

The Pedagogy of Precarity: Laboring to Learn in the New Economy

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The Pedagogy of Precarity: Laboring to Learn in the New Economy

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The relationship between learning and labor has long been a topic of concern for sociologists of education. In this dissertation, I conduct an ethnography of open learning in the United States following the 2008 economic crisis and argue that a new style of learning is emerging amidst changes in the labor market. I call that new style of learning the pedagogy of precarity and emphasize that it challenges credentialism (Collins, 1979), or how U.S. society confers status, jobs, and life chances according to one's accumulation of academic qualifications. This study is the first sociological ethnography of open learning conducted from the vantage point of learners (Ito et al, 2009) and offers a perspective of how mostly digitally mediated learning practices are utilized within the growing precarity of the new economy.

In this dissertation, I show how a sample of open learners sought a different way to connect their learning to their labor when neither felt valuable after the 2008 crisis and subsequent recession. Engaging literatures in the sociology of education, economic sociology, and cultural sociology, this dissertation expands upon the concept of the precariat (Standing, 2011; Gill and Pratt, 2008) in order to explain how "entrepreneurial vagueness" emerges from lived experiences of precariousness. Entrepreneurial vagueness works to buffer subjective status aspirations amidst dwindling objective life chances in the new economy (Bourdieu, 1984a; Sennett, 1998; 2006). In my study, precarity becomes pedagogized (Bernstein, 1996; 2001) and participants "labor to learn" rather than learn to

labor. The pedagogy of precarity relies upon autodidactic communalism (Pearce, 1996), a model for learning that puts the burden of self-education on the individual and the community that she can access by successfully adopting a “habitus of trainability” (Bourdieu, 1984a; Bernstein, 1996; 2001). This burden is hard work, but is also described as enjoyable and life giving.

The pedagogy of precarity instilled quasi-dignity as participants learned to embody the habitus of trainability. The habitus of trainability entailed developing a taste for usefulness, a taste for craftsmanship, and a taste for association. However, these tastes are not separate from a taste for risk (Neff, 2012; McMillan Cottom, 2017), and thus the pedagogy of precarity lacks sustainability. The findings are relevant to other studies of institutional challenge through peer-to-peer connection as well as work regarding the future of higher education in the new economy.

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1.0 COMING ALIVE: AN INTRODUCTION

“While the living thing may easily be crushed by superior force, it none the less tries to turn the energies which act upon it into means of its own further existence. If it cannot do so, it does not just split into smaller pieces...but loses its identity as a living thing.” – John Dewey¹, “Education as a Necessity of Life”

Molly was so excited to tell me about her open learning when we first talked that I could barely get a word in. Each interview went down a similar path: first, we talked about the easy stuff, like how she had heard about open learning or what sites she was using. Then, she described how she was learning and told me a bit about her experiences with education in general. Later, buried deep in my interview script, I would ask her the question that required a level of trust to be established before asking: had she been affected by the 2008 financial crisis and economic recession that started in 2009? Molly, a white woman who was 29 years old when we first spoke, had graduated during the recession and was unable to find a job in her field, despite having just completed a Masters degree in career counseling. There was an ugly irony there – a career counselor without a career – but at the time of our interview, Molly talked about it like it was the best thing that had happened to her. After learning that her field was not hiring, she took a low-paying job in a field that was hiring, pre-school teaching, and kept moving. Before long, Molly was blogging about educational philosophy and pre-school child

¹ From Democracy in Education (2016), pg. 3

development after educating herself through various online and offline content sources.

When we first connected, Molly spoke as an expert, but had no credentials in her new area of expertise. Instead, she had a very well curated Pinterest page and an active blog.

As Molly explained it, the financial downturn demanded that she “come alive”:

One of my favorite quotes by Howard Thurman says, ‘don’t ask what the world needs, ask what makes you come alive. Because what the world needs is people who have come alive.’ And I feel like that’s what the financial downturn has demanded of us.

Her choice to pair the words of a theologian who spiritually advised Dr. Martin Luther King, Jr. with the financial downturn of 2008 might seem like an odd use of Thurman’s words. Yet, Thurman’s call for people to come alive stuck with her as she navigated job-scarcity in a post-recession economy while carrying over \$100,000 in student loan debt. There was a palpable weight at this moment in the interview in particular. She spoke proudly of the choices she made amidst the uncertainty of a labor market that did not value her expensive graduate degree. Despite her optimism, it was not hard to imagine what caused the heavy silence behind her pride: unavoidable and omnipresent economic uncertainty. Molly mediated that uncertainty with open learning, a practice that utilizes free or low cost resources for learning that are some combination of open-access, peer-driven, shareable, and digitally mediated. Since undertaking her open learning, Molly ditched her well laid plans about working as a career counselor and instead dreamt of one day owning a pre-school education center on a farm with her fiancé. There, Molly would build a learning environment based on a community-centered educational philosophy she had been teaching herself through open learning. At the moment, she was already piloting the idea on a farm with the pre-school aged child of the farmers who were housing her and her boyfriend in exchange for labor. On such a small scale, she could iteratively try

out what she was learning and test ideas to see if they worked or not, before tweaking and trying again. When not testing her ideas, she was writing about them. Through social media, she created a virtual community of educators that helped her find new resources and refine her thinking. Open learning helped Molly connect and come alive, even amidst the superior force of economic uncertainty.

I did not expect to find such “alive” people when I started interviews about open learning. Like any trendy practice, I anticipated that I would find the usual crowd of lively evangelists who would excitedly tell me how their thing, in this case open learning, would solve all of the world’s problems. I did find them, but they were in the minority in this study. In the majority were young people who were using open learning as a way to buffer the economic effects of the crisis and subsequent recession that had left so many of them unemployed, underemployed, or fearful that they would graduate into a bad labor market. Among them, I expected to find a justified sense of despair and possibly hopelessness. After all, they were coming of age during the worst economic moment the country had seen since the Great Depression. Employment was down, tuition costs were up, and that meant that a good chunk of college-educated young people were saddled with student loan debt with no way to pay it off. It would have made perfect sense to find powerless, unhappy people. Instead, I found people like Taylor, who reported having never been happier in his life, and Molly, who felt so alive. At first, my sociological brain reasoned that more powerful actors *must* have been duping them into believing that open learning would meaningfully change their lives. Open learning *had* to be

contributing to the creation of a false consciousness for these young people and nothing else.

Thankfully, I was wrong. Open learning was changing their lives and there was nothing false about their choices to utilize it. But if coming alive is what the financial downturn demands, like Molly suggests, then what does that say about what it takes to maintain an identity as a living thing? Between the downturn and coming alive is a pedagogy of precarity. It is not a false consciousness; it is an active choice, albeit a risky one.

