encouraged by the course designers. The diverse roles open participants embodied in the course and also in their blogs are illustrated in Table 8.

Table 8
*The Roles Open Participants Embodied in the Course*

| **Participant** | **Role(s)** |
|---|---|
| Carol | "critical friend," "embedded librarian," "teaching assistant," "subject matter expert" |
| Cindy | facilitator |
| Mariana | "networked provocateur," influencer |
| Melanie | critical friend |
| Michael | learning resource |

*Note*. The quotes indicate that the phrase is originally used or proposed by the open participant.

Mariana embraced the role of "network provocateur" in the course (Mariana and I also framed this as an "influencer" in the interview). I observed that Mariana actively tried to nurture a friendly and welcoming online learning space, particularly on Twitter. For example, on the first day of the course, in response to a student who tweeted about setting up her Twitter account, Mariana said,

> *Hello [NAME] and welcome to Twitter. You will find us a friendly bunch here at #thoughtvectors.*

Here, Mariana not only invites the student to the course, but she also invites her to Twitter, with the realization that not everyone would be ready to be present in an open online platform, because:

> *I don't think anybody gets to the place where they feel comfortable working in the open unless they work through some of the fears they have. And because of my own background I guess, I do look at the psychology of it. You know, it isn't about the technology, it isn't about learning to use WordPress you know. There is a whole lot of other things that are behind…* [Interview]

Mariana's supportive attitude is also visible in her post "*The Mind's I*," which is posted as a visual gift to Cindy in response to a post published almost 3 months earlier, at the beginning of the course. In this post, Mariana mentions that she designed a few GIF images to complement one of Cindy's posts because Cindy mentions that she is not a "gif maker" in her post.

Mariana was less active in the course towards the end but that did not mean she was disengaged with course; it was because her role as the "network provocateur" did not require her to participate in the course until the very end. Mariana said:

> *So my involvement often is, or has been certainly, with thoughtvectors, at the beginning to get things going to encourage people, to notice people who are new, to notice people, you know, maybe, haven't worked with Twitter before for academic purposes and might need a little bit of guidance, that kind of thing. That tends to be what I do. … I've done this in a number of open courses and I generally get involved because I have a prior connection with the people who may be running it. And so... I tend to*

*be more involved at the start and at the end than in the middle often.*

[Interview]

Similar to Mariana, Cindy was also attentive to other learners' experiences in the course. She mentioned in our interview that she was "really trying hard to be thorough and participating and commenting to [VCU] students" because she embraced the course instructors' vision of creating a collective space of learning. Cindy also mentioned in the interview that "commenting is where the conversation happens and it is so important for our students to be encouraged to feel like others are reading their writing, so [she] did try to regularly visit students' post and comment." But sometimes her efforts would not be visible because "[students] would have their commenting set for moderation and they would never approve [her] comment."

Carol, too, explained in the interview that she strived to be a good learning resource for the VCU students "and engage them as an open participant" by strategically "push[ing] and pull[ing] of #ThoughtVector dynamic conversation threads while linking, tagging, and annotating relevant media for future use" [blog post]. For example, Carol would join a different section of the course each week and comment on VCU students' blogs as a "critical friend." For Carol this was "a simple technique to engage [participants] and to move the conversation forward." (It is interesting to note that blogging about issues related to the focus of the course was also a way for Carol to "move the conversation forward.") Carol also likened her role to of an "embedded librarian, teacher assistant, or possibly subject matter expert in the course." However, despite her efforts, similar to Cindy, Carol also mentioned in the interview that this was often a one-way interaction, particularly on learner blogs:

> *I think to get most out of the course you have to engage other participants. The other students that were assigned the grading [system] were only interacting with each other to make the grade. And not interacting with me. So I said, well, if I give them some information, maybe they will follow me.*

She also added:

> *… I honestly think that the grading system was what prevented more people from engaging with me. I think a lot of people just get on, they want to get their homework done, and get off. So engaging with someone outside of their core group was just off—they were not interested in it.*

Sometimes, it was the open participants who needed an extra push to continue the conversation. Melanie, for example, "as an open participant outside of the VCU community," "offer[ed] up feedback to students as much as she could, because it is nice when somebody is commenting on something that you have written, to have that conversation going." But sometimes Melanie never "circle[d] back" to a previous comment:

> *Sometimes … I'll read something and kind of need to to step away from it for a while, and process it, and then go back and comment on it. But then, of course, one thing or another happens and I never actually get back to doing that comment. So I'm guilty of that a lot. Like I'll read somebody's*

*blog, have good intentions of making a good comment, but then never circle back to it.* [Interview]

Melanie also explained in the interview that starting new conversations by commenting on others' work was an attitude she embraced in another open online course, DS106 (Mariana was also involved with DS106 prior to UNIV 200).

> *I think a lot of it* [leaving feedback on others' blogs] *grew out of the DS106 community and the expectations there. You don't have to offer up Pollyanna-ish comments but I guess on everybody's blog being as positive as possible and providing constructive criticism or starting a constructive conversation is encouraged in DS106. I kind of carry that with me with my interactions online. After starting the class may be 3 or 4 years ago. So kind of carried that over onto this class.*

Michael, on the other hand, posted blog posts as potential learning resources for his students and teachers. For example, Michael notes in his blog that his inquiry project "[was] personally intriguing to" him, but he also "[saw] a lot of value in the inquiry project" as a "teaching tool" that could be used in K-12 Math education. It is interesting to note here that Michael also referred to his inquiry project as a "product" that could be used in middle school education ("I made a product (this post) that I can use as teaching tool for a lesson on the [title of his inquiry project]"). Thus, a blog post was not only a reflective piece only relevant to Michael; it was, in fact, an artifact, in other words a tool, for Michael and others to use in their teaching.

**(Q3) If open participants did not follow a formal learning path, then what did their learning look like?**

**Typology 3:** Instances of meaningful learning were visible at different times in the course and beyond.

**Flow**. Sometimes open participants experienced a state of flow, “a state of consciousness” in which “people report feelings of concentration and deep enjoyment” (Csikszentmihalyi, Harper & Row, 1990).

***Exemplar 1***. Michael posted only 4 posts during the course; however, the content of his posts suggested a highly curious and engaged learner. For example, in response to the assignment, “How does it feel when you think?” Michael mentions that he achieved "flow" (complete immersion in the activity) when he was writing the post (“Interestingly enough, I feel as if I achieved ‘flow’ while writing this post”). This is the state when Michael's "best thinking" happens naturally: when he deeply cares about what he is doing and has the motivation to complete the task to the best of his abilities.

> *I think best when I'm not aware of what is happening around me. This is something I realized early in adolescence when I started reading [author name and book title here]. I immediately felt close to the characters in this book that used a concentration technique known as [name of the concentration technique]. As I grew older and began to participate more frequently in athletic activities, I began to identify this state as “flow” or “being in the zone.”* [Blog post]

Michael then explains that this is a state of heightened and focused engagement. We learn from Michael's post that he reaches "flow" mostly when he is doing something athletic, or when he "feel[s] a sense of competition." When he is at this stage, he "begin[s] to connect items and ideas in ways that never would have occurred to [him] had [he] purposefully tried to think of them."

Thus, the assignments inspired Michael to make new connections that "[he has] never really thought about" before. We learn how he miss[es] the classroom … because there are less opportunities to achieve "flow." We also learn about the tensions he experiences between distractions caused by technology and his responsibilities as an instructional technology resource teacher and how those tensions can be barriers to achieve flow. He tells us that he "care[s] deeply about teaching" and how he often experiences "flow" when "lesson planning with teachers." Finally, Michael sets a goal for himself to avoid distractions and increase potential venues for flow:

> *I lose a lot of my best ideas because when I'm working out at the gym, on my bike, or at the golf course, I don't have paper handy to note down items. And, when I do have paper nearby, I often end up with gross, sweaty, nearly illegible notes. Therefore, I'm going to try to set up a voice memo recording system for myself.*

***Exemplar 2***. Similarly, Carol mentioned in our interview that participation in the course was highly rewarding for her because it "brought all of [her] experience and training together." The course was also crucial for Carol improve her health, as due to a serious wrist injury she suffered pain on a regular basis.

