# "MOOCing" On Up? Experiences of an Elusive Course Completer

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In this article, I apply autoethnography to recount and analyze my experiences as a recent enrollee and course completer of a massive open online course (MOOC). Research surrounding MOOCs heretofore has been predominantly quantitative in nature, whereas this research utilizes a qualitative approach and offers a student's in-depth perspective. While participating in the course, and in its aftermath, I engaged in systematic observation and reflection. Generally, my experience was positive, prompting me to analyze consistencies and discrepancies between my vantage points and those stemming from emerging MOOC research and media discourse. Most significantly, my lived experience might provide a window into better understanding MOOC access, persistence, and course completion, each of which is central to current discourse regarding MOOCs, including appraisals of their worth. It is hoped that this exploratory research will supplement current research and suggest future research in these areas.

The massive open online course (MOOC), though still quite new, has enticed large numbers of students while commanding attention by the media, the educational establishment, and the public at large. Sentiments surrounding MOOCs are often impassioned, partially due to their perceived status as a disruptive innovation and a sharp departure from traditional means of delivering higher education (Farmer, 2013). Indeed, MOOCs may be in a "hype cycle" (Tapson, 2013, n.p.), which helps to explain their rapid growth and the increasing numbers of higher education institutions that are clamoring to make their presence felt in this new realm. Yet, scholars and pundits scramble to keep pace by contributing insights regarding MOOCs (e.g., regarding their current or prospective merit or worth for students). While such attempts are natural and important, it is certainly premature to draw definitive conclusions on the current and future impact, benefits, and drawbacks of MOOCs, particularly given their present evolution. Therefore, it is incumbent upon scholars to focus their energies upon MOOCs, employing various methodologies, so as to build theory and research findings around them. Thus far, research has been almost exclusively quantitative in nature. Moreover, student-derived scholarly insight is conspicuous in its near-total absence (Reich, 2013). Consequently, in this study I apply autoethnography to situate and analyze my experiences as a course enrollee and completer of a popular MOOC within the incipient cultural and research base. I aim to contribute an in-depth, personal perspective and analysis of experienced MOOC virtues and drawbacks.

In this article I initially review research and discourse surrounding MOOCs, particularly the assessments of their merit or worth for students. Next, I present an overview of autoethnographic methods and describe their application to the present study. Subsequently, I chronologically recount my experiences in the MOOC course, including pertinent context regarding my decision to enroll. I present findings in narrative format, as a set of epiphanies I experienced. This style of

presentation is typical to autoethnography (see Ellis, Adams, & Bochner, 2011). I purposefully write in exploratory fashion, with recognition that my experience is idiosyncratic and that the particular course in which I enrolled cannot adequately represent the array of MOOCs being offered or developed. Yet, such an approach is justified—indeed, necessitated—in view of the dearth of student-generated analyses in the existing literature surrounding MOOCs and the more general scarcity of qualitatively oriented approaches. My participation naturally elicited a variety of thoughts, feelings, and insights, some of which run counter to criticisms that have been leveled against MOOCs.

#### MOOCs and Student Experiences, in Literature and Media

MOOCs are online learning environments featuring "course-like experiences—for example, lectures, labs, discussions, and assessments—for little or no cost" (DeBoer, Ho, Stump, & Breslow, 2014, p. 74). Such courses first launched during the 2011-12 academic year by professors at Stanford University and the Massachusetts Institute of Technology (MIT), have since become models for the three main MOOC providers: Coursera, Udacity, and edX (DeBoer et al., 2014; Pappano, 2012). An increasing number of universities sponsor or otherwise encourage professors to teach these courses, though in many cases MOOC instructors do not receive payment or adjustments to their teaching load. MOOCs are structured to permit participation by virtually unlimited numbers of students, although the number of enrollees varies significantly by course. Some prototypical courses have featured enrollments of over 100,000 (DeBoer et al., 2014). Information regarding MOOCs is being generated and disseminated in an ongoing fashion; in this article, I limit my focus to the students who enroll and their learning experiences.

As noted previously, much of what has been reported about students' learning experiences in MOOCs is quantitative and descriptive in nature (Reich, 2013). For instance, initial reports and explorations provide some information about the number and types (e.g., their characteristics) of students who enroll (DeBoer, Stump, Seaton, & Breslow, 2013); their experiences in the aggregate in some courses (Mackness, Mak, & Williams, 2010); and students' course completion rates (Cusack, 2014; Khalil & Ebner, 2014; Jordan, 2014). Information also is available in regard to different delivery models, the techniques and designs that are used, participating higher education institutions and other organizations, the cost of courses, and course instructors (Anderson & McGreal, 2012; Bell, 2010; Grainger, 2013; Mahraj, 2012). Such information is certainly assistive to those seeking to know more about MOOCs; however, in my view these types of data are ultimately inadequate to address the quality of students' actual course experiences.