1.1 THE PEDAGOGY OF PRECARITY

In this dissertation, I study how the rise of precarity in the labor market has lead to a new style of learning that I call the pedagogy of precarity. The pedagogy of precarity is a reflection of larger social transformations and I specifically study it in the context of a post-recession economy in the United States, where the relationship and boundaries between learning and labor are being reconfigured among the young people in this study. Standing (2011) argues that the 2008 financial crisis brought many of the hidden realities of globalization to the surface, particularly shining a light on a new social class that has been called the “precariat”. The term precariat “brings together the meanings of precariousness and proletariat to signify both an experience of exploitation and a (potential) new political subjectivity”, where precariousness “refers to all forms of insecure, contingent, flexible work” (Gill

and Pratt, 2008: 3). Standing (2011) states that not everyone in the precariat is a victim; some prefer the flexible work arrangements and desire a different kind of relationship to labor than that reflected in Fordist labor arrangements. In the last decade, alternative work arrangements rose by roughly 5% for US workers (Katz and Krueger, 2016). Those alternative work arrangements include freelance, contract, on-call, and temporary help agency workers, and in late 2015 15.8% of workers claimed engagement in these areas (ibid). Still, uncertainty and insecurity bind the diverse factions of the precariat via the structural conditions of global capitalism, which subsequently depends upon a flexible labor force. This dissertation analyzes the boundaries and relationships between learning and labor in that flexible labor force.

Precarity became a more common experience following the 2008 financial crisis, when more college-educated, well-paid, and higher-status workers found themselves at risk of losing their jobs. The recession era (2009-2011) brought national unemployment levels nearing 10% and youth unemployment levels matched those numbers, except for youth of color, who experienced unemployment rates up to 18% (Bureau of Labor Statistics, 2012). College graduates were not exempt from these trends. The unemployment rate for new college graduates was around 9.2%, close to the national unemployment rate, and new high school graduates were facing unemployment rates around 35% (Carnevale, 2011). The social contract² between the attainment of a college degree and the near guarantee

² Tressie McMillan Cottom discusses this social contract in her book *Lower Ed: The Troubling Rise of For-profit Colleges in the New Economy*, which focuses on the expansion of credentialism “without challenging its market imperatives” (2017: 12). She writes: “When we offer more credentials in lieu of a stronger social

of a professional job seemed to be on a fault line during the recession. That fault line had started cracking long before the recession. Over the last three decades, the cost of obtaining a college degree increased twelve-fold while income levels have fallen for many Americans (Jamrisko and Kole, 2012). In 2012, 71% of students who received a Bachelors degree from a four-year college were in debt from student loans, with average debt levels nearing \$30,000. While economic analyses still point out that college is worth the investment (Carnevale, 2011), major news outlets started to report that young people might be better off without it. The rationale was that higher tuition costs financed by student loans were a bad investment if those degrees did not lead to professional jobs that could support student loan payments.

Not all college graduates were struggling in the labor market (Arum and Roksa, 2014). But the stories of those who did, those who were living at home with their parents while working for minimum wage and trying to keep up with student loan payments, haunted young people and educators alike. More precise analyses were starting to show that not all majors fared as well in the labor market. For example, Carnevale et al (2011) found an \$80,000 difference in median earnings between the top paying and lowest paying majors. College, popularly imagined as a path to a stable middle class life, was no longer the tried-and-true gatekeeper in this new, post-Fordist era. This variability calls into question sociological studies of stratification, like Collins (1979) seminal work that argued that credentialism was responsible for the split between lower class and professional class workers. While Collins' (1979) work was critical of college, especially in its role in reproducing

contract, it is Lower Ed. When we ask for social insurance and get workforce training, it is Lower Ed. When we ask for justice and get 'opportunity,' it is Lower Ed" (ibid).

existing inequalities, his work cannot explain the current crisis of precarity plaguing many graduates. This new crisis has upended our usual mechanisms for assessing opportunity and mobility.

As the cost of higher education was being questioned, so too was its value. If credentials, which cost about the same for every major, produced such variable outcomes, were they even worth it? Were there better ways to learn and prove that you have learned, or prove that you are ready for the demands of professional work? Further, if professional work is not available, are there alternatives to traditional work arrangements that could be viable? By 2009, more people were turning to entrepreneurship than before the crisis and recession. The rate of entrepreneurship increased 17% above 2006 statistics (Fairlie, 2013) and studies showed that necessity played a larger role in the decision to become an entrepreneur than in previous years. In 2000, 14% of entrepreneurs had come straight out of unemployment, compared with 26% in 2009. While many business schools teach entrepreneurship, there is no degree necessary to go out on your own and start a business. Successful entrepreneurs that I came across through participant observation mused that no one cared where you went to school in the entrepreneurship world; all they cared about was whether or not your product worked and that you could get the job done. Performing competency, not possessing credentials, held more value in the world of entrepreneurship.

During this same period, several open education sites were founded and they took up the challenge to traditional education and traditional credentials as part of their marketing. Massive Open Online Courses (MOOCs) became popularized

through sites like Coursera, Udacity, and EdX, which offered free college courses to anyone with an Internet connection. Entrepreneurial platforms like General Assembly, Skillshare, and Treehouse joined the challenge, offering low cost workshops and learning tracks for skillsets like web development and graphic design. These sites focused on disrupting education as we know it, despite many of them being housed and funded by top universities. They offered alternatives to the college degree with mini-credentials like badges that could be displayed on a person's Linked In profile. Critics cited their low course completion rates, arguing that they would never surpass traditional education (Ry, 2013); people needed more incentive to learn, like a high tuition bill or legitimate credential, and too much freedom would get in the way. But, while innovators and critics argued over what was or was not working, a subset of young people were lurking on these sites, using what they needed, throwing out the rest, and learning new ways to learn that could help them succeed in a precarious labor market. This study is about them.

In the next chapter, I discuss more in depth why I use the term open learning rather than open education when describing participants' learning. I use "open education" similarly to how British scholars van Mourik Broekman et al (2015) use the term generically, to refer to "an activity and practice" that can be "distinguished from other existing monikers, like 'Open Educational Resources' (OER)" (ix). However, I use open education to refer more to the field of these activities and practices or to specific sites, and focus on the processes of "open learning" as understood by learners. This shift in naming conventions is important in the American context which I am studying, because the threads of individualism,

entrepreneurialism, and anti-institutionalism are more pronounced than in the reported observations of open education in the British context as described by van Mourik Broekman et al (2015).

Through 52 in-depth interviews with 34 people aged 18-34 who were open learning and over 300 hours of participant observation, I observed how coherent learning practices (learning-to-learn) and conformity to similar subjectivities (learning-to-belong) catalyzed a challenge to traditional education that, for the people in my sample, lead to labor market success in the longer term. While the technologies of open learning facilitated my subjects' ability to learn and connect, I argue that the rise of precarity in the labor market has lead to a new style of learning that I call the pedagogy of precarity. The majority of the open learners I interviewed reported that they were affected by the financial downturn of 2008 and its subsequent recession, and their open learning was a response to their precarity. I argue that by learning-to-learn and learning-to-belong, open learners found a way to succeed during bad economic times and that they continue to benefit from their open learning. In the next section, I discuss the theoretical and conceptual challenges that arose from studying learning outside of a formal institution, where precarity is more explanatory than traditional definitions of social class, and where the relationships and boundaries between learning and labor are being reconfigured. These challenges explain how the pedagogy of precarity came to be theorized from a study of open learning.