*I was in so much pain and I did not want to take the pain meds because the side effects are so awful. Participating in the course I was in the zone. I was like, it took my mind off all the pain.* [Interview]

Carol also shared in a blog post:

*I am deeply appreciative of being able to enroll as open participant in #vectorspace. Though my posts have not been timely, the associations are of great interest and taken my mind off my PT Recovery issues. I have lots of time to think during 6+ hours daily PT and am formulating a wide range of questions for my Concept Experience #2* [a reference to a course assignment].

Carol mentioned in the interview that although she wasn't able to complete her inquiry project on augmenting teacher presence in kindergarten, she did not consider that a failure. In fact, it was only a beginning for her because she was building on prior interests. Her involvement in the class, however, enabled her to strengthen and give depth to some of her long-time passions.

**Lingering effects.** Sometimes the impact of the course on participants was not immediately visible, but participant reflections demonstrated transformative learning experiences after the course was over.

***Exemplar***. Mariana posted an extensive blog post in her professional blog reflecting on her learning experiences in the course almost a year after the course was over. Mariana mentions at the beginning of her post that the course "has been the most impactful MOOC [she has] taken part in since [her] first DS106 experience” and continues:

> *This post is about TVCS* [abbreviation of Thought Vectors in Concept Space] *and the impact it has had in my journey to become an open educator. It has done so much and so quietly that only now, a year on, I realise how privileged I have been to be part of something that is showing me in a very practical way the true potential of this form of open learning.*

Mariana's remarks demonstrate the transformation Mariana went through as a result of her participation in the course. We learn from Mariana's post how she passionately embraced the course philosophy and used some of the course elements in her own course, even though it was delivered through a "closed LMS" (Learning Management System). For example, similar to #thoughtvectors, blogging was central to educational activity in Mariana’s course. Mariana also, aligning with the course vision, "encouraged [her students] to design their blog posts as something that expressed their identity" and to think of their blogs "as a collective dialogue space that allowed for much more than linear text."

**Connections with Professional Practice**. All participants made connections with the course content and their professional lives by engaging in reflective thinking in their blogs.

***Exemplar***. Cindy connected the course to her professional background nearly in all of her posts. The most revealing post is a final post where she “capture[s] some things her participation has brought [her] to.” This is an “associative trail” of her experiences “lurking and observing the course.” Cindy reflects on four “things:” The importance of (1) "reading and writing and facility with language" in everyday practice, (2) teacher presence "as a pedagogical practice," (3) "the open enactment of reflective practice," and (4) "having the discipline to work in the open." Cindy also mentioned during the member checks that she used the course as an example for a faculty development week in May 2015, after about 10 months the course officially ended for VCU students.

The typologies and corresponding themes I presented in this section reveal that open participants had diverse and rich learning experiences in the course despite their non-traditional participation patterns. Participants’ authentic identities were particularly visible in their posts through reflective writing. Gains from the course were not always immediately evident in participant blogs; on some occasions, participants felt the impact of the course on their professional practice months after the official course ended. It is also important to note that participants’ prior experiences in other open online courses and their relationships with course designers and instructors strongly shaped their learning experiences in the course. In the next chapter, I highlight findings from the thematic analysis from three perspectives: *nonlinear participation*, *space for emergent learning*, and *prior experience with open and networked learning*.

## Conclusion, Implications, and Suggestions for Further Research and Practice

As Cronin (2014) argues, open online spaces have the potential to combine the best of formal and informal learning because learners can create *third spaces of learning*, spaces that are "neither formal nor informal but draw on both the skills of formal learning and the informal identities that have a kind of authenticity" (Farrow, 2014). In the context of this interpretative case study of five open participants' learning experiences in a massive open online course, these spaces were manifested in learner blogs through design choices and content. It is important to note here that the pedagogical and philosophical underpinnings of the course welcomed learners into the environment as a "*whole person*" (Campbell in Becker 2014b, 35:56), in other words with their authentic identities, and enabled such spaces to emerge. In addition, learners' prior experiences, backgrounds, interests, and goals were acknowledged and capitalized on as important learning resources in the course.

During the research process, I discovered that it was challenging to identify shared practice among open participants because of the diversity and richness of their online activities and the uniqueness of their online spaces. I observed that aligning with the core characteristic of connected open online courses, open participants "[were] all experiencing a different narrative and there wasn't a community to be found with "coherent practices" (Ito, 2014). Thus, each participant challenged me to think about the course in a different way through their participation patterns and the content and structure of their blog posts.

Yet, there was, nonetheless, a shared narrative which brought people together: the formal course itself. Open participation and the emergence of third learning spaces make sense only in the presence of the formal course. It is interesting to note that all the open participants in the study are statistically "dropouts." Four out of five open participants slowly faded away towards the middle or end of the course and only one participant completed the final inquiry project. Yet, findings reveal that even though participants ceased to actively participate in the course at some point, they were not disengaged with the course in a traditional sense. In fact, the diversity of the roles open participants embodied in the course (e.g., as a “network provocateur," "learning resource,” or “embedded librarian”) reveals that open forms of engagement can be different, and perhaps richer, than traditional student engagement commonly characterized by sustained participation (not intermittent) and completion of assignments. As I have also observed in this context, open participants were able to “adapt learning activities and products to their personal learning goals” (Gogia, 2016), sometimes unexpectedly, because the course design enabled a high level of learner agency. Thus, although I shall later argue that the terminology we use in traditional higher education might be irrelevant to open participants’ experiences in the course because of the unstructured nature of their participation, this does not mean that they did not benefit from the formal, official course structure. In fact, in the context of the study, it was conducive to the emergence of third learning spaces.

Next, I discuss highlights from the thematic analysis in the larger context of the course and relevant literature from three perspectives: *nonlinear participation*, *space for emergent learning*, and *prior experience with open and networked learning*.

**Nonlinear Participation**

Particularly the first two typologies identified in the study (i.e., *open participants created unique course histories through their blogs*; *open participants did not follow a formal learning path*) are consistent with previous research that shows that participation patterns in MOOCs may be nonlinear and more complex compared to traditional courses (e.g., Belanger & Thornton, 2013; Kizilcec, Piech, & Schneider, 2013; Koller, Ng, Do, & Chen, 2013). The nonlinear nature of open participation could partly be explained by the diversity of open participant motives to join and continue with the course. Thematic analysis of open participants' blog posts and interviews strongly supports Belanger and Thornton's (2013) previous research on common areas of motivation for participation in a MOOC:

> (1) to support lifelong learning or gain an understanding of the subject matter, with no particular expectations for completion or achievement;
>
> (2) for fun, entertainment, social experience and intellectual stimulation,
>
> (3) convenience, often in conjunction with barriers to traditional education options,
>
> (4) to experience or explore online education.

There is, however, a fifth area of motivation that is unique to the context of this course: to be a potential learning resource for other learners. It is likely that the fifth area was evident in the course because the course designers, in a similar spirit to Rheingold's (2014) notion of "esteemed co-workers," explicitly invited learners to the course as energy inputs: [everyone in the course was] contributing in some important ways including, and especially, the learners themselves" (Campbell in Becker, 2014a, 4:55).

Going beyond learner intent and motivation, I observed that the affordances of the course platform (designed on Wordpress) also fostered a nonlinear learning experience. As Hirst (2009) noted, for example, blog post content was re-purposed and re-published "through syndication" in different parts of the learning environment, thus creating multiple contexts for relating to them. Further, through hyperlinks pointing to external (e.g., somebody else's post) and internal resources (e.g., a previous post) many unexpected paths of learning were created (for example, old to new, participant to non-participant, expert to novice, official to unofficial, informal to formal, etc.).