Early measures of student participation and completion have raised concerns about the viability of MOOCs, the individuals whom they are reaching, and their persistence throughout the entirety of the course experiences. For instance, Jordan (n.d.) tracked 29 MOOCs and calculated the average completion rate of enrolled students at 6.8%. According to Coursera® co-founder Daphne Koller (2013), student retention rates (presumably signifying course completion) on this platform are approximately 4%. Koller acknowledged, "We can all agree that this would be incredibly low for a 50-seat, on-campus lecture" (n.p.). However, she reframed the data in a more positive fashion, pointing out that completion rates were roughly 24% among students who

expressed at the outset an intention to earn a Statement of Accomplishment, which are offered to learners who successfully meet course requirements (these are not available for all courses, and were not offered as part of the course described in this article). Others (DeBoer et al., 2014) have similarly called for reconceptualization or reinterpretation of common educational metrics, such as course completion, when applied to the MOOC environment. I therefore will address the topic of measuring and appraising MOOCs from a course-completing student's perspective. In this instance, our instructor emailed after the course had finished and reported that about 5% of students (4,445 in total) had completed all assignments and both exams. Thus, I estimate that approximately 89,000 students enrolled in the course I took.

MOOCs also have been evaluated in terms of the students they tend to serve, an analysis that likewise has generated criticism. For instance, Christensen et al. (2013) analyzed survey data from students of 24 Coursera® courses, reporting that more than 80% of respondents had already earned 2- or 4-year degrees and 44% already had attained some graduate education. Such findings have been presented as evidence that MOOCs are largely reaching privileged learners (Kolowich, 2013) and thereby might not serve the democratizing function once thought or hoped. Again, though, the data are contested. Koller (2013), for instance, highlighted that 40% of Coursera® learners are from the developing world, and argued that high levels of early adoption by college-educated students should neither be overly surprising nor concerning. First-generation MOOC users, like other early adopters (Rogers, 1962), likely have more education, a higher socioeconomic status, and more financial resources than later adopters (Perna et al., 2014).

Of concern, Reich (2013) noted a near-absence of qualitative research in the MOOC field, reporting that he was aware of only one interview study that was ongoing in a HarvardX MOOC. Although mountains of quantitative data are now available, qualitative data, particularly in relation to learners, are sorely needed: "These are human learners taking these courses, and their voices matter; it's not just user accounts" (Reich, n.p.). Big data is insufficient (DeBoer et al., 2014); accordingly, "future (MOOC) research requires 'better data'" (Perna et al., 2014, p. 9).

Virtually nonexistent in the literature is a clear sense of individuals' experiences in MOOC learning environments and the relationship of these experiences to some of the predictions and theories regarding MOOCs that are being made or applied elsewhere. For instance, what motivates a student to enroll in a MOOC in general, or in a specific MOOC course? How might this student's enrollment relate to the concept of access that is often raised in discussions about MOOCs, with both positive (Koller, 2013) and negative (Kolowich, 2013) implications? Given relatively low completion rates for most MOOC courses, what factors might explain the persistence of the rare MOOC course completers? What are students' overall learning experiences within MOOC course(s), both positive and negative, and how are these experiences applied or applicable to their personal life or employment? How much content is learned, in relationship to content in similar, brick-and-mortar courses? These are among the questions I will consider through my experience—in some cases, providing personal answers—in the exploratory manner that is most befitting of autoethnographic work.

In the next section, I present a brief overview of autoethnography as a research methodology, including its strengths and limitations, arguing that it is well suited for the current topic. Particularly, I describe the personal narrative form and the mechanics of the layered account.

Subsequently, I utilize autoethnography as I describe my course experiences, from (pre)start to finish, in relationship to the knowledge base and discourse regarding MOOCs. In fact, my discussion begins with the lead-up to signing up for the course, as the question of "who signs up, and why?" is a particularly important one (Christensen et al., 2013).

#### **Research Methods**

I used autoethnography as the research methodology for this study. Autoethnography, a research and writing approach, describes and analyzes one's personal experiences as a means of understanding his/her cultural experiences (Ellis, 2004; Ellis et al., 2011; Holman Jones, 2005). It is certainly a departure from canonical approaches of conducting research (Ellis et al., 2011), perhaps analogous to the departure of MOOC courses from conventional course content delivery approaches. Because a student's participation in a course is a unique cultural experience, autoethnography offers a promising analytical approach. Autoethnography is one of a small but growing set of approaches that "acknowledges and accommodates subjectivity, emotionality, and the researcher's influence on research, rather than hiding from these matters or assuming they don't exist" (Ellis et al., 2011, n.p.).

As a method, autobiography and ethnography are combined to produce autoethnography (Ellis, 2011). In the former, an author selects and describes past experiences, sometimes writing of experienced "epiphanies" (Ellis et al., 2011). In this article, I reflect upon certain experiences and discuss the extent to which they might rise to this level. At certain points, I describe epiphanies, and in others, I describe observations and reflections, leaving the reader to judge their salience.

In ethnography, researchers study cultural practices, values, and beliefs, to help both insiders and outsiders to better understand the culture (Ellis et al., 2011; Maso, 2001). For this study, I completed field notes (Ellis et al., 2011; Geertz, 1973), as well as artifact analysis (Ellis et al., 2011). I engaged in copious note-taking throughout my course participation, including capturing ongoing video screen clippings and maintaining an electronic diary in the form of a Microsoft® OneNote page devoted to my learning experiences. Each time a new topic or slide was presented while I watched the course lecture and lab videos, I used the insert screen clipping function in Microsoft® OneNote to capture a shot of the screen and maintain it on my course notes page. I also used the function to permanently capture relevant portions of the course web page, including the syllabus, the glossary, and a list of frequently asked questions. All screen shots were date and time-stamped. Thus, I was able to capture in real time and also reconstruct my lived experiences as a MOOC student.