1.2 THEORIZING THE PEDAGOGY OF PRECARITY: THEORETICAL AND CONCEPTUAL CHALLENGES

Educational transformations are always the result and the symptom of the social transformations in terms of which they are to be explained. For a people to feel at any given moment the need to change its educational system, it is necessary that new ideas and needs have emerged for which the old system is no longer adequate. –Emile Durkheim³, The Evolution of Educational Thought

According to Sadovnik (1995), pedagogy and critical curriculum studies were not a central concern of sociologists of education in the United States until the 1960s and 1970s. Grounded in the sociology of knowledge and intending to bring the sociology of education back to this subfield, critical curriculum studies were a response to the taken-for-granted, value-neutral view of curriculum as simply “the organization of school knowledge (Sadovnik, 1995: 4). Critical curriculum scholarship emerged from what was called the “new sociology of education” and it aimed to understand “curriculum as a social and political construction” (4). The new sociology of education was represented by two approaches. The first was phenomenological and focused on teachers and students as constructors of “school knowledge and practice through interaction” (Sadovnik, 1995: 5; see also Berger and Luckmann, 1966 for phenomenological approach). The second approach was more structuralist and was represented by Pierre Bourdieu and Basil Bernstein (Sadovnik, 1995). Curriculum and pedagogy in this approach were viewed “in relation to more ‘objective’ conditions, such as the division of labor, and to the economic and political systems” (Sadovnik, 1995: 5). My approach to pedagogy is

³ 1977 pg. 167

both interactionist and focused on these “objective” systems. In order to introduce it, I must first point out three conceptual challenges in this study.

The first two challenges are structural and are what lead me to consider a study of pedagogy in the first place. First, the intellectual core of the sociology of education gives little insight on how to study a new style of learning that is operating without a coherent institution. Second, precariousness, not social class background, more powerfully explains what and how participants are learning in my study. The intellectual core of the sociology of education focuses theoretically on class reproduction and resistance. The presence of precariousness as a common factor in the lives of the majority of my participants complicates this theoretical focus. Both of these challenges left me to find an alternative theory of structure. Bernstein defines curriculum and pedagogy as message systems, where “curriculum defines what counts as valid knowledge” and “pedagogy defines what counts as valid transmission of knowledge” (Bernstein, 1971: 85 in Sadovnik, 1995: 9). This study focuses more on pedagogy, the valid transmission of knowledge, and I argue that in the absence of a formal institution this system of valid transmission can operate like a structure.

The third challenge deals with the interactionist dimension of this study and how participants construct the boundaries and relationships between learning and labor in the absence of formal institutions and class reproduction. After giving an example of how the relationships and boundaries between learning and labor are complicated in open learning, I conceptualize two configurations for how these boundaries and relationships are typically characterized: learning *to* labor and

learning *as* labor. In the next theoretical section, I ask if the pedagogy of precarity is an example of learning to labor, learning as labor, or something else. I argue that while both learning to labor and learning as labor are present, it is this something else that is most interesting and best explains how the pedagogy of precarity “worked⁴” for participants.

1.2.1 Why pedagogy? Theorizing Beyond Institutions and Social Class

When I started this project, a colleague⁵ working on a similar topic warned me that sociologists of education would be unlikely to take our work seriously, despite our training in the sub-discipline. The message was discouraging: learning outside of the formal institution of education might not count as part of the sub-discipline. Throughout this project, I have had a hard time accepting that message – and not because I am feeling left out of the party per se. Instead, I find it conceptually false and empirically dangerous to exclude work that does not neatly fit into conceptual definitions but keenly demonstrates classic themes relevant within the sub-discipline. However, I will concede that there are very real challenges to understanding open learning within the sociology of education. In this section, I discuss the first two theoretical and conceptual challenges to studying open learning and why I propose a study of pedagogy as a theoretical alternative.

The first, most obvious challenge in this study is the lack of a coherent institution that structures open learning. Empirical studies within the sociology of

⁴ This term is in quotes because it will be interrogated in chapter 6, where I discuss the follow up interviews with participants.

⁵ That colleague has since left academia.

education in the United States typically make a distinction between education, schooling, teaching, and learning. Education is the institution that contains the other three and schooling is the “experience students have that actually produces learning” (Gamoran et al, 2007: 154). Teaching and learning are aspects of schooling and are typically thought of separately. So how does one make conceptual sense of a practice where the lines between teaching and learning blur, or where the institution is either non-existent, boundary-spanning, or in formation? Is it learning? Does it count as education or schooling? Do the boundaries between these conceptual categories even matter for this study?

Participants in this study learn across platforms and borrow content from different sites and communities. They also engage their open learning within institutions, if they are currently enrolled in college and connect it to their work lives, if they are employed. To pick a singular institution that defines their open learning would be virtually impossible. This is problematic because, like most of sociology, sociology of education has Emile Durkheim’s work at its intellectual core. Durkheim’s contribution to education was an expansion of his theory of organic solidarity, a kind of social cohesion that would build out of modern rituals and institutions that would replace traditional rituals and communities (1947). Education, he argued, despite its diverse forms, fundamentally created moral unity as society evolved through industrialization, urbanization, and modernization (Durkheim, 1962; 1977; Sadovnik, 2007). Durkheim relied on correlating changes in one institution to changes in another. Changes in education systems were, as the

quote leading this section notes, results and symptoms of larger social transformations.

Durkheim was the first sociologist to theorize how changes in systems of labor related to education (Sadovnik, 2001; 2007), though his legacy would be scrutinized as modern functionalists like Talcott Parsons insisted upon social cohesion as an ideal to be achieved through equality of opportunity (1959), an equality that could be achieved through a meritocratic education system. Later, conflict theorists would criticize this view as one that saw an ideal at the expense of seeing what was actually happening (Sadovnik, 2007). The empirical reality was that schools were not functional when it came to creating meritocracy or achieving democratic ideals. Moral unity was hard to defend, especially as functionalists like Davis and Moore (1945) would argue that inequality is functional to a society that needed its most talented to rise to the top through an education system that could sort them for top employment positions (Sadovnik, 2007).

Functionalism would fall out of fashion in all of sociology, even the sociology of education, though much of education policy still relies upon a functionalist view of education, where faith in the capitalist structure is indoctrinated through faith in meritocratic educational structures (Sadovnik, 2007). Conflict theorists invalidated functionalism, arguing that social cohesion is not the result of moral unity or shared values, but instead it is the product of dominant groups imposing their wills on subordinated groups (e.g. Collins, 1979; Willis, 1977; Bowles and Gintis, 1976). While conflict theorists provided an excellent critique of functionalism, their work also relies on tidy institutional categories, which this topic does not have. Further,

conflict theorists introduced sociology of education's current dominant focus for cultural scholars: class reproduction and resistance (Stevens, 2008; Davies, 1995). This brings up the second conceptual problem for my study: precarity cuts across social class lines and is experienced, albeit differently in terms of degree and kind, by individuals from all social classes.