The emergent nature of these paths is important because it challenges the official parameters of the course by constantly altering, and further shaping, the course history (hence typology one: *open participants created unique course histories through their blogs*). Consider an online class within a closed space, such as a Learning Management System (LMS). Oftentimes learners and instructors abandon the learning environment after the course ends because there is no activity. Ihanainen and Moravec (2011) refer to this phenomenon as temponormative learning: "it is a pedagogy that embraces linear time." The authors further contend that "a linear conceptualization of time ensures that the learning process has a beginning and an end, with predictable (and measurable) waypoints between." I argue that although instructors may not view the learning process as a linear progression of educational events, the formal organization of learning in an LMS, such as dividing the content into modules or evaluating students' progress using assignments, can indeed confine active learner participation in course related activities in between two points in time.

In an open online space like thoughtvectors.net (the main course site), on the other hand, learners can easily continue to interact with the content (pre-defined and also co-created), with one another, and with a public audience after the course is over because the environment, with all the resources and connections it affords, is constantly available online. Defining the parameters of such a course is a challenge because learners can easily experience pointillist and/or cyclist learning (Ihanainen & Moravec, 2011). For example, they can post a new tweet or a blog post (i.e., pointillist learning) and return to previous ones to start new conversations at any time (i.e., cyclist learning). They can also re-evaluate course related materials and assignments and make new connections based on new experiences and goals, reframing "what constitutes important learning, what aspects of the work to emphasize, and how time is to be used" (Reilly, 2015). Thus, I argue that the third learning spaces learners created in this open course are dynamic in nature because they have the capacity to grow into many directions, and also fade away, after the course is officially over. It is important to note here that pointillist and cyclist learning seem to be more likely to happen in community-based courses because learners have many nodes to connect to besides open educational resources. These nodes can act like catalysts for learners to "circle back" (Ihanainen & Moravec, 2011) to previous activities or start new ones.

**Space for Emergent Learning**

I have observed in the course that the learning activities gave room for learners to have agency in their learning through *adaptation* and *innovation*, both of which were clearly visible in their blogs. Aligning with Mackness's (2014) call to design adaptive learning spaces, learners were:

> following routes of personal and individual interest, … from quiet contemplative spaces (i.e., blogs) to engaged interactive community spaces (e.g, the course hub), through doorways that allow [them] to make connections between [their] past and present, between outside and inside and take [them] consciously or unconsciously over learning thresholds.

Thus, as revealed in the thematic analysis (typology two: *open participants did not follow a formal learning path*), learners did not simply go from point A to point B in the course. They adapted the course activities to better suit their busy adult lives, professional and personal interests, and their imagined audiences. They explored topics that they were personally interested in and felt passionate about, which often resulted in originality and creative thinking. Indeed, the third typology identified in the study (*instances of meaningful learning were visible at different times in the course and beyond*) demonstrates that open participants benefited from the course and some of the gains were transformational; that is, they had significant impact on the learner.

The self-organized and emergent (not pre-defined or predictable) nature of learning in the course aligns with the notion of *emergent learning* (Campbell, 2015;

Williams, Karousou, & Mackness, 2011; Williams, Mackness, & Gumtau, 2012). Williams, Karousou, and Mackness (2011) define emergent learning as:

> … learning which arises out of the interaction between a number of people and resources, in which the learners organise and determine both the process and to some extent the learning destinations, both of which are unpredictable.

Emergent learning in the course is not surprising, as the course was designed to nurture that in the first place (Campbell, 2015) through reflective practice and careful design of the learning environment and activities. In addition, it was previously argued that emergence, that is, emergent knowledge and practices, is commonly observed in MOOCs because it is a vital condition of self-organization (deWaard et. al, 2011). It is, however, interesting to examine the issue of high dropout rates in MOOCs in the light of emergent learning and in relation to the third spaces of learning. As I explained in the thematic analysis, open participants in this study slowly faded away in the course and none of them, except one, completed their inquiry projects. Yet, the third learning spaces learners created point out to an authentic engagement with the course, which merges the formal with the informal in original ways. This type of authenticity, although sometimes short-lived, challenges traditional and top-down notions of success and failure. Consider, for example, this comment on retention in MOOCs by de Freitas, Morgan, and Gibson (2015):

> … while numbers are high for enrolment on the courses, many people appear to be “shopping, looking but not buying” the experiences, perhaps

> due to their being free and non-accredited; others perhaps drop out because of the minimal tutorial contact. Students are not engaged, motivated and committed enough, and therefore find it easy to simply not complete the course—often dropping out before even the first assignments are due. (p. 460-461)

Findings in this study, however, suggest that the traditional markers of success in formal education (e.g., sustained and active engagement, course completion, directly measurable outcome) are insufficient to frame open participants' involvement in this course because of the diversity in learner goals and the emergent paths of their learning. In fact, as Kizilcec, Piech, and Schneider (2013) also argued, they can even be detrimental to the learning experience, if the goal is not course completion.

However, all the participants I interviewed mentioned that had they had more time, they would have liked to better participate in the course. Reasons for fading away are highly consistent with the most prominent reasons for learner disengagement noted by Kizilcec, Piech, and Schneider (2013), despite the differences in course contexts (Kizilcec, Piech, and Schneider examine xMOOCs in their study). Participants also mentioned "personal commitment(s)" and "work conflict" in addition to lack of time as barriers for active participation (Kizilcec, Piech, and Schneider also note "course workload" as a common barrier). However, there is a need to make a distinction between disengagement and ceasing active participation here. This study's findings (particularly typologies two and three: *open participants did not follow a formal learning path*, *instances of meaningful learning were visible at different times in the course and beyond*) suggest that fading away *does not necessarily mean disengagement*; in fact, learners can still remain in the environment and follow along without being active or visible. Also, as I discussed above, they may engage in pointillist and/or cyclist learning (Ihanainen & Moravec, 2011) and follow a nonlinear path of learning. Thus, "the points of disengagement" (Kizilcec, Piech, & Schneider, 2013) are not points of departure from the course; in the context of the course it is perhaps more useful to think of them as *possible points of reconnection* among many others.

**Tacit guidance.** Mackness, Mak, and Williams (2010) argue that "some constraints and moderation exercised by instructors and/or learners may be necessary for effective learning" in open courses based on connectivity because, "[t]he key features of a complex, open course, rich in emergence, are that it is not defined by what must happen, but rather by what must not happen – the boundaries of openness" (p. 272). However, guidelines for open participation were mostly tacit in UNIV 200: they were often "assumed, unsaid, and understood as a product of experience and interaction" (Thomas & Brown, 2011, location 960 of 2399). The boundaries and constraints of openness in the course, as well as instructional aspirations, were mostly established through modeled practice and instructional design choices. Consider, for example, how by default open participants' blogs were aggregated on the course homepage (thoughtvectors.net). The decision to include open participant blogs on the main page is an invite for the learning community to see open participation as a valid, and desirable, form of course engagement. Another example for tacit guidance in the course was the creation of multiple spheres of community through the different labels used for course participants. The grouping of learners in the course as *open participants* and *VCU students*, for example, no doubt, impacted how each group approached one another and the course in general.

In addition, instructors blogged regularly during the course and beyond on course related issues and topics, often times merging the personal with professional in unique and creative ways (for an example, see Gardner Campbell's blog post "Who is this for?" at http://www.gardnercampbell.net/blog1/?p=2275). I observed that these blogs became important gateways for participation in the course because they demonstrated the instructors' vision and the different ways open participants could participate in the course. They were also means to achieve an authentic relationship between open participants and instructors. I refer to these interactions as authentic because neither instructors nor open participants were required to interact with one another. Yet, on many occasions the VCU community commented on open participants' blogs or mentioned them in their own blog posts or Twitter messages showing that they were listening to their voices and vice versa. Thus, it is possible that participant practices were influenced by how instructors presented themselves in online spaces. As one open participant in the study noted:

> I am struck by the personal in all of it. The personal connections of the 'official' faculty in the bits and pieces they are creating and sharing. The personal connections in the writings and postings and sharing in Twitter and blogs. The personal connections forming between and amongst participants. I believe (firmly) that when FACULTY/TEACHERS take

> this much personal interest in what they are doing – their relationships with the ‘content’ (for lack of a better word), with learners and each other – the result is magnificent learning. [Blog]

Thematic analysis of findings indicate that when reasons to participate in the course are diverse and when participant interests are the driving force of participation, the absence of guided learning is not necessarily a limitation in the environment. However, as few open participants noted, open participants sought more meaningful interactions with for-credit students. They were at times disappointed with engaging in a one-way dialogue particularly on student blogs. Although, as Bonnie Boaz notes, in an open environment, learners' relationships become much more authentic "with regard to purpose and audience" (Boaz, in Becker et al., 2014a, 21:45) VCU students’ lack of response to open participants supports the view that “connectivity itself is not a sufficient condition for connectedness or interactivity” (Mackness, Mak, & Williams, 2010, p. 272). Thus, considering that the expertise was distributed in this class, both groups could benefit from a more meaningful dialogue and more explicit guidance on how to go about it.