I functioned simultaneously as researcher and student, striving both to learn the content and consider my experience analytically. Such an arrangement is common within autoethnographic research. The author usually lives through the reported experiences for reasons that go beyond simply gaining an object for writing and research; thereby, the author often relies upon hindsight to pull together their experiences (Bruner, 1993; Denzin, 1989; Ellis et al., 2011; Freeman, 2004). To aid with recall, the author might consult artifacts such as photographs or journals, or might interview others (Delany, 2004; Didion, 2005; Ellis et al., 2011; Goodall, 2006; Herrmann, 2005). Although I also relied upon hindsight to cohere my reflections, I maintained an extensive

electronic trail, which consisted of completed assignments, the course page, screen shots, and my personal notes, records, and reflective writings.

Autoethnography, like ethnography, requires "thick description" of a culture or experience(s) (Geertz, 1973, p. 10), which functions to improve understanding for both insiders and outsiders (Ellis et al., 2011; Jorgenson, 2002). The description, in turn, should be evocative and accessible. At its base, the researcher must discern and describe patterns about a particular culture, employing the elements of storytelling (Ellis et al., 2011). In the context of social science research, autoethnography is generally subject to the requirement that it include a strong analytical component (Ellis et al., 2011). This aspect, in turn, often includes connection-making to the broader literature surrounding a topic (Charmaz, 1983). Thus, the task before the autoethnographer is not simply to tell a story but also to attend to its utility for enhancing others' understandings by productively and credibly incorporating literature and other analytic tools/strategies as needed. One way to do so is to build a layered account, with simultaneous collection and analysis of data and the use of existing literature to raise questions and make comparisons (Charmaz, 1983; Ellis et al., 2011).

I pursued a layered account approach, striving to situate my lived experiences within the emergent literature and discourse surrounding MOOC courses. I relied upon my notes and record-keeping while a student, as well as bi-weekly reflections occurring during my enrollment and in its aftermath. For triangulation purposes, I also reviewed pertinent email and short message service (SMS) records. While completing the course, I frequently sought and reviewed articles in the media (see, for example, Konnikova, 2014; Lewin, 2013) regarding MOOCs, noting the many controversies and competing interpretations concerning their merit and worth. Upon completion of the course, I alternated between three main activities as I built a descriptive, analytical account of my lived experiences as a MOOC student and course completer. First, I carefully reviewed my notes, reflections, and other data to identify patterns related to my experience. Second, I conducted an extensive literature review regarding MOOCs and made comparisons to my own notes and reflections. Doing so assured that I was cognizant of, and adequately reflected upon, my experiences relating to the key questions and themes pertaining to students' experiences. Lastly, I contributed additional reflections, assembled in hindsight and integrating pertinent literature and discourse. I found it to be helpful in many cases to compare and contrast my experiences in traditional coursework to my experiences in the MOOC course.

In the next section I present personal experiences and reflections surrounding my participation in a MOOC course, within the context of existing literature and discourse.

#### **My MOOC Experience in Context**

# The Lead-Up

On September 20, 2013, I took two important, interrelated steps. First, I signed up with Coursera®, one of a small set of providers that feature MOOCs for little or no cost (DeBoer et al., 2014). Second, I "enrolled" in an introductory MOOC statistics course. Why did I do it? To answer this question, I describe some features of myself, including my career goals.

Who I am shapes my experiences and interpretations in all instances, including taking this course. I am a White male, currently 34 years of age, recently married, and a product of public schools, who grew up in a small city in rural Wisconsin. I have been somewhat of a perpetual student, yet I have simultaneously maintained steady, full-time employment in increasingly leadership-oriented positions since the age of 24. I worked as a school psychologist initially and then transitioned into school district administrative roles. To accommodate that shift, I enrolled in and completed a cohort Master's program in educational leadership. Shortly thereafter, I decided to apply for and enroll in a doctoral program in educational leadership at a major research university. I began the program in Summer 2010. I intended to earn a doctorate eventually and reasoned that this would be an optimal time to do so (as yet unmarried, childless, etc.).

In time, above all else I came to wish to become a professor—to one day teach aspiring educational leaders at a college or university level. I had also become increasingly interested in the research and knowledge generation that was ongoing in this and related fields and I aspired to enhance my own research skills. Consequently, I pursued a program shift, from an offsite, cohort-based Doctor of Education educational leadership degree program to a campus-based Doctor of Philosophy educational leadership degree program. Various preparations, job changes, and a physical move were required, yet in the end my wife and I successfully relocated in early August 2013 to the university's main campus.

#### **Problem and Solution**

A fourth-year graduate student, determined to graduate at the end of his fifth year, I came in with unambiguous objectives, foremost of which was the desire to significantly and efficiently boost my research skills. In particular, I wished to augment my knowledge and applications of statistics, so that I could more effectively conduct research. As an off-campus cohort student, these opportunities were fairly limited, and I assumed that I would be relatively unencumbered as an on-campus graduate student. All the rest (e.g., specifically how I would meet this goal) was uncertain.

Inexperienced as an on-campus student, I signed up for Fall 2013 semester courses in early August, assuming that I could easily get into whatever courses I wished; later, I learned that some of my assumptions, including this, were naïve. One course, for which I registered, a high-level statistics course, seemed like a bad fit from the outset. Quickly, I learned that I had failed to complete three prerequisites. Making matters worse, another course for which I was qualified was at capacity. Moreover, even if it were possible to beg my way into it after having missed the first week, the early reviews from enrolled students were unfavorable in terms of their learning experiences. Thus, I found myself in a bind. I knew that I would need to drop my statistics course, with no viable replacement options. Yet, my goal of developing expertise in this area stubbornly remained. In fact, in my mind, in order to successfully secure a professorship in a research university, it would be essential that I build these skills. By this time, securing such employment in the future was not a lukewarm preference, but a conviction. This overview provides the backdrop against which I sought out alternatives through Web surfing, stumbled upon the Coursera® site and their listing of available courses, and signed up for the Coursera® introductory statistics course.