As mentioned earlier, Gill and Pratt (2008) note how the "precariat" signifies "both an experience of exploitation and a (potential) new political subjectivity" (3). Standing (2011) also explains that not everyone in the precariat is a victim, given that many prefer flexible work arrangements and desire something different than current Fordist labor arrangements. Standing (2011) and Gill and Pratt (2008) consider the precariat as a new kind of social class, but the precariat does not map as neatly onto existing theories of class reproduction and resistance. For example, Standing (2011) notes how the precariat can refer to migrant labor as well as young college-educated people who constantly have to learn new skills in order to stay relevant in the labor market. These two groups hardly share similar class backgrounds, but they do share the experience of insecure, contingent, and flexible work. However, it is unlikely that these two groups will reproduce themselves and resist domination in similar ways. In my own study, I interviewed individuals from different class backgrounds and can clearly say that precarity and social class are not equivalent in my data. Therefore, theories of class reproduction and resistance that dominate the sociology of education do not as easily explain the social and moral cohesion participants achieve through group membership (chapter 5). This is not to say that social class is not important or will not, at some point in the future of

open learning or in specific sites, become important. But, with the data I have, I find that precarity has more explanatory power than social class.

In a sense, this study is Durkheimian, in that it aims to connect open learning to larger social transformations and correlates to changes in adjacent institutions (chapter 3). However, this study lacks a coherent institution. It is also Marxist and Weberian, and thus in line with conflict perspectives, in that it evaluates conformity and inequality as a product of social and moral cohesion achieved through group membership (chapter 5). But, this study is not a traditional classed based analysis and depends on theories of precarity, which complicate understandings of social class. Still yet, participants in this study could be understood as undertaking class projects, in so much that their precarity destabilizes their membership in coherent traditional social class categories. Thus, I present pedagogy as a theoretical alternative in order to navigate these conceptual challenges.

The pedagogy of precarity is a result of and symptom of larger social transformations. It is also correlated with changes in institutions outside education, notably work and labor. But, the pedagogy of precarity is not an institution and open learners in this study are not structured by membership and practices in a coherent institution. It is, as the name suggests, a pedagogy, a “valid transmission of knowledge”, which I argue acts like a structure (Sadovnik, 1995: 9). More specifically, it is a pedagogy as understood through the work of British sociologist of education Basil Bernstein. Sadovnik (1995) noted “Bernstein’s work promised to connect the societal, institutional, interactional, and intrapsychic levels of sociological analysis” and that in doing so his work “presented an opportunity to

synthesize the classical theoretical traditions of the discipline: Marxist, Weberian, and Durkheimian (7). For Bernstein, pedagogy is a model of symbolic control that “attempts to shape and distribute forms of consciousness, identity, and desire” (1996: 201). While Bernstein’s theoretical project was to connect “macropower and class relations to the microeducational processes of the school” (Sadovnik, 1995: 6), a close reading of his work and its intended direction shows that it is flexible enough to handle an empirical project that lacks a coherent institution and replaces social class with precarity.

1.2.2 The Boundaries and Relationships between Learning and Labor

The third, perhaps most important theoretical challenge of this study has been conceptualizing the boundaries and relationships between learning and labor in open education. For example, take the case of Startup Weekend - a weekend-long learning, networking, and advising event where participants form teams, create roles for each other, and ultimately attempt to build a startup by the end of the weekend while getting advice from experienced mentors. Startup Weekend is devoted to connecting, learning, and working: local mentors teach and guide participants through their challenges while participants “work” on building their startup, before presenting an app prototype or minimum viable product (MVP) to a team of judges the next day. Team members are not obligated to continue their startup after the weekend is over, but many do, and Startup Weekend’s website lists a few better known startups that began as projects at Startup Weekend. Startup

Weekend was part of the learning ecology for participants in my sample, meaning that it was named as something several participants had attended or wanted to attend. I came across it repeatedly during participant observation and was even invited to attend by an interview participant. In one weekend, the event organizes and hosts the common set of practices that I saw participants creating for themselves across diverse sites and resources (chapter 4). But are those practices learning, are they labor, or are they both? And if they are both, then are there boundaries between where one begins and the other ends? Or are they connected in some way, and if so, how?

Those questions are not simply conceptual; they hold in them theoretical clues for how to better understand the cultural character of new forms of learning and labor. Startup Weekend declares “the only way to learn is the experience of trying” and that statement combines elements of education (“the only way to learn”), something lived (“experience”), and something done or an act of agency (“trying”). To live and to do is to learn, and that living, doing, and learning is best done among others in the case of Startup Weekend. As a theory of learning, these elements combine as experiential, participatory, and relational. Is the same then true if Startup Weekend is understood as labor? If so, then where is capital in this experiential, participatory, and relational theory of labor? If not, then what happens when learning and labor have two different cultural characters? These are the types of questions that haunted me during the analysis of data and writing up of this dissertation.

I use that term haunting theoretically, not just as a turn of phrase. Avery Gordon (1997) theorizes haunting as “a very particular way of knowing what has happened or is happening” (8). Haunting is an epistemological challenge to the vocabularies and methods we use to study social life. It asks us to confront ghostly matters as “transformative recognition” of power relations, which are “never as transparently clear as the names we give to them imply” (ibid: 3). Thus, instead of trying to force my observations and participants’ stories into neat conceptual categories of learning and labor, I am forced to confront the ghost. What lurks in the shadows of a study of new forms of learning in a precarious labor market? In those shadows, I have found, are epistemological assumptions that frame how we conceptualize the relationship and boundaries between learning and labor. This study’s lack of a coherent institution and focus on precarity rather than social class problematizes the way the boundaries and relationships between learning and labor are typically configured. I organize these typical configurations into two categories: learning *to* labor and learning *as* labor.

1.2.2.1 Learning to Labor

I split learning to labor into two categories. The first is how the term is often used in discussions of vocational education and the skills gap in education and labor market policy (e.g. Newman and Winston, 2016). This first category calls into question the purpose of schooling, notably higher education, and links schooling primarily with relevant training for the labor market. For example, Newman and

Winston (2016) in their book *Reskilling America: Learning to Labor in the 21st Century* argue for a public investment in vocational education in order to bring back American manufacturing and thus solve the precarity in the labor market. They provide examples of corporations who have moved back to the United States with the aim of employing American labor, only to find that Americans are unskilled and have not kept up with the education and training demands of new workforce technologies (ibid). The path to reskilling American labor, they propose, will not run through four-year colleges:

Universities are not the right proving ground for most of these workers, whether they are needed in manufacturing, the health care labor force, or skilled trades. The technical know-how and skills they require come out of two-year programs rather than four-year colleges, and the United States has a very weakly developed system for producing that kind of training (ibid: 4).

Newman and Winston (2016) propose a model for the United States that mimics the German “system of ‘dual education,’ which fuses the classroom experiences with on-the-job training” and the authors encourage that “it is enormously successful in ‘upskilling’ that country’s labor force” (4).

“Upskilling” or “skillification,” McMillan Cottom (2017) points out, is a theory that “there is a ‘skills gap’ between the skills American workers have, the skills employers in the new economy will pay for, and the knowledge the economy needs” (198). The skills employers will pay for, Newman and Winston (2016) show, are in the high growth industries: allied medical fields, business and finance, the skilled trades, leisure and hospitality, information technology, transportation, and STEM. Learning to labor then is about closing that skills gap, by teaching the skills that employers demand.