**Prior Experience with Open and Networked Learning**

An important point of discussion that is tied to the perspectives discussed up to this point is the digital literacies, or more precisely, the network literacies of open participants. This study suggests that *nonlinear participation led to emergent learning outcomes because open participants had high levels of digital literacies*, particularly network literacy. Network literacy can be described as having a deep understanding of how networks work and how they can be leveraged as important sources of knowledge and as catalysts for personally meaningful activities (Rheingold, 2013). It is useful to think about networked literacy from the perspective of situated learning (Lave and Wenger, 1991). Networked literacy is not a technical skill that learners can acquire for life (like learning how to drive or how to read) because it is defined by relationships. In other words, it is a relational experience shaped by growing experience in participation in online communities (not necessarily communities of practice). Carol, for example, was highly strategic about her contributions to the course network from the beginning. But she needed time to understand the relationships in the course (for example, relationships between for-credit students and open participants) and her position among them.

Prior experience with open and networked learning was also crucial for the emergence of third learning spaces in the course. As one open participant, Cindy Jennings, noted in her blog "the narration of practice and work and thinking started before and continues after #thoughtvectors." First, participant blogs were not created just for the course, these were spaces open participants had already inhabited for different purposes. The authentic voice was visible in these spaces because participants had already developed a way of being present online in the first place, which also points to the high levels of digital literacy skills of open participants. What the course offered though, was an opportunity to connect "the personal" with the formal (or, in other words, scheduled) events of the course and the learning community in nonlinear and creative ways.

Second, most participants had already been active on Twitter and had successfully built personal learning networks (PLNs). It is interesting to note that all the open participants I interviewed mentioned that they heard about the course on Twitter either through a colleague and/or one of the course designers. Two participants mentioned that they followed “connections”: when they joined the course they did not know about the content of the course. Their involvement was simply initiated by relationships. Thus, the course was not only about content for those participants; it was also about, as Cindy noted in the interview, “connections and communities that formed as a result of the course.” One implication of this emotional connection was that fading away from the course meant disconnecting from the community.

Third, some open participants (as well as some of the course designers) brought with them into the course the philosophy and cultural traditions of other communities they had connections with (such as the open online course DS106), which points to the importance of “outside groups and networks” (Kop, Fournier, & Mak, 2011; also noted in Veletsianos, Collier and Schneider, 2015) in “maturing of e-learning users” and “social networking” (Kop, Fournier, & Mak, 2011; Mak, Williams, & Mackness, 2010, p. 283). These prior connections strongly impacted the *level of openness* in the course. The open course DS106 was particularly influential for two of the participants to develop a philosophy of being present in open spaces (for example, decisions as to how much to reveal “half baked” thoughts online or using real names) and the roles they embodied in the course.

All the open participants I interviewed in the study described a qualitative shift from closed to open. This shift was also in some instances visible on their blogs. For example, both Carol and Cindy felt like they had to overcome a feeling of shyness or fear to successfully participate in some of the course activities. Mariana mentioned that she felt more comfortable tweeting and blogging as she built relationships with others online. Melanie mentioned in one blog post that sharing browser histories with others (a course activity: associative trails concept experience) felt like an intimate act and shared a video titled “Somebody’s Watching Me” as a reaction. Thus, it is important to highlight that mature presence points to a well-developed presence of open participants but it is never *fully developed*. As the thematic analysis reveals, presence is a shifting construct that is constantly under construction.

**Trust and prior connections.** It is also important here to note that despite previous research that places emphasis on the importance of moderating the environment to build trust (e.g., Mackness, Mak, & Williams, 2010; Kop, Fournier, & Mak, 2011), I observed that trust in this context was primarily established because of prior connections, particularly the personal connections participants had with the course designers and with colleagues in other MOOCs. Most open participants in the study had connections with at least one course designer and trusted that they would provide a valuable educational experience. Even if participants did not know anyone associated with the course, or were unfamiliar with the focus of the course, they followed people they trusted into the course. During the course, modeled practice and the genuineness and openness of the instructors further helped to build trust in the learning community. Note how in this context, diversity was not “managed” (Mackness, Mak, & Williams, 2010, p. 272); rather, it was welcomed and highlighted through assignments that brought to surface the personal experience.

## Implications

Before I conclude the study and discuss the implications of this research, I would like to highlight the unique context of UNIV 200 once again. UNIV 200 was a three-credit general education course on research writing, which was opened to the public as a MOOC. As with any course, teaching practices in UNIV 200 were "affected by the [academic] discipline, the institution and the personal" (Ross, Sinclair, Knox, Bayne, & Macleod, 2014, p. 65). The academic discipline is particularly of interest in discussing the implications of this study because it heavily impacts the pedagogy and overall organizational structure of the course. Throughout the course, instructors emphasized the importance of multimodality, metacognitive thinking, and nonlinear and emergent processes in research inquiry. A course that follows a more linear structure (for example, a class that teaches the fundamentals of physics) or a course with rigidly framed learning objectives may still afford multiple entry points, but perhaps not as much as this particular course. Thus, I invite readers to consider the disciplinary context in evaluating the transferability of the implications of this research.

### Overview: Shifting the Focus of Open Teaching from the End Product to the Learning Process

It is important to nurture third learning spaces in open learning because they have the potential to merge informal and formal learning in authentic ways and create personally meaningful learning experiences. The creation of a third learning space is a matter of identity. Learners can be present in the environment with their authentic, or self-determined, identities and can challenge top-down notions of "studentship" (according to Merriam-Webster dictionary, the state of being a student [http://www.merriam-webster.com/]). Indeed, the dynamic nature of third learning spaces identified in this study challenges some common assumptions about courses, which are generally marked by spatial and temporal boundaries. These boundaries, to a great extent, are determined by higher authorities such as instructors or institutions. For example, Downes (2013a) posits that a course (1) “is bounded by a start date and an end date,” (2) “is cohered by some common theme or domain of discourse,” and (3) “is a progression of ordered events related to that domain.” Findings from this study, however, show that when learners are given a choice to self-organize their learning experience and when they are welcomed to the environment with their authentic identities, a course can expand beyond those boundaries quite effortlessly. Thus, the same course can be framed as a learning “resource” (Duhring, 2013), an educational experiment (as one open participant noted), or “a learning experience” (which was how the course was framed by course designers). As Fini noted as early as in 2009, in such contexts, learners do not necessarily seek a passing grade or an official acknowledgement of their participation, which was also the case for all the participants in the study.

However, this does not mean that a course with temporal limits and bounded events has no value. In fact, as Downes (2013b) argued, “the creation of temporary and bounded events allows for engagement between communities that would not normally associate with each other.” For example, in the context of this study thoughtvectors.net (the main course hub) was a “stirring pot” (Downes, 2013b) that brought different communities together (for example, the VCU staff and faculty, open participants, and for-credit students) and enabled third learning spaces to emerge in diverse and unexpected ways.

The three typologies identified in this study (*open participants created unique course histories through their blogs*; *open participants did not follow a formal learning path*; *instances of meaningful learning were visible at different times in the course and beyond*) suggest that, although avoiding high dropout rates may be important for MOOC designers or instructors, course completion should not be used as a criteria to make top-down judgments on the value of MOOCs. As one open participant in UNIV 200 commented (dave70, 2014):

> A great feature of truly OPEN courses is that anyone at all can benefit, even those who only stumble across individual posts. And you can make the course whatever you want it to be, limited only by the interests shared between yourself and other participants.