#### The Class Begins

The class began on September 22, days after I signed up. The syllabus appeared to be ambitious: Although it was an introductory course, in the span of twelve weeks it covered a large set of statistical tests and associated concepts and aimed at building our understanding and ability to actually perform analyses and reasonably interpret results. I had taken a couple of statistics courses and research methods courses in the past; however, I had not formally advanced past beginner levels. I had, however, been self-taught to some degree in statistics, as my jobs have required me to conduct educational research and data analysis with some regularity. Occasionally, I would phone a friend to help with ideas or analyses. Still, I often wondered what "could be" if I knew more: Perhaps I would be able to ask and answer more complex questions, could conduct more valuable research, and ultimately would be more employable in my desired career pathway. I determined that I needed more, even if only some valuable review while I waited for more opportunities, and hopefully new learning.

### My MOOC Experience: Epiphanies

Epiphany One. The MOOC course is providing a great learning experience. The setup of the course and hosting environment were well organized, structured for efficient learning, intuitive, and user-friendly. This was my first (borderline) epiphany. In retrospect, I was experiencing a breakthrough at about that time, because I had encountered a new tool, a new way to learn for free and at my pleasure and pace. I was not yet certain how much learning would occur, but I was quickly convinced of the potential for learning within this environment. The basic course structure was as follows: For each of 12 consecutive weeks, students would have access to two recorded video lectures (usually broken into smaller segments), to be viewed at our convenience, and one video lab. In total, the lectures and labs included about 40-45 minutes of instruction. Importantly, the video playing technology affords the option of speeding or slowing the viewing speed, thereby increasing or decreasing viewing times. I found this feature to be quite helpful. When material was familiar to me, I would increase the viewing speed. Conversely, when a difficult concept was being presented, I would slow the speed and/or re-watch the segment. The lab sessions included data files and accompanying scripts, which could be used while following along. Then, each week (due on Sundays, with soft and hard deadlines) we would complete a quiz that required conducting analyses using a downloadable data file and answering a combination of multiple-choice and simple input items.

An email I sent to a quantitatively-oriented, longtime friend and fellow graduate student on September 23—just one day after sign-up and initial engagement with the course—illustrates my dawning awareness that I might have stumbled upon something with utility:

Hi.

I'm taking a mooc from the coursera (sic) site, Statistics I. Check it out if you are interested. So far it is basic but it will go [through] quite a few concepts over 12 weeks and includes labs using "R"... I think I need the hand holding of a structured intro to R and am hoping this will help.

An analysis of my notes over time shows signs of increasing engagement with, and excitement about, the course content: My notes were increasingly detailed, with increased exclamations and

use of highlighting. I took screenshots of every change of screen (e.g., a new PowerPoint slide during lectures or a new vantage point of statistical program editor or console during labs), and I would often add personal notes. For instance, on October 2, I wrote, "Variation is a good thing! Variance is information in statistics... it allows us to investigate covariance and correlation."

My first intentional reflective writing session took place on October 4, two weeks into the course. I wrote about the "convenience of being able to participate at any time," and the "ability to watch, re-watch, speed up, and slow down the videos." I added, "Compared to [traditional] courses, I can move much more efficiently through the material and zero in on what I need to learn." The statistical content was mostly "review of [what I already knew]," with one major exception: "I am learning a new statistical program and coding language." Because this program is "free [of cost] and widely used," I felt "fortunate" and further noted: "I would not be having this much success [learning R] without [this course]." On November 1, I elaborated further on a similar theme: "R appears to have nearly limitless potential. It is not difficult to do a Google search and find a solution" to issues because of the "large and helpful community" of users.

I began to make connections to my own, outside-of-class research. On October 6, after watching a video segment regarding correlation, I wrote and highlighted, "Correlation in my own research was .22—Spearman [correlation] could be valuable for project I was thinking of..." On November 1, a day in which I earned a 90% (9 of 10 points) on the weekly quiz, I made extensive, self-reflective notes while trying to solve the assessment problems. For instance, to solve one item I wrote, "Here I first need to dummy code the categorical value "profession" [so] I will create a new variable prof.code." Then, I wrote, "Now I will create a new model..." before entering the code, "model3 <- lm(salary\$salary ~ salary\$years + salary\$courses + (prof.code))." Next, I clearly marked the output. Afterwards, I reflected that I was "gaining confidence" and "enjoying the challenges" associated with course participation.

By the end of the course, I was using a new statistical language, albeit not yet with native-like fluency. I had enjoyed the experience and my growing comprehension of statistics. On December 13, for instance, I began an SMS exchange with my statistics friend, who served as a solid background figure throughout the course, by indicating, "Yo mama has kurtosis." Kurtosis, I had learned, is a measure of the peakedness (versus flatness) of a distribution. I also thought it sounded like some type of disease. My friend's reply, geared toward my mother, was more clever though less printable. We were by this point regularly dialoging about statistics problems and helping one another. Although the assistance was slanted to my needs, I at least tried to reciprocate. For instance, on October 3, I emailed the following message:

thanks for the r help yesterday! // just in case this is helpful: // do you have the packages "psych" and "sm"? they are both good // sm has something called describeBy... // and if you type edit(filename) when data is loaded, you can actually see the data in nice spreadsheet form. But it's an editor so you have to watch it.