The second category of learning to labor is exemplified by the critical ethnography of working class boys in the UK by Paul Willis (1977). Learning to labor, for Willis (1977), is a process by which working class boys develop an oppositional culture to the school and in doing so create their own subjugation in the labor market. Unlike the skills gap version of learning to labor, Willis's (1977) work shows how existing inequality is reproduced through what is learned in schools. Marxist scholars Bowles and Gintis (1976) argued something similar in their book *Schooling in Capitalist America*. In their book, they contend that schools were not conceived to achieve democratic ends and were instead organized by capital to reproduce "labor power for an industrial order whose jobs were organized hierarchically" (Aronowitz in Willis, 1977: x). Willis's study differs methodologically from Bowles and Gintis because it is ethnographic, and he argues that he was better able to get at the cultural level of what happens in school rather than black-boxing schooling processes. While he comes to a similar conclusion as Bowles and Gintis, he does so by noting that it was the working class boys' resistance that disqualified them from entering middle class jobs (Aronowitz in Willis, 1977). Where the skills gap version of learning to labor does not discuss culture, Willis's (1977) version of learning to labor (without engaging a cultural deficit explanation) shows that culture is what determines labor market outcomes. In the next categorization, learning as labor, the labor power is reconfigured but still dominant as in the learning to labor categorization.

1.2.2.2 Learning as Labor

The second category of learning and labor conceptualizes learning *as* labor. Learning as labor emerges from cognitive capitalism, “an emergent global economic system that depends upon the emergence of [a] virtual (immaterial) economy (‘third capitalism’) based on the increasing formalization, mathematicization, and digitization of language, communication, and knowledge systems” (Peters and Bulut, 2011: xxxii). Cognitive capitalism is also associated with “social media, social networking, and [the] social mode of production enhanced by Web 2.0 technologies” (Peters and Bulut, 2011). Cognitive capitalism blurs labor and capital through practices like peer production (Peters and Bulut, 2011; Benkler, 2004) and invests learning as a form of labor through reliance on knowledge labor in cognitive capitalism (Fuchs, 2011). Fuchs (2011) includes education and social relationships as indirect forms of knowledge labor and Cote and Pybus (2011) argue that Facebook users participate in a “polyvalent pedagogy” through a digital apprenticeship where they “learn to produce their networked subjectivity on social networks” (178). Learning and labor become blurred as subjects learn to produce different relations between labor and capital, essentially aiming to become capital.

In this category of learning as labor, the lack of formal institutions of education is not conceptually problematic and the inherent focus on credentialism in the learning to labor tradition is missing. For example, Beller (2011) demands that “pedagogical questions will not be answered by saying safely within the confines of Euro-America, or by confining ourselves to the idea of the school” (133). He also reminds that our current era is “nothing if not pedagogical through and

through” because “in post-Fordist production, everything intelligible serves as a template for a lesson” (Beller, 2011: 124). While I am heartened to see pedagogy linked to post-Fordist production and new systems of learning in this tradition, I am yet to find a study that has a robust theory of pedagogy like Bernstein’s (1996).

1.2.2.3 Something else?

In this study, I see elements of both learning to labor and learning as labor, but something else still haunts the boundaries and relationships between learning and labor that is not accounted for in these configurations. Learning to labor relies too closely on credentialism and theories of class reproduction that are not as easily replicated in a study that lacks a coherent institution and relies on precarity instead of traditional definitions of social class. Learning as labor is overly deterministic and stumbles in a way similar to Bowles and Gintis (1976): its theory of social relations implicitly subordinates learning to the reproductive functions of immaterial labor and generalizes culture as coherent without ethnographic evidence or a theory of how that culture is constituted, beyond top-down ideology (see Aronowitz in Willis, 1977 for critique of Bowles and Gintis). In chapters 4 and 5 I pull together the “something else” that haunts the boundaries and relationships of learning and labor in order to explain in chapter 6 how the pedagogy of precarity worked for participants and what it means for it to have worked.

1.3 EXAMINING THE PEDAGOGY OF PRECARITY

The six following chapters examine the pedagogy of precarity from the vantage point of 34 open learners between ages 18-34 when this study began in 2012, situated among the structural forces from which they are embedded during their open learning. Chapter 2 details the sociotechnical history of open learning and the methodology of this study in order to form a historical and methodological foundation for the pedagogy of precarity. First, I chronicle a brief history of open learning, as it emerged from the technological and cultural histories of connected computing and open source software development. In this chapter, I define open learning for the rest of the study as a practice that utilizes free or low cost resources for learning that are some combination of open-access, peer-driven, sharable, and digitally mediated. Because I am interested in the vantage point of learners, I use an intentionally loose definition of open learning in order to include anything that is named by participants as part of their learning ecology, as long as it roughly fits the criteria just named. I then detail the ethnographic methodology of this study and offer my rationale for focusing on open learning as understood by learners and not by the intentions and missions of various open education sites.

Next, in chapter 3, I detail the nature of precarity in the pedagogy of precarity by situating the social transformations that brought on the pedagogy of precarity through the lived experiences of participants. In this chapter, I explore how the 2008 financial crisis and the economic recession from 2009-2011 affected participants and how those effects related, if at all, to their open learning. I show

how a challenge to credentialism as the only legitimate relationship between learning and labor emerged, lead by participants who did not experience precariousness as a result of the crisis and recession. I argue that while technology is facilitating a pedagogical shift, it is not driving it; instead, I argue that the labor market drives the shift. I defend this interpretation with evidence from my sample of 34 participants, among whom 26 experienced some form of precarity (unemployment, underemployment, fear of graduating without employment opportunities) during the crisis and recession. As a result, these 26 participants were utilizing open resources as a buffer strategy for bad economic times. I offer two distinctions or types of precariousness in this chapter. First, 14 out of 26 people had experienced some form of “material” precariousness. They had lost a job, had trouble finding a job, or were underemployed as a result of the crisis and recession. Second, 12 out of 26 people had experienced what I call “proximal” precariousness. That is, they were close to someone (like a family member or college peer) who had experienced material precariousness as a result of the crisis and recession and their proximity to precariousness encouraged them to seek out open learning as a buffer strategy. Finally, I describe the eight individuals who did not experience precariousness, explain what protected them from the crisis and recession, and report how their open learning derived from a more ideological challenge to credentialism.

In chapter 4, I analyze the pedagogic discourse of the pedagogic of precarity and show how entrepreneurialism and communalism speak as one voice (Bernstein, 1996). In this chapter, I show how coherent learning practices structure

participants' learning in the absence of a coherent institutional structure. These coherent learning practices, I argue, create a common pedagogic discourse that is characterized by an instructional discourse of entrepreneurialism that teaches skills, and is then recontextualized by a regulative discourse of communalism and cooperativism that teaches social order and values. In this pedagogic discourse, learners first develop an interest on a topic. Then, they "learn like a programmer" by: 1. Chunking material to create a process, 2. Working on projects and problems to learn by doing, and 3. Creating and recognizing opportunities to give and receive feedback. The pedagogic discourse ensures a generic level of "trainability", whereby participants meta-learn or "learn to learn". Learning-to-learn stresses flexible, modular learning, where one can learn quickly while engaging a flexible sociality with others to validate that learning. Learning-to-learn is the first part of learning "trainability," or "the ability to profit from continuous pedagogic reformations and so cope with the new requirements of 'work' and 'life'" (Bernstein, 2001: 365).