Thus, this dissertation study led me to strongly align with scholars who call for a need to re-conceptualize what participation and achievement mean in MOOCs (e.g., DeBoer, Ho, Stump, & Breslow, 2014; Fini, 2009; Koller, Ng, Do, & Chen, 2013). As Hayes (2015) noted, and also as demonstrated in this research, there is a need to "consider the many ways in which MOOC students could be participating in, and benefitting from, courses without completing assessments" (p. 10). There is also a need to focus on how learners can make the most of their course in connection with their everyday experience. In other words, there is a need to shift the focus of open teaching from the end product to the learning process because of the diversity in open participant motives in joining and following a MOOC and the emergent nature of their learning experiences. However, it is important to pay attention to learners' digital literacies and their prior experiences with open learning, as I discuss in the next section.

**Implications on Open Pedagogy**

What are some crucial pedagogical conditions that contribute to the emergence of third learning spaces? Three pedagogical principles firmly emerged from this study: (1) give voice to the authentic self; (2) recognize the contextual nature of open scholarship; (3) be cognizant of multiple layers of digital literacies, such as open and networked literacies.

**Give voice to the authentic self**. The challenging task of bringing the everyday experience to all aspects of learning can be addressed by giving a voice to the authentic self, one that is not defined by instructional expectations or preconceptions. It is important to consider the alignment of technology, pedagogy, and the unique characteristics of the disciplinary field in this process (Mishra & Koehler, 2006). For example, in this study, blogging was a vehicle for instructors to achieve their educational vision in the 21st century writing classroom: writing on the web and with the web to augment the human intellect (Campbell, 2015). I observed that the combination of the affordances of blogs and open-ended and metacognitive assignments that encouraged learners to personalize their learning experience, brought to surface learners' authentic identities in the course, hence creating third learning spaces. Although the emphasis may seem to be mainly on the individual in this process, as Middleton (2015) noted, this "focus on 'self' is very much [needed] in terms of a successful 'social' learning environment in which all voices are encouraged, heard and valued." Here social interaction should be understood as a dialogue that connects people with one another and includes the inner dialogue one might engage in public online spaces as well. More research, however, is needed to better understand the tension, or the relationship, between traditional *student* and *authentic* identities open participants bring into open online courses.

**Recognize the contextual nature of open scholarship**. Building on Veletsianos and Kimmons's (2013) work (which focuses on open teaching and research practices only), open scholarship can be defined as "any teaching, learning, and research practices that are public and that "espouse openness[3]" (Koseoglu & Bali, 2016; Veletsianos & Kimmons, 2013, p. 167). One common assumption in open scholarship is that the shift from closed to open is only constrained by technical issues and a lack of vision. For instance, the manifesto "working openly on the web" calls educators to "work openly by default," unless "it contains sensitive information" (Belshaw, 2014). However, first, as I discuss in this study, openness evolves in time and is influenced by our digital literacies (which encompasses open and network literacies as I discuss further below), particularly the lived experience of our engagement with specific networks. As Cronin (2016) and M. Funes (personal communication, February 6, 2015) noted it is important to acknowledge the fact that openness is a personal dialogue for every learner and respect individual choices. Second, openness is not always a linear shift; it is multi-dimensional because of its personal and contextual nature. Third, openness is not neutral: the way we go about

[3] Openness in this context can be described as adopting a spirit of transparency and making an effort to remove boundaries that pose a barrier to public outreach and connectivity (Veletsianos & Kimmons, 2013).

openness is shaped by our values and beliefs (Knox, 2013; Edwards, 2015). Fourth, openness is not always beneficial for learning; in fact, it can be as constraining as closedness, because every opening calls for “selectiveness and exclusions” (for example, by delivering a class in an open format instructors may close possible trajectories of one-on-one instructor-learner dialogues) (Edwards, 2015, p. 251). As Ross (2015), citing Edwards (2015), notes “educators must move away from ‘pursuing openness per se as a worthwhile educational goal’ and instead decide ‘what forms of openness and closed-ness are justifiable’” (Edwards, 2015, p. 255, as cited in Ross, 2015). Thus, it is crucial to consider the tensions between design and pedagogical choices and learner preferences in open courses.

**Be cognizant of multiple layers of digital literacies, such as open and networked literacies**. In open online courses there is a need to pay attention to the digital literacies of learners, which according to Rheingold (2010) is a broad concept that involves issues with mindful attention, active participation, collaboration, network awareness, and critical consumption of online content. In an open online course, developing a strong sense of network awareness is particularly important for learners to make the most of the connections afforded by the course.

However, as Gogia (2016) pointed out, “networked learning” does not equate to “open learning,” although there may be overlaps. A network can be closed (e.g., a social networking site protected by a password) or partially-closed (e.g., a Facebook group) as well. Thus, I argue that there is a strong need to think about *open literacies* (a subset of digital literacy), which I define as the skills and attitudes needed for successfully navigating and participating in open online spaces (Figure 17), in open courses. Open literacy may include knowledge of copyright, an awareness of one's imagined and authentic audiences, being able to make informed decisions as to when and how to become public or anonymous and the ethics of using and repurposing the traces of publicly available data, including the traces of open scholarship. For example, are we—learners, teachers, facilitators, course convenors and alike—aware of our digital footprints? How much do we know about copyright issues in open online spaces? How much do we know about ethical issues in open online spaces? To what extent are we able to create and organize metadata? To what extent are we aware of our authentic audience? Are we ready to address any tensions that might arise due to the misalignment of our authentic and imagined audiences? Can we make informed decisions about when and how to become public in open online courses?

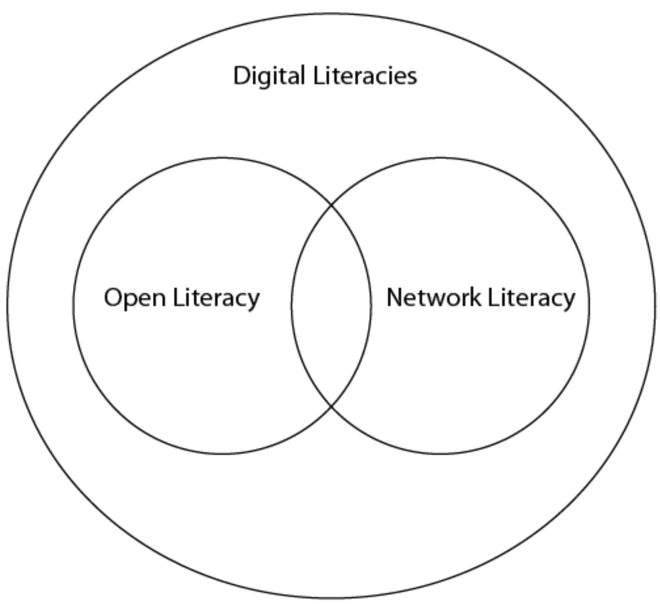


*Figure 17.* Having a deep understanding of open and network literacies is crucial for any teaching and learning practice in open online courses. These literacies are subsets of digital literacies and may overlap depending on the context.

Such questions are important to consider in open pedagogy because if we wish learners to have the agency to self-organize a space of, and for, *dialogue*, we need to make sure that they have the means to do so. Learner autonomy, as Downes (2013c) also noted, does not mean abandoning the learner and assuming that they know how to navigate an online course with all its complexity. One growing challenge for open educators, then, is to be able to speak to open and network literacies and bring them to the attention of each and every learner through ongoing dialogue and tacit guidance.

## Suggestions for Further Research and Practice

As final remarks, I would like to emphasize the value of having a shared vision in designing open online courses. As McGrath (2008) notes, the educational vision impacts the learner experience directly from start to end by laying a firm foundation for pedagogical practice. The vision also impacts something that is hard to measure: the *spirit*, or as one participant in this study mentioned, "the rhythm and flavor" of a course. Haber (2014) in a blog post on the recent MOOC hype (particularly the xMOOCs) notes:

> Perhaps the fact that the world's most prestigious colleges and universities were offering their best courses for free is enough to explain this excitement. But I'd like to suggest that the thing that keeps thousands of people involved in a quality online class derives from a special something – an esprit de course – that makes a great course indecipherably unique.