Regarding assessments, I was impressed at their applied nature and the ingenuity of measuring my (and peers') ability to apply the learning to solve statistical problems. The anticipation of these assessments motivated me: I knew that, at the conclusion of each week, my learning would be put to the test. Although not the subject of this study, MOOC assessments do appear to represent important dimensions for further analysis. Presumably, their quality and nature vary

significantly across courses, and different subject areas (e.g., humanities, in which multiple choice or simple input items are non-preferred) might present distinct challenges (Sandeen, 2013).

Epiphany Two: Instructor's approach and demeanor matters. The instructor's approach and demeanor was notably positive and relatively warm and personal, which I can state with more confidence now that I have subsequently experienced portions of four other MOOCs distinctly<sup>1</sup>. For instance, I have since observed that some MOOC instructors either do not, or very rarely, step in front of the camera; rather, we just see a computer screen, with voiceover. In this course, however, the instructor physically comprised part of the screen during large portions of each lecture, which is shown in Figure 1. He had a calm and positive demeanor, and he regularly injected humor into his presentations. During labs, the computer screen (showing the R statistical computation and graphics system in action) took center stage, with voiceover by the instructor. As a result, I have come to the following somewhat obvious, but still important, conclusion: The way in which MOOC material is delivered, and the way in which the instructor connects with the students, matters. About midway through the course, I noted, the instructor "makes stats unintimidating" and "he doesn't get us overly bogged down by the math [and he] focuses on applications and concepts instead." In the end, researchers may discover, much of what is identified as good teaching in a brick-and-mortar setting transfers to this setting. Yet, it seems that new considerations, such as the instructor's visibility in the video lectures, also enter into play. It is more difficult for a student to establish personal connections with a professor of a MOOC than in a traditional classroom; within this context, perhaps the little things (for instance, instructor warmth and encouragement, or on-screen visibility) are extra significant.

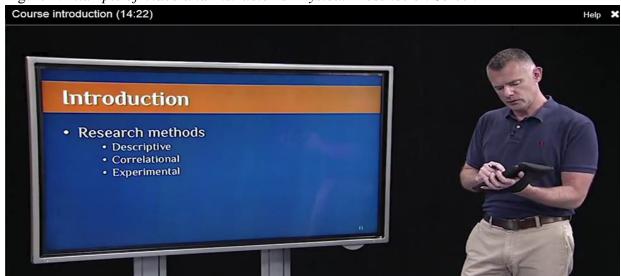


Figure 1. Example of Video and Instructor's Physical Presence on Screen

In a related vein, I soon concluded this instructor was exceptional: highly knowledgeable, empathetic to statistical learners' needs, and impressively skilled at organizing, conveying, simplifying, and communicating concepts. The instructor, Dr. Andy Conway, is a senior lecturer

<sup>&</sup>lt;sup>1</sup> I have enrolled in four MOOC courses since completing this one, and have failed to complete each of them. However, I derived learning gains from at least three of the four, as I will describe later.

in psychology at Princeton University and statistical consultant in his department. His research focuses upon working memory. On November 18, I marveled at the "breadth and depth of content that is getting covered" and the instructor's ability to "make the concepts understandable." Also, I was impressed by the naturalness with which "the material seem[ed] to build." Thoughts like these comprised epiphany two: With MOOCs, students may have elevated opportunities to learn from the best in the business in a low-pressure environment. Moreover, MOOCs may be injecting some positive pressure into the higher education system. It is perhaps a rare quality among academics, who appear to comprise nearly all Coursera® MOOC instructors at present, to be masterful both at knowing and teaching a subject matter. I have had generally positive experiences in my statistics classes heretofore, but they paled in comparison relative to the material covered, the elegance and efficiency within which it was taught, and the amount of applied learning that occurred through this MOOC experience. Generalizing from one case is problematic, but I would tentatively advance that the MOOC forum tends to attract some of the strongest instructors in higher education. I am not the first to have made this conjecture. Scholar and MOOC instructor Kevin Werbach discussed the "rock-star meme" (2013, n.p.) surrounding him and others who teach these highly popular MOOCs. Werbach laments this development and I may be contributing to it, but I suspect a mark of truth. Moreover, the infusion of MOOCs into the menu of learning options might influence the higher education community of professors as a whole.

For example, French (2012a) relayed MOOC instructor and renowned professor and researcher David Patterson's comments at the July 2012 Microsoft Research Faculty Summit. Patterson stated MOOCs might "raise the bar for bad teachers" because "students will vote with their feet" (n.p.). Further, he observed (French, 2012b) that MOOCs are causing college professors to *discuss* teaching—implying that they had tended not to do so before. In any case, participation in a MOOC felt different to me as a student, and has caused me to reflect at length about MOOCs and conventional course distinctions. Below, I reflect upon some differences between MOOCs and conventional college/university courses, considered from theoretical and structural perspectives.