The coherent learning practices in chapter 4 enable participants to "learn to belong" in chapter 5 by adopting a habitus of trainability. The habitus of trainability was embodied through the traits of curiosity, perseverance, confidence, and openness. It was embodied slightly differently for precarious learners and ideological challengers, but ultimately had the same outcomes: participants learned-to-belong as a mode of distinction and subtly excluded others who could not learn-to-belong. In this way, the pedagogy of precarity was more a blueprint for membership than a prescription for openness.

Finally, in chapter 6, I follow up with 18 of the original 34 participants and assess whether or not the pedagogy of precarity “worked” in the longer term. In this chapter, I evaluate what it means for the pedagogy of precarity to “work” as a model of learning, a mode for belonging and challenge to credentialism, and as a buffer for precarity. I find that it did work as a model of learning and mode for belonging as well as a challenge to credentialism, but only as long as participants embraced precarity and risk. In this chapter, I also explore the limits and challenges of the pedagogy of precarity as reported by participants in follow-up interviews.

In the concluding chapter 7, I return to the original larger argument about how the rise of precarity in the labor market has lead to a new style of learning that I call the pedagogy of precarity. I discuss the potential of the pedagogy of precarity beyond this sample and conclude with possibilities for further directions of this work.

2.0 BUILDING A FOUNDATION: BACKGROUND AND METHODOLOGY

2.1 KAM: CONTROL, CHOICE, AND THE COMMONS

“Like, so much of education is about exclusion, which is one of the reasons why I really dislike it and dislike the term. Where learning is much more individually focused and autonomous... Education often really gets me down. Sometimes it’s the structure, sometimes it’s the unnecessary constraints, sometimes it’s just inflection of power in a system or an individual. But I feel like I’m doing it for someone else or for something else and not for me.” –Kam¹

Kam found open education, a term I later learned that he hated, while working as an engineer after college. A first generation college student, Kam was the first in his family to go to college, stick with it, and find success both within his experience on campus and in finding a job after college. Upon graduation he had a relatively stable job as an engineer with the government, but found himself bored and constantly asking questions about his work that no one could answer or cared to answer. Kam, a white man in his late 20s, learned about MIT Open Courseware in 2003 and began teaching himself anything he could related to his job, well aware that the learning would not earn him an advanced degree. As an early adopter of open education, he believed in the power of learning that relied less on teachers and power structures, and as such afforded the learner more control and choice. Even MOOCs like Coursera and Udacity felt too structured for Kam, since they operated

on a semi-asynchronous time schedule, meaning that students could access content whenever they wanted, as long as it happened within that week's deadlines. Kam wanted to be in charge of his own learning, so much so that he resisted using the word education.

Kam regularly performed experiments on himself based on what he was reading or learning. When we met, he had just read *The Power of Habit* and was setting up trials in his life to unlearn bad habits and learn new ones. He was not the only person I interviewed that was fascinated with this book. For Kam, there was always something out there worth learning and internalizing. When I asked him what open education sites he was using he vaguely but assuredly replied, "You know it's like the world is my oyster. I'm learning all the time, I'm using anything that's available." Beyond his personal experimentation, he put his ideals into practice with his regular involvement on several online learning platforms and communities, including one he helped create at the university where he was currently employed. In his community, he started a non-profit bike repair organization where individuals could come and learn how to maintain their own bikes. Kam rode his bike everywhere, he told me, because he hated being subjected to someone else's schedule and could not stand sitting in traffic in a car.

When I asked Kam if he was affected by the 2008 financial downturn, he told me it did not really affect him, or at least he did not think it did. For him, the 2008 crisis was not a crisis because he had a "different mentality when it comes to economics," and he was not afraid of the world or the economy. Sure, he could not afford a giant home, but for Kam that did not mean he was not wealthy or successful.

He hated visions of success and wealth that depended on consumption. Therefore, the crisis was not really a crisis but another opportunity to make choices that reflected his values:

The more I understand [about] how I interact with the world, and like what I can control and what I can't control, the easier it is to sort of choose the right path.

In an era of scarcity and uncertainty, Kam imagined that he was immune from it because he had learned control and choice.

Kam's disdain for powerful structures that could control his autonomy would have allowed him to fit in well with another group of counter-culturalists from a different era: the New Communalists of the late 1960s (Turner, 2006). Unlike their counter-cultural peers who were protesting rigid social norms, the constant threat of nuclear war, and the escalation of the Vietnam War, the New Communalists "turned away from political action and toward technology and the transformation of consciousness as the primary source of social change" (ibid: 4). Kam did not Occupy Wall Street when the crisis happened; instead, he occupied his mind and his habits with "anything that's available". But Kam's individual pursuits did not mean that he rejected common causes; he was always giving something back to the commons, whether through his bike repair group or just leaving comments on blogs with his email attached if people wanted to continue the conversation. He deeply believed in increasing access to learning, but traditional educational policy was not going to achieve it, in his opinion. When I asked him what he would do to change education if he became Secretary of Education tomorrow, he responded, "My first order of business is to dismiss myself." Change, to Kam, was only possible through freedom

that allowed personal intervention. Open learning, he imagined, was a great way to scale that freedom, or bring it to a larger audience.

2.2 BACKGROUND: A TECHNOLOGICAL AND CULTURAL HISTORY

This chapter chronicles a brief history of open learning, as it emerged from the technological and cultural histories of connected computing and open source software development. Throughout this brief historical profile, I contend with the competing definitions of what makes something “open” and defend why I focus on open learning rather than open education. I define open learning for the rest of the study as a practice that utilizes free or low cost resources for learning that are some combination of open-access, peer-driven, shareable, and digitally mediated. Because I am interested in the vantage point of learners, I use an intentionally loose definition of open learning in order to include anything that is named by participants as part of their learning ecology, as long as it roughly fits the criteria just named. After profiling a brief history and defining open learning, I then detail the ethnographic methodology of this study and offer my rationale for focusing on open learning as understood by learners and not as defined by the missions and intentions of various open education sites.

As stated in the introduction, the pedagogy of precarity is related to larger social transformations and in this chapter I contextualize some of the larger social transformations that foregrounded open learning’s socio-technical history. Central

to this background is a cultural negotiation between individual control and choice (or autonomy) on one hand and contribution to the commons on the other. The cultural negotiation between autonomy and the commons contributes to my assertion in chapter 1 that “something else” is defining the boundaries and relationships between learning and labor. For the people in this study, the negotiation between autonomy and the commons forms a critique of credentialism and a challenge to traditional education (chapter 3). This negotiation appears again in chapter 4 as I analyze how it works as a pedagogic discourse. It also explains how inequality and exclusion are possible in open spaces in chapter 5 and how and why participants ultimately succeed within the pedagogy of precarity in chapter 6. To understand this negotiation, we must go back to the late 1960s in the United States.