UNIV 200, or #thoughtvectors, was delivered in such a special spirit. The passion the course designers had was embodied in their blogs, Twitter messages, comments to students and open participants, the course hangouts; in other words, in their everyday teaching. The idea of *learning in a collective space*, or *being together on a learning journey*, was fully embraced by the instructors themselves. They believed that "wonderful things" could happen when formal learning took place *on the web* and *with the web*, because the online connections (both with resources and people) could powerfully "augment the human intellect." Yet, many open online courses lack a clear vision and a coherent structure that powerfully taps into the affordances of the World Wide Web. It also seems like an honest reflection as to why one (including institutions) might want to deliver a MOOC is much needed in the education community.

There is clearly a need to clarify our position on two areas in order to improve the open pedagogy: the educational vision and the conditions of teaching and learning that will help us realize that vision. There are, no doubt, challenges in creating a shared vision, especially when teaching and learning take place in the unbounded and occasionally shifting spaces of the web. The instructional challenges in constructing a shared vision in designing MOOCs, along with barriers in various digital literacies (such as open literacy or network literacy) should be critically explored in-depth in future studies using methods that are sensitive to the relational nature of the human experience. Going beyond academic research studies, the education community should learn from the *lived experience* through emerging venues of research and communication such as blogs and Twitter. These are invaluable spaces for educators to listen to one another's authentic voices and engage in dialogue in a timely manner. Only then can we genuinely nurture "expansive, inclusive, and active learning environments" (Brown et al., 2009, p. 63) that potentially have massive value for learners.

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## Appendix A1

## Course Schedule in Detail

(http://thoughtvectors.net/summer-2014-syllabus-thoughtvectors-1-0-the-pilot-episode/)

*A note about deadlines*: EACH DATE INDICATES THE DATE WORK IS DUE. WORK DUE ON A SPECIFIC DATE MUST BE SUBMITTED BY 11:59 p.m. Eastern Daylight Time. Be sure to check your time zone to see what "11:59 p.m. EDT" is where you are living as you take the course.

*A note about synchronous (same-place, same-time) events vs. asynchronous events*: although most of the course is asynchronous–participation will happen at various times, loosely organized by days–there will be some special synchronous events, mostly live Google Hangouts streamed to the web. They are noted below. If you cannot make a synchronous event, don't worry: there will be an archived version you can watch later. There will be possibilities for real-time interaction during the synchronous event–for example, asking questions of a guest speaker–that won't be available when you view the archived version, but either way there will be plenty of opportunities to make use of the material and to interact around it.

WEEK ONE

June 10: The Course Begins
SYNCHRONOUS EVENT: Live Google+ Hangout with all six professors (8 p.m. EDT)
ASSIGNMENTS: Read Vannevar Bush, "As We May Think."
Blog post: a self-portrait in words and more. "How Does It Feel When I Think?"

June 11
Blog post making nugget from "As We May Think" as meaningful as possible
Do "associative trails" concept experience

June 12
Leave a substantive, interesting comment on at least 10 of your classmates' nugget posts.
Blog post on "associative trails" concept experience

June 13
Comment on at least 10 of your classmates' "associative trails" blog posts
Blog post: first "progress report / research reflection"

OVER THE WEEKEND: Read J. C. R. Licklider, "Man-Computer Symbiosis," and choose a nugget you'll work with.

WEEK TWO

June 16
(Hangout rescheduled for later in the week–stay tuned)

Blog post making nugget from "Man-Computer Symbiosis" as meaningful as possible

June 17
Do the nugget post again, revising it with links to at least five classmates' posts from June 16. (In other words, get in the habit of linking out to other blog posts, including your own, frequently and robustly.)

June 18
SYNCHRONOUS EVENT: VCU cMOOC Live in Concert at the New Media Consortium! (4:00-5:15 PM EDT)
Do "formulated vs. formulative" concept experience and blog about it.

June 19
Comment on at least 5 of this week's revised nugget posts and 5 of this week's concept experience posts.

June 20
Progress report / research reflection post, with links to at least four other posts (you may link to earlier posts of your own as well).

OVER THE WEEKEND (a big one!): Read at least these excerpts from Doug Engelbart, "Augmenting Human Intellect: A Conceptual Framework":

Chapter I, "Introduction," parts A ("General") and B ("Objective of the Study")
Chapter II, "Conceptual Framework," parts A ("General") and B ("The Basic Perspective")
Chapter III, "Examples and Discussion," part A ("Background") sections 2 ("Comments Related To Bush's Article" and 3 ("Some Possibilities with Cards and Relatively Simple Equipment")
Nothing from Chapter IV
Chapter V, "Summary" (all)
Chapter VI, "Conclusions" (all)
and of course, pick your nugget.
You should also watch some or all of "The Mother Of All Demos." There's a nice set of highlights made by SRI International that's great as an overview.

WEEK THREE

June 23

SYNCHRONOUS EVENT: Google Hangout
Blog post making nugget from "Augmenting Human Intellect" as meaningful as possible.
Don't forget the links (make them interesting, make them revelatory, make them creative)

June 24
Blog post
Begin integrated domain concept experience

June 25
Blog post on integrated domain concept experience. Other concepts to explore: personal cyberinfrastructure, dynamic knowledge repository/ecosystem

June 26
Blog post commenting on and linking to at least 5 classmates' posts on the integrated domain concept experience.

June 27
Progress report / research reflection post, with links.
Inquiry project proposal draft #1 posted with request for comments.

OVER THE WEEKEND: Read Ted Nelson, *Computer Lib / Dream Machines* (excerpts. pdf download) and pick a nugget to work with.
Comment on at least 5 of your classmates' inquiry project proposal drafts

WEEK FOUR

June 30
SYNCHRONOUS EVENT: Google Hangout
Blog post making nugget from *CL/DM* as meaningful as possible.
Work on creating and curating ultra-rich environment.

July 1
Blog post making nugget even more meaningful.
Share and discuss ultra-rich environment.

July 2
Continue to share, revise, discuss ultra-rich environment (don't forget the "fantics" or the "thinkertoys").

July 3
Continue to share, revise, discuss ultra-rich environment (don't forget the "fantics" or the "thinkertoys")
Post progress report / research reflection.

Post inquiry project proposal draft #2 with thoughts on design as well as direction and topic.

July 4
Independence Day holiday (USA)

OVER THE WEEKEND: Comment on at least 5 of your classmates' inquiry project proposal drafts.
Continue to refine your own inquiry project design.

WEEK FIVE

July 7-11
Intensive work on inquiry project topic, direction, design
Blog every day! Comment every day! Tweet often! Link frequently!

July 7
SYNCHRONOUS EVENT: Google Hangout

July 11
Progress report / research reflection

OVER THE WEEKEND: Read Alan Kay and Adele Goldberg, "Personal Dynamic Media" (pdf download). Pick a nugget to work on.

WEEK SIX

July 14-18
Intensive work on inquiry project topic, direction, design
Blog every day! Comment every day! Tweet often! Link frequently!

July 14

SYNCHRONOUS EVENT: Google Hangout
Blog post making nugget from "Personal Dynamic Media" as meaningful as possible
Begin concept experience on "meta" and the craft of argument: metamedium, metaphor, metacognition

July 15
Concept experience continues

July 16
Post to share concept experience

July 17
Comment on classmates' concept experience

July 18
Progress report / research reflection

OVER THE WEEKEND: Review current state of inquiry project–what work remains to be done?

WEEK SEVEN

July 21-30
Intensive work on inquiry project.
Blog every day! Comment every day! Tweet often! Link frequently!