Researchers should consider the differential impact of market forces and other mechanisms on MOOC courses relative to those of conventionally delivered courses. Those who teach MOOCs are doing so in a boldly public fashion, meaning that their mistakes and their successes will be magnified. Thus, considerable courage is probably needed to develop and deliver a large, open course. As such, accountability seems to be tilted toward the instructor and away from the student, who is taking the course for free (or at low cost, depending upon the provider and course), as casually as h/she pleases, absent any obvious consequences for failing to complete or "succeed" in the course. As a MOOC student, the experience revolved around my personal learning goals, with no thought of what letter grade I would earn or my movement toward a college degree. When I participated, nearly nobody knew about it, and the only immediate consequences for poor performance or dropout would have been self-imposed and psychological. The instructor, on the other hand, appears to operate in an arena potentially fraught with both risk (e.g., public humiliation) and reward (e.g., public acclaim and students' gratitude). Meanwhile, instructors are, or inevitably will be, in competition with other MOOC instructors for students, positive reviews, and perhaps even reputation and prestige as an authoritative expert or outstanding educator. Potentially at least, a win-win situation is operative: Students stand to win

desired learning and instructors stand to win increased visibility and prestige. Still, we should not discount the altruistic or value-driven reasons why some instructors may choose to teach. Peng and Leek (2012), for instance, described their interest in enhancing the public accessibility of science as driving them to step forward as MOOC instructors. These positive motivations, likewise, may further grow the market and improve MOOC quality.

By contrast, a brick-and-mortar college or university faculty member who teaches a smaller set of students operates with different risk-reward structures, and accountability is more so shared by students who are invariably pursuing a program of study. The brick-and-mortar instructor, too, even if their teaching is of lower quality, may gain favor from students—in the form of higher end-of-course teaching evaluations—for being affable or for more readily assigning "A" grades to students who desire, above all, to progress toward graduation. Also, instructors benefit from additional leverage over students in many instances. They might advise the students, know the students' advisors, or operate within a small department in which word travels quickly about students.

Epiphany Three: MOOC student access and outcome measures require careful interpretation. My third epiphany did not fully materialize until mid-March 2014, after I had completed the course and after I had contemplated my experiences in the context of critical scholarly literature and media discourse. I reflected in my notes that the traditional concepts and measures of student access and success, when applied to MOOCs, "need to be abandoned or interpreted with care." Some (Kolowich, 2013) have questioned the extent of MOOC access based upon on data suggesting that MOOCs are "largely reaching privileged learners," including large percentages who already possess college degrees. Describing Christensen et al.'s (2013) recent analysis of MOOC student characteristics, Kolowich (2013) understandably raises questions of MOOC access and presents these data as a counterpoint to the stated, access-related goals of MOOC founders. Related, others have taken low course completion rates (e.g., the 5% completion reported by Reich & Ho, 2014) as evidence that MOOCs may not be adequately meeting students' needs.

Although I also pause upon review of these data, it strikes me as improper to allow these metrics to overly taint prevailing views regarding MOOCs. For starters, a MOOC had plainly afforded *me* terrific and free access to a full, well-designed course, taught by an expert researcher/statistician and instructor, covering a set of topics within a timeframe that I felt I urgently needed. Thus, while MOOC access and merit has been heavily questioned from the perspectives of some who have noticed student characteristics and completion rates (Kolowich, 2013), my positive experience seems to run counter to the prevailing wisdom. Reflecting more deeply, I realize I have historically been geographically bound in my college selection processes: I have always lived in the Midwestern United States and limited my universe of prospective colleges accordingly. Now, with Coursera®, geographic boundaries have disappeared. I was accessing something that would have been out of my reach. And, there are no guarantees that I could be admitted into Princeton, with the opportunity to enroll in a course with Dr. Conway. Going further, even if I did attend this elite university (which is highly selective, admitting only a fraction of applicants who tend to come from privileged backgrounds), some other commitments or factors might have limited my access to a course of my choosing.

Consequently, I felt lucky to be part of the course nearly from the outset. In fact, reviewing my reflections, I was consistent in expressing my gratitude and good fortune. This leads me to encourage those who are aiming to understand and interpret MOOCs to consider the positive implications of massive, free access to desired coursework. I also would ask others to consider that, even had I not completed the course, it is very likely I would have learned something valuable. Indeed, I suspect that many "non-completers" are profiting, in much the way that I did when I casually enrolled in MOOC courses since completing this one. As a student in those subsequent courses, I tended to zero in on weekly topics that were pertinent to my needs, ignoring content (and associated assignments) that I felt I already knew or that fell outside of my interests/needs.

Thus, I did not take for granted my convenient access, and my mind has been opened beyond thinking of the concept of access as simply meant for certain groups of students. Traditional issues of time (when the learning occurs), quantity (how many can enroll), and space (where do meetings occur), which have stubbornly functioned to limit access to education in the past, do indeed mostly drop off with MOOCs. Turning outward, I project that anyone else who had internet access, interest, and time could have achieved this same access that I enjoyed. And, although the completion percentages might not seem favorable at first blush, perhaps that thinking is wrongheaded in light of the more important fact that MOOCs can accommodate virtually anyone who wishes to take part: Twenty percent of 100,000, for instance, means that 20,000 non-college graduates were exposed to "x" high-level material. As I see it, that is a good thing. To summarize, I am arguing for a more expansive application of the access concept, and a different way of interpreting participation statistics. MOOCs, to me, are much more virtuous than they have often been portrayed.