In his book *From Counterculture to Cyberculture: Stewart Brand, The Whole Earth Network, and the Rise of Digital Utopianism*, Turner (2006) greets the reader with a question: how did the computer, which once represented the cold war and industrial era social machinery, come to signal the beginnings of a utopian society that is “decentralized, egalitarian, harmonious, and free” (Turner, 2006: 1)? In his answer to that question are two parallel histories: 1. The collaborative culture of the military-industrial research world, which brought together engineers, soldiers, scientists, and administrators and “gave rise to a free-wheeling, interdisciplinary, and highly entrepreneurial style of work” (ibid: 4) and 2. The American counterculture, which had visions of “peer-to-peer ad-hocracy, a leveled marketplace, and a more authentic self” (ibid: 3). Both histories embrace computers and cybernetic theory, which is a model for information systems that became a

metaphor for the social world. Also, both histories, according to Turner, have key network entrepreneurs⁶ who moved between the two worlds and as such moved ideas, made introductions, and built visions and technologies out of their connections.

Streeter narrates similar parallel histories of the emergence of connected computing and shows how the Internet as we understand it today has long been attached to romanticized tropes (2011). Some of those tropes, he argues, are paradoxical. For example, the Internet has been understood at different times in history as: a tool for democratic dialogue; a community builder; a venue for capitalism; and a prime example of free market politics (ibid). Technology, Streeter argues, is not so much a manifestation of what is possible or should be possible, but rather a deeply cultural force of ‘human passions made articulate’ (ibid: 2). In other words, technology, when understood sociologically, contains an interaction between culture, politics, and the economy that is defining in function and imagination. In this dissertation, I argue something similar for open learning: that the technologies for open learning cannot be understood without understanding how learners use and understand them, and perhaps more importantly, how those uses relate to the political-economic environment within which they are being used.

In the 1990s, a tension between two tropes about the Internet played out over copyright laws. The first trope championed the self-interested, autonomous,

⁶ While Turner focuses mainly on Stewart Brand as a major network entrepreneur, he names other key figures in this history. One of those key figures, Howard Rheingold, provides a link between the American counterculture and open learning. Rheingold, an expert on digital participatory cultures, has also emerged as a thought leader in many open learning related networks, including the Digital Media and Learning Hub that is the parent organization for the research network that funded this dissertation’s research (the Connected Learning Research Network). Rheingold, as a network entrepreneur, is a concrete link between Connected Computing and Connected Learning.

and enterprising actor, who was a remnant of the 1980s version of the Internet as an example of free market politics and the dot.com boom of the early 1990s. The second trope emerged later in the 1990s, as innovators began to fortify visions of the Internet as a connected digital utopia with open source technologies forming the infrastructure of the new digital commons (Streeter, 2011). The tension between the two came to a head when a printer jammed at MIT, and Richard Stallman, then a staff programmer, wrote a program that would make users aware of the jam. After a new printer was purchased from Xerox, Stallman requested the source code for the printer so he could write a similar program and was denied due to copyright laws (Wiley and Gurrell, 2009). This moment set Stallman off on a career devoted to free software, which materialized in the GNU project and the Free Software Foundation (Williams, 2002). The GNU project kicked off the GNU public license, which allowed software users free access and permission to share software using the license. Stallman's project was moral, in that he believed deeply in the morality of free software; this morality turned off other advocates, who were eager to bridge the concept into the market (Wiley and Gurrell, 2009). These advocates instead coined the term "open source software," which allowed for a pragmatic approach to software development. Open source software (OSS) developers wanted to create a culture of collaboration and transparency in development in order to foster greater accountability, while also encouraging other users to contribute to existing software in order to make products better at a fraction of the cost (ibid). Benkler (2002, 2004) notes that OSS developers engaged in a flexible sociality with others that allowed them to remain autonomous but ultimately still keep an ideological

commitment to the commons. The OSS movement and its open licenses transformed notions of ownership and copyright in the software development world, but the transformations did not stop there.

In 1998, David Wiley, inspired by the open source software movement, bridged the concept of “open” to education by creating the Open Content License for Open Educational Resources (OER). Open Content Licenses could be used for anything from educational software to scholarly research and was based upon bringing the same practical approach of open source software to education (Wiley and Gurrell, 2009). Open Content Licenses evolved further into Open Publication licenses in 1999, and then in 2002 Larry Lessig founded the next generation of these licenses, the Creative Commons license. Creative Commons licenses allowed for more flexibility among creators to determine whether or not they wanted their content to require attribution, non-commercial use only, or if they would allow derivative works (ibid). Creative Commons licenses became the default for OER and their creation significantly expanded the scale and scope of OER. From OER multiple projects were born, like Open Courseware at MIT and Carnegie Mellon University. At these schools, faculty members would put courses and content online for the larger public to access their teaching. These open courses were the digital antecedents of the web 2.0 versions we see now, the Massive Open Online Courses (MOOCs) of organizations like Coursera, Udacity, and EdX. Designed to open premier college courses to the larger public at a massive scale, these courses feature pre-recorded videos, uploaded readings, and evaluation opportunities often graded by peers or artificial intelligence.

OER initiatives, by nomenclature, have three components that deserve interrogation. First, what counts as open? Defining something as open typically begins with the distinction that it is not commercial, but Downes (2006) notes that many non-commercial sources are not open (for example, academic journals) and that many commercial sources offer open access (like Google's search engine). Downes (ibid) also states that some would advocate that open would include content that is affordable, but notes that many OER advocates would only be comfortable using the title of open if the resource were free. Left with the dilemma of how to define open, most early advocates would consider something open if it were free, easily accessed, publicly available, and without restrictions on modification, redistribution, and reuse. By that definition, many of the sites considered open today by the popular imagination would not count as open. For example, most massive open online courses (MOOCs) put restrictions on modification and redistribution, plus many are slowly adding fees to their platforms. Also, most of the current for-profit platforms, like Skillshare and General Assembly, contain elements of both free and low cost content, so it would be hard to determine if a platform is technically open or not by the traditional definition, even if some of the resources available on the platform are open.

This last point brings up another issue with the definition of OER: what counts as a resource? And also, perhaps more important for this era, is it necessary to draw a boundary between resource and platform, or even platform and practice? Early advocates, like Hylen (2005) considered OER initiatives that closely matched the traditional landscape of education. His work focused mainly on open

courseware, content, software, repositories, and staff development materials. These types of OER typically have a different scope in mind: the “opening” of traditional education and democratization of access to learning. For example, one might imagine a public high school adopting a learning management system that uses source code that is open for all public high schools, students use the internet and open e-books for all curricular content, and faculty are trained yearly via open staff development seminars online instead of the school investing in costly proprietary trainings. This point about scope is important, because it will quickly distinguish between the use of OER that self-references traditional education and the practice of open learning that I argue became popular following the 2008 financial crisis.

The third issue with the definition of OER is a question of what counts as education. OER that self-references traditional education, while very flexible in its definition of what counts as resource, is also limited by the vague constraint that a resource be “educational” (Downes, 2006). While this constraint may seem fair enough, it skews the interpretation of some of the most important aspects of what my participants talked about when I asked about their learning. To reference Kam again, he stated “education really gets me down” where “learning is much more individually focused and autonomous.” Kam was not the only person to draw a distinction between open education and open learning. From the time this study started (mid-2011) and the time follow-up data collection ended (mid-2015), a debate ensued among key innovators in the Digital Media and Learning space over whether to call the space open education or open learning. In fact, this study originally started as a survey of open education, not open learning. The distinction

between the two became very important and in 2013, the Digital Media and Learning hub out of UC Irvine (DML) convened scholars and practitioners for a program titled “Reclaim Open Learning.” The DML audience distinguished itself from the OER conversation in a subtle albeit major way: they focused on the “independent” learner. In my participant observation and research on the topic, the focus on the independent learner, while present throughout the history of OER, did not seem to take on as much pedagogical importance when advocates were busy figuring out how to get around issues like the creation of open infrastructure and licenses. While OER was self-referencing education, an institution, open learning was focusing on the practices of the independent learner. Thus, what originally started as a “survey of open education”⁷ for me quickly morphed into a study of open learning, or more accurately a study of open learners.