July 21
SYNCHRONOUS EVENT: Google Hangout

July 28
SYNCHRONOUS EVENT: Google Hangout

**July 30**
**INQUIRY PROJECT DUE**

**July 31**
**SYNCHRONOUS EVENT: Closing Ceremonies**

# Appendix A2

## Nugget Assignment Description

(http://rampages.us/revolution/nugget-assignments/)

For each reading, we'll ask you to take a passage from the reading that grabs you in some way and make that passage as meaningful as possible. It could be a passage that puzzles you, or intrigues you, or resonates strongly with you. It could be a passage you agree with, or one you disagree with. The idea here is that the passage evokes some kind of response in you, one that makes you want to work with the passage to make it just as meaningful as possible. A good length for your nugget is about a paragraph or so. Too much, and it becomes unwieldy. Too little, and you don't have enough to work with.

How do you make something as meaningful as possible? Well, use your imagination. You'll probably start by copying the nugget into your post. From there, consider hyperlinks, illustrations, video clips, animated gifs, screenshots, whatever. Make the experience as rich and interesting as you can. And as we go along, you'll have more and more of your classmates' work to link to as well. In fact, linking and commenting are such vital and necessary parts of this course that they have their own definitions page.

Obviously, one of the main goals of this assignment is to get you to read these essays carefully and respond to them imaginatively. Your work with "nuggets" should be both fun and in earnest. It should demonstrate your own deep engagement and stimulate deep engagement for your reader as well.

## Appendix A3

## As We May Think Concept Experience Assignment Description

(http://rampages.us/revolution/as-we-may-think-concept-experience/)

The key concept we want to explore in this experience is that of associative trails. Here's the experience. It involves browsing the web, and then reflecting on the experience. It should take about an hour or so. Remember, this will be public eventually, so PG-13 is probably the safe maximum here, metaphorically speaking.

1. Launch a browser and head to a website you find interesting. For best results, don't make the site a Netflix site with a movie–or even YouTube with a video that lasts more than two or three minutes. The idea is to do some browsing.
2. Make a note (electronically, or write it down) of this website and the time you started the experience. This will be very important for later on, so don't skip this step, and don't just try to remember the site and time. Make a note.
3. Now, for a half hour or forty-five minutes, just browse the web. Try not to think about the assignment. Simply click around and follow your interests. This may feel random to you, but don't worry. (I bet you never thought you'd hear that in a college class, did you?)
4. After this half-hour or forty-five minutes, stop. Note the site you stopped on and the time you stopped.
5. Now go into your browser history and look at the list of places you've been, from the starting point of the exercise to the stopping point of the exercise. Copy-and-paste the list into a Word doc for safekeeping. You can also do a screenshot, if you'd prefer.
6. Now, in your next blog post, share that set of associative trails and reflect on what you see in them as a portrait of the way your mind works–and a portrait of the way the web works, too. Try to connect at least part of your experience to what Vannevar Bush

wrote about in “As We May Think.” Be sure to point out any surprises in what you’ve learned, or anything you see that suggests more questions or makes you curious.

If you have questions, let me know. And good luck! I’m eager to see what you’ll be sharing and reflecting on.

## Appendix A4

## Creating a Fantic Blog Site Assignment Description

(http://rampages.us/revolution/computer-lib-dream-machines-concept-experience/)

This concept experience asks you to make the look-and-feel of your blog site more interesting, more beautiful, and more expressive. The idea here is to do something creative with your site, not just with your posts (though that's important too).

The experience is inspired by Dr. Ted Nelson's idea of fantics. He begins writing about fantics on page 317 of the excerpt from Computer Lib/Dream Machines.

**–BEFORE YOU START, BE SURE TO EXPORT (BACK UP) YOUR BLOG TO YOUR LOCAL HARD DRIVE (Dashboard > Tools > Export).** That way you can recover if something disastrous happens, though given the way WordPress operates, it's doubtful you'll experience a disaster. Still, better safe than sorry, and you'll also have some practice in exporting your blog content.

What can you do to make your blog site more interesting, beautiful, and expressive? Some ideas for folks using WordPress (similar things can be done with Blogger and

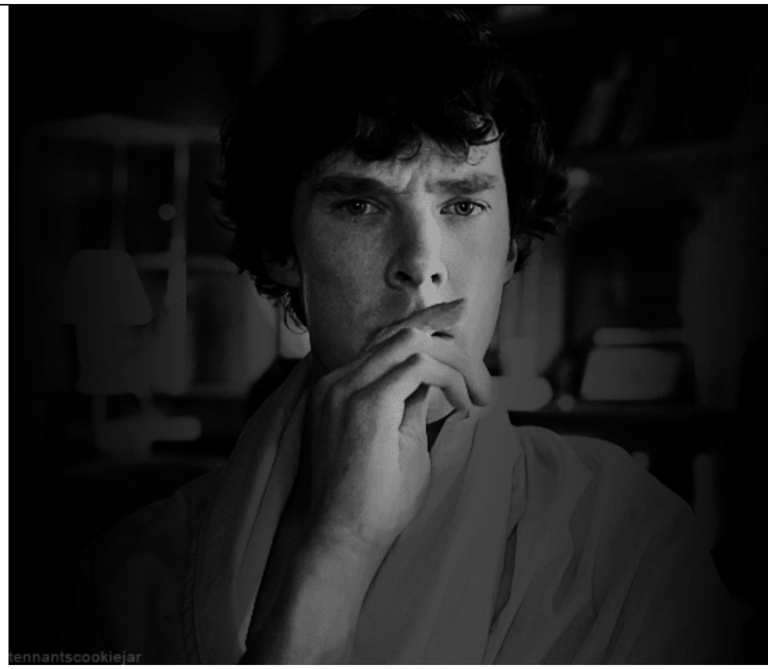
Tumblr):

1. Come up with a clever tagline (Dashboard>Settings>General). “Just another rampages.us site” is not how you want your blog to be remembered.
2. Use an interesting header image, and choose a background if the theme permits it.
3. Experiment with different themes (Dashboard>Appearance>Themes).
4. Play with different layouts for your blog.
5. Experiment with widgets.
6. Experiment with plug-ins.
7. Put together a blogroll of your favorite blogs.
8. Create an “about” page, or any static page you like.
9. Experiment with menus.

I realize that the above suggestions may seem “technical” at first. They do require experimentation, it’s true. My advice is to a) enjoy tinkering, and b) look at a classmate’s blog you enjoy visiting, and contact them to ask how they’ve done it. Some of you have already begun experimenting–always a good thing, in this learning experience. And of course I’m also available to help.

**When you’ve got your blog to a state where you want to show it off a bit**, tweet an invitation using the #thoughtvectors hashtag. Make sure your invitation is creative enough to entice people to come look.

**Your final blog post for the week, due Thursday by 11:59 p.m. EDT**, will be an account of what you changed and why, with a reflection on the process and the product. Ideally, the entire concept experience will be valuable to you as you think more deeply about how to present your inquiry project on the web




**Here are some quotations to guide and inspire you.(Ted Nelson, like Alan Kay, is eminently quotable.)**

RESPONSIVE COMPUTER DISPLAY SYSTEMS CAN, SHOULD AND WILL RESTRUCTURE AND LIGHT UP THE MENTAL LIFE OF MANKIND (317). [Full caps in the original.]

The exhilaration and excitement of the coming time is hard to convey on paper. Our screen displays will be alive with animation in their separate segments of activity, and will respond to our actions as if alive physically too (317).

What few people realize is that big pictures can be conveyed in more powerful ways than they know (318).

By “fantics” I mean the art and science of getting ideas across, both emotionally and cognitively…. Explicit declarative structures nevertheless have connotative fields:

people receive not only cognitive structures, but impressions, feelings and senses of things (319).

[F]antic design that builds from a well-organized internal dynamic should confer on a fantic system the same momentum and clarity that carefully-organized writing has (323).

Fantic design is basically the planning and selection of effects [emphasis Nelson] (324).