Others have begun to make similar observations and arguments with respect to access and student benefits. Importantly, they have focused upon issues inherent in metrics such as course completion rates, which they argue may not be appropriately applied to MOOCs. Reich and Ho (2014), for instance, recently highlighted the difficult task of measuring and defining MOOC success. They argue that while completion rates have been relatively important metrics for college course and program delivery, they are incomplete or misleading when applied to MOOCs. Going further, they assert that completion rates threaten to undermine the worthy goals of educational access that fueled MOOC creation. They view "dropping out" in this context not as a failure but as a natural outcome of a uniquely open and free environment. It is possible to structure course enrollment in ways that would increase course completion rates, but doing so would undermine a larger goal of the MOOCs: to maximize access to the course material. It is not at all problematic from an access mindset if a significant fraction of students are casually enrolling or taking a noncommittal approach toward completion. On the other hand, such a state of affairs reflects poorly on course completion metrics, if not interpreted in proper view of primary MOOC goals.

Likewise, Haber (2013) reflected on course completion rates (and/or the flip side: attrition rates) and concluded that it is a misleading metric. He described analyses by Pomerantz (2013), who had offered a popular MOOC and analyzed data based on students' intention to complete a course, versus merely signing up for it. Pomerantz reported course completion results, analyzed by a variety of student subtypes—those who merely signed up (5% completion rate), those who

viewed at least one video (15% completion), and those who completed at least one assignment (48%). Pomerantz determined that the number of students who completed the course was roughly equal to the total number of students he had taught to that point in his entire career. Meanwhile, the number of students who were active in the MOOC was "approximately an order of magnitude more" than he had to that point taught. Appropriately, he advised: "Contemplate that" (Pomerantz, n.p., italics in original). Indeed, Koller, Ng, Chuong, and Chen (2013) found that even with low completion rates, MOOC course completers routinely dwarf the number of "completers" of traditional courses, given the number of registrants. I suspect that, as researchers learn more about course completers, they may find students differ in some nontrivial ways from those they have tended to teach at their higher education institutions. Many MOOC instructors hail from highly selective, elite, and often highly expensive institutions that have sacrificed access in favor of highly selective admissions standards. Most likely, they tend to teach a subset of students that is less diverse on any given characteristic (e.g., age, nationality, prerequisite knowledge) than those they might teach in a MOOC.

### Additional Reflections on My MOOC Experience

# Why Did I Finish? And, Did It Matter?

All of the above notwithstanding, I submit that completing something is usually positive. As an elusive course completer, I may be able to partially answer some key questions. Why did I finish? Second, did it matter that I finished?

With respect to the first question, perhaps most importantly, I completed the course because I was determined to do so from the outset. I felt a sense of urgency to learn and/or at least maintain knowledge in the field of statistics, which I deemed to be important to my immediate future. My motivation was high and completing the course was a non-negotiable personal goal. In retrospect, however, I am sure I would have dropped out and found a way to rationalize it, had the course material proven to be unhelpful, boring, or too difficult. So, it seems important that the course material was within my skill level and interesting to me. I was able to bring some prior knowledge to bear on nearly all course topics. Although the course did not require such prior knowledge, I think it was assistive. Lastly, I received a helping hand from a friend—outside of the course, in my case—when I experienced difficulty with a basic and necessary task: I was unable to load a text file into the statistical program. I called my friend and he talked me through it. I must acknowledge that, without this timely help, it is possible that I would have dropped out of the course early on. My experience underscores the importance that MOOC students are clearly instructed in basic, essential operational tasks at the beginning of the course, and that learners are made keenly aware of available supports (such as the course discussion board, described later) early on. When courses are open to all students, any assumptions regarding their prerequisite skills and knowledge are made at the peril of some learners.

Next, I reflected upon whether or not it mattered that I completed the course. Unequivocally, yes—it mattered. I felt a personal sense of satisfaction and accomplishment for sticking with it. It required quite a bit of self-discipline, time, and sacrifice. I was simultaneously employed full-time, married, and taking a full graduate course load, yet managed to fulfill the course responsibilities. I did not receive any credit or a certificate of completion (these were not offered

for this course), but that was inconsequential: I experienced personal satisfaction. Most importantly, I learned a lot. I can now at least basically use an important statistical analysis program to perform a variety of analyses and graphing functions. In fact, I have already incorporated my newfound knowledge into my job, answering an important question by completing mediation and moderation analyses while applying multiple regression techniques. As well, as part of my PhD program I am pursuing a small number of research projects, and I am utilizing the "R" program to manipulate data and address quantitative research questions. I now have foundational understanding from which to build, should I summon the desire and the resourcefulness to do so. Lastly, I now have prior positive experience and confidence regarding this mode of learning, and expect I will continue to frequent MOOCs in the future. As someone who values learning above nearly all else, this opening of new doors is precious to me.

# **MOOCs: The Flip Side**

Clearly, I have become a supporter of the MOOC based upon my own experiences. Yet, it is important to point out some limitations, in my view. First, I remain troubled by the data regarding access and completion that I cited earlier. Ideally, completion rates would be higher, and a more diverse array of students would be enrolling in these courses. Otherwise, it is possible that MOOCs will contribute in some way to a "rich get richer" type of outcome. I suspect that part of the issue might derive from the fact that MOOCs, as currently structured, require varied qualities of students. First, students must be aware of the fact that MOOCs exist, in general, or that a particular MOOC is being offered. Secondly, students must value the potential learning. Third, and most important, students must summon or rely upon self-motivation and self-driven learning to a much greater extent than in conventional postsecondary courses. There is nobody, as currently structured, to hold the student accountable: The material and the assignments are provided and the student may choose to continue or stop at any point. I have now also experienced MOOC non-completion, having enrolled casually in a few courses that did not so nicely align with my interests, talents, and needs. Thereby, my views on MOOCs have sobered somewhat in recent months.