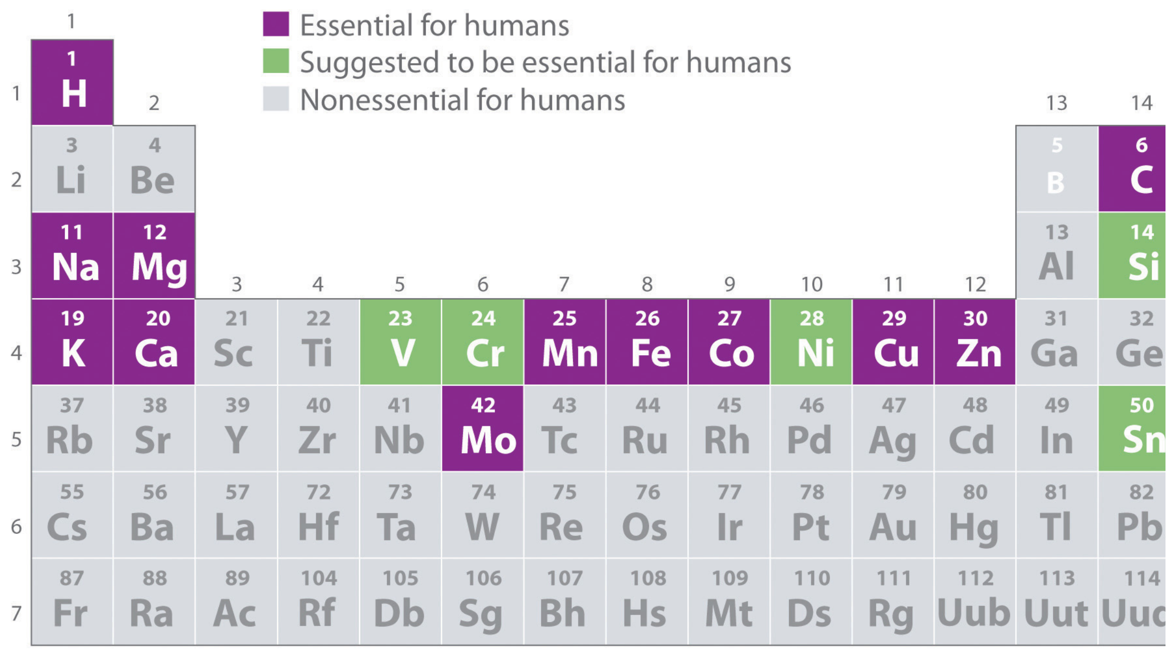
But this means you, dear reader, must develop the fantic imagination. You must learn to visualize possible uses of computer screens, so you can get on down to the deeper level of how we are going to tie these things together…. Our goal should be nothing less than REPRESENTING THE TRUE CONTENT AND STRUCTURE OF HUMAN THOUGHT. (Yes, Dream Machines indeed.) But it should be something more: enabling the mind to weigh, pursue, synthesize and evaluate ideas for a better tomorrow. Or for any at all (326).

# Appendix A5

## Inquiry Project Assignment Description

(http://rampages.us/revolution/inquiry-project-essentials/)

**Inquiry Project: Essential Elements**




**Your inquiry project: essential elements**

1. You must have a written component of at least 2000 words. The writing should be moderately formal: contractions and "I" are fine as long as you don't overuse them, but please avoid slang, lolspeak, l33t, textspeak, emoji, etc. *unless they are important to the point you're making (which they may be)*. You want to build credibility as a serious researcher. That said, serious is not the same as boring or stuffy or stilted or mannered. Boring, stuffy, stilted, mannered writing is no fun to write or read. Your writing should be precise, inviting, vivid, and beautiful, with a sense of pleasure in the style. [1]

REMEMBER that the Writing Center is here to help you and will be happy to work with you over multiple drafts. I'll be happy to offer feedback on a draft as well, of course. More on the required draft soon.

2. You should use varied and substantive sources, including at least three scholarly sources. I hope you've located some of these already, but if you haven't, it's not too late:  our librarian, Jenny Stout, can help you, and I can too.

3. Every source you use should be appropriately documented. It's a good idea to use one of the major citation formats—MLA, APA, Chicago—but I'm not going to be dogmatic about this requirement (though other professors later on might be—so you might want to practice now). [2] I encourage you to hyperlink frequently to your sources, just as you have to blog posts within the thoughtvectors learning community. A hyperlink is the Web equivalent of a footnote. (You have to be sure your link works for an outside audience as well, not just someone with access to VCU's library. More on this soon.)

4. Although there's an extended written component, the entire inquiry project should be as "webby" and "fantic" as you can make it. The idea here is for your project to have a life on the web that goes far beyond what a typical "term paper" would have. So yes, images and video and audio and even animated gifs are fine and even desirable. Be creative! And remember that you want to build your reader's trust in your work, so you'll want to avoid superficiality (though not humor). There is a difference. (See above sentence regarding boring, stuffy, stilted, mannered writing.)

5. I'll be grading your project holistically, which means I'll be thinking primarily about the overall success of the project first, and the contributions to that success second. In other words, I won't be grading each component separately, though I will be paying close attention to how you inspire trust. Thoughtful research, creative presentation,

careful argumentation, responsible citation, and the kind of writing I advocate in item 1: these are elements that inspire trust and confidence. They will help me understand you as a serious thinker and a diligent, creative inquirer. The closer you get to excellence in all these elements, the closer you get to excellence for the entire project.

AS ALWAYS: if you have questions or concerns, please do not hesitate to contact me.

Footnotes:

1. You should strive to be clear and concise, of course. This video demonstrates an extremely helpful process called "The Paramedic Method" that I've used with my students for years with success. (I'm grateful to Richard Lanham for dreaming it up and sharing it freely.) That said, don't make all your sentences short and declarative. Use metaphor, imagery, and a sense of good rhythm to make make your point. Remember: precise, inviting, vivid, and beautiful, with a sense of pleasure in the style.)

2. If you're on rampages,us, you can make footnotes like this very easily: just active the FD Notes plugin, then follow the directions on the plug-in site. A square bracket, a number and a period, the note, and a closing square bracket. It's really that simple.

## Appendix B

## IRB Approval for the Study

UNIVERSITY OF MINNESOTA

Twin Cities Campus

**Human Research Protection Program**

*Office of the Vice President for Research*

*D528 Mayo Memorial Building*
*420 Delaware Street S.E.*
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*E-mail: irb@umn.edu or ibc@umn.edu*
*Website: http://research.umn.edu/subjects/*

June 16, 2014

Suzan Koseoglu Education/Human Development Room 210 LES 6197A 1954 Buford Ave St Paul, MN 55108

RE: "An Ethnographic Case Study of an Open Online Course" IRB Code Number: 1405P50801

Dear Ms. Koseoglu

The Institutional Review Board (IRB) received your response to its stipulations. Since this information satisfies the federal criteria for approval at 45CFR46.111 and the requirements set by the IRB, final approval for the project is noted in our files. Upon receipt of this letter, you may begin your research.

IRB approval of this study includes the consent form and recruitment materials received May 20, 2014.

The IRB would like to stress that subjects who go through the consent process are considered enrolled participants and are counted toward the total number of subjects, even if they have no further participation in the study. Please keep this in mind when calculating the number of subjects you request. This study is currently approved for 100 subjects. If you desire an increase in the number of approved subjects, you will need to make a formal request to the IRB.

For your records and for grant certification purposes, the approval date for the referenced project is June 10, 2014 and the Assurance of Compliance number is FWA00000312 (Fairview Health Systems Research FWA00000325, Gillette Children's Specialty Healthcare FWA00004003). Research projects are subject to continuing review and renewal; approval will expire one year from that date. You will receive a report form two months before the expiration date. If you would like us to send certification of approval to a funding agency, please tell us the name and address of your contact person at the agency.

As Principal Investigator of this project, you are required by federal regulations to inform the IRB of any proposed changes in your research that will affect human subjects. Changes should not be initiated until written IRB approval is received. Unanticipated problems or serious unexpected adverse events should be reported to the IRB as they occur.

The IRB wishes you success with this research. If you have questions, please call the IRB office at 612- 626-5654.

Sincerely,

Christina Dobrovolny, CIP Research Compliance Supervisor CD/bw