Related, a personal relationship with the instructor of a MOOC is virtually inconceivable. The instructor does quite a bit of front-end work, I assume, but does not personally interact with students. Assessments are automated; videos are created and housed, etc. This weakness regarding the teacher-student relationship may negatively impact some students and might constrain the maximum benefit of participation in a course. In my view, this feature of MOOCs is not necessarily a drawback: It just *is*. Interestingly, fellow students appear to be filling some of this void by helping one another via discussion boards, which I will address below.

The extreme positive limit of what can be accomplished in a MOOC is thus probably somewhat less than the limit of what can be accomplished in a conventional class. Invariably, a conventional class instructor is able to devote much more time to and share much more nuanced, individualized feedback with students. Also, one could design and incorporate in-person activities that may not be possible in a MOOC environment. For instance, in the past semester I was enrolled in an evaluation course at my university that actually allowed me to participate, within a group and under a professor's supervision, in an evaluation of a local food bank. I was

involved in an incredibly rich experience, and I cannot fathom this possibility in a MOOC format.

Although low completion rates are probably somewhat a reflection of the unique, wide-open nature of MOOCs, course design characteristics and pedagogical approaches are likely influential as well (Baxter, 2012; Perna et al., 2014). Future research will be necessary to understand how course design and instructional factors influence student outcomes (Perna et al., 2014). The present study suggests a number of dimensions of potential interest, including the professor's visibility on camera, the clarity and comprehensiveness of foundational content coverage, and emphasizing for learners the usefulness of the discussion board and other forms of support.

Lastly, the issue of earning college credit for MOOCs is non-trivial. I did not need credit or certification of my learning, but others might desire it. Interestingly, I do not believe that there is any way I could provide unequivocal evidence that I completed the course, based upon the way it is structured and the documentation afforded me. This arrangement comes with virtues and drawbacks. On the positive side, it allowed me (and, presumably, others) to simply focus on learning in a low-pressure environment. I can also imagine that, if and when certification or credit is routinely offered, issues of cheating on assessments will become increasingly salient. It may prove to be quite difficult or even impossible, to design assessments that are entirely cheating-proof, which could prove to be a stubborn issue in time.

# A Final Observation, Regarding Discussion Boards

I was a late discoverer of the MOOC discussion board as a powerful tool for students, because it was not until late in the course that I took the time to examine it. Many students were using the board to seek and receive assistance from peers, to discuss certain learning experiences, or to pose administrative or logistical questions, among other things. I had experienced difficulty with a weekly test item, and a search for answers brought me to the board. One of my peers explained very clearly to someone else, who had experienced the same issue, how to solve the problem and even explained the error in our approach. So, while the instructor does not have time to assist students with individualized issues, one's peers can be an invaluable resource. With tens of thousands of peers, it is probable that someone else is having a similar experience and/or is willing to offer a helping hand. Students in the MOOCs, generally speaking, are sharing similar learning experiences and may be great resources for one another. Future research should closely examine the discussion board as a tool, and instructors may do well to encourage its liberal use and/or consider how to best harness it. In fact, I would argue that the limits of MOOCs might be at least in part offset if discussion boards are fully leveraged a means of giving and receiving peer-to-peer feedback and forging relationships.

I should note that I did not make any contributions to the discussion board. This nonparticipation closely tracks my habits on social media, where I tend to be a passive reader rather than a contributor. Nonetheless, my experience with the discussion board made me think about the possibility of developing an online community as part of MOOC participation. Also, I would like to know more about those highly engaged students who regularly help their peers; I suspect that these are learners who already command the material and might simply be brushing up their own

skills, or who are just wishing to help others who are taking an initial foray into an area of interest. These are all just half-formed thoughts but should be ripe for future research.

#### Conclusion

In this article, I applied auto-ethnography to analyze and describe my recent experience as a participant and completer of a popular introductory statistics MOOC that was offered by Coursera®. In the process of experiencing the course, I advanced a number of observations that might contribute to the current, developing literature regarding MOOCs, and perhaps to those who are considering engaging as MOOC instructors or students. Perhaps most significantly, my experiences helped me to recognize the terrific potential of MOOCs as learning environments for students and caused me to reflect at length on concepts of access and course completion as applied to this topic. I analyzed my own experiences against current literature and discourse, including arguments that have been advanced regarding the success, or lack thereof, of MOOCs. My experience leads me to align with researchers (e.g., DeBoer et al., 2014) who have begun to argue for reconceptualization of the metrics used to gauge the success of courses in MOOC course environments.

As well, I shared experiences with the learning material and instructor, context in the lead-up to my enrollment, some contemplation of why I completed the course, and the significance of course completion. It is hoped that this article will contribute uniquely to teachers', students', and researchers' understanding of MOOCs from an important perspective: that of the student. Additionally, I hope that this research will call attention to the need for more qualitative research in this developing research arena. My MOOC experience has heightened rather than dampened my enthusiasm regarding their potential as learning tools. I expect further growth and success with these courses, particularly if scholars, sponsors, and instructors are reflective about nuances with respect to this new forum and attentive and responsive to the observations and experiences of students.

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