To be clear, open education as a term has not fallen completely out of favor and depending on one’s location and audience the term may be used instead of open learning. For example, van Mourik Broekman et al (2015) define open education as “an activity and practice” and distinguish it from OER. Their definition of open education is similar to my definition of open learning, but they study open education from a British context and use traditional higher education as referent for open education. Traditional education is a referent in my context, but so is traditional labor. They also regard for-profit platforms and entrepreneurial sites with distaste and limit them to a critique of their political economic implications rather than any discussion of what they might mean for learners. As I have noted in this section, the

⁷ IRB materials reflect this early nomenclature.

quest for profit and valorization of autonomous entrepreneurialism are relevant tropes within the US context of open learning. While these tropes have political economic implications and I agree with many of the conclusions of van Mourik Broekman et al (2015), my ethnographic approach has made it necessary that open learning be explored from the perspective of the learners and it asks what open learning means for them.

The shift from education (an institution) to learning (a practice) is characterized by this focus on the independent learner, and as such, this study was designed to focus on the individual navigating sites and practices within an evolving field, rather than the individual as member of a specific platform. All of the participants in this study engaged with at least one resource that by traditional OER definitions would be considered open. However, these resources made up only a piece of participants' open learning ecologies; entrepreneurial sites like Skillshare, General Assembly, and their locale based versions like Wintrepreneur⁸ were increasingly popular among participants. They also talked about platforms like Twitter and Reddit as part of their open learning and regularly networked with other learners on these platforms. Beyond using specific sites and platforms, participants talked about specific practices that they considered part of their open learning, like reading eBooks they purchased and talking about them with other learners on social networking sites. They went to meetings they found on Meetup.com, where they would connect with like-minded individuals learning similar skills and values. All of these practices reflected choices they had made to

⁸ Pseudonym

independently learn, and whether something neatly fit the definition of open or not was not brought up by participants as a concern. In other words, while this is a study of open learning, participants were not always reflexive of their open learning in terms of whether or not something was truly open or even could be considered a site or practice for learning. Open learning was often about finding an alternative way to learn, labor, and belong; as such, participants did not typically distinguish between proprietary and truly open resources or spaces. Therefore, this study of open learning is about how participants negotiated control, choice, and the commons into their lives in low cost, peer-networked, and digitally mediated forms.

For the purpose of this study, I define open learning as a practice that utilizes free or low cost resources for learning that are some combination of open-access, peer-driven, shareable, and digitally mediated. In this study, I am interested in the vantage point of learners. Therefore, my definition of open learning is intentionally loose and is learner-driven. As long as something loosely fits this definition of open learning and it is named by participants as important, it is included. In the next section, I detail the ethnographic methodology of this study, which further rationalizes why I focus on open learning as understood by learners and not by the mission statements and intentions of various open education sites.

2.3 METHODOLOGY

"I view the cultural, not simply as a set of transferred internal structures (as in the usual notions of socialization) nor as the passive result of the action of dominant

ideology downwards (as in certain kinds of Marxism), but at least in part as the product of collective human praxis” (Willis, 1997: 4).

The project was funded by the MacArthur Foundation as part of the Connected Learning Research Network (CLRN), a research network within the Digital Media and Learning Hub hosted at UC Irvine. As a member of the CLRN, Juliet Schor formed a team of researchers at Boston College in order to research connected consumption and the connected economy. My project is the second of nine cases to be studied by this team at Boston College and as a junior member of the CLRN I have enjoyed the research support of not only the Boston College team, but the larger CLRN network of junior scholars since first joining in 2011. CLRN is an interdisciplinary network and includes scholars and practitioners, and as such, this research has always had one foot in the world of scholarship and one foot in the world of practice. Throughout the study, I have had opportunities to present collaborations with other junior scholars, apply (and become a finalist) for a MacArthur Foundation funded design competition with a practitioner, and participate as a virtual panelist in “Connected Learning TV” livestream episodes with senior scholars and practitioners geared towards an audience of educators. I detail this experience with the CLRN out of gratitude and to show that it has been a large influence in the development of this project. It is also important for the reader to know how this project is one of many in a larger research agenda, in order to understand how some of the research decisions were made.

In this methodology section, I will first explain why I chose to conduct an ethnography and discuss the type of ethnography I conducted and why that matters. I will then detail the two phases of this project. During *Phase I*, data was gathered through

participant-observation (roughly 300 hours), in-depth interviews (34), and a demographic survey of interview participants. During *Phase 2*, data was gathered through in-depth follow up interviews with 18 of the original 34 participants. I will conclude with a section describing the sample and discussing its limits.

2.3.1 Ethnographic Approach

Using an ethnographic approach means that I sought to understand open learning from the vantage point of learners and how it is meaningful in their lives. This approach is similar to the synthesis of ethnographic case studies used by Ito et al (2009) in *Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media*⁹. The strength of this approach is that it can illuminate the “contours of a new set of cultural categories and practices” and can lead to “fundamental questions about what the relevant factors and categories of analysis are” (Ito et al, 2009: 5). For example, this study of open learning has lead to a re-evaluation of how the boundaries and relationships between learning and labor are constructed. By situating open learning within the lives of participants, as dictated and performed by participants, I have been able to better understand “media and technology as part of a broader set of social structures and cultural patterns” (Ito et al, 2009: 5). The weakness of this approach is that it does not analyze learning outcomes in an objective sense. For example, Arum & Roksa (2011) note Ito et al’s (2009) study does likely lead to “social learning, creative insights, and potentially individual growth” (62). However, they are skeptical that “many of these

⁹ Mimi Ito is the head of the CLRN and my approach to studying open learning is informed by her work on youth and new media.

activities are also likely to be closely associated with academic learning as measured by traditional forms of assessment” (62). A similar critique could be made of my work: little can be assessed from my study in terms of objective measures of learning. While participants report things like “mastery” or “becoming an expert,” there is no way within the methodology of this study to verify those claims. Saying that was not the focus of this study is not a concession; instead, it is staking a claim over what this study does offer: an understanding of open learning from the vantage point of learners and what meaning that open learning has in their lives.

This approach might be called a “peopled ethnography” (Fine, 2003):

In a peopled ethnography the text is neither descriptive narrative nor conceptual theory; rather, the understanding of the setting and its theoretical implications are grounded in a set of detailed vignettes, based on field notes, interview extracts, and the texts that group members produce. The detailed account, coupled with the ability of the reader to generalize from the setting, is at the heart of this methodological perspective (41).

Fine (2003) distinguishes peopled ethnographies from two other kinds of ethnographies that he calls postulated ethnographies and personal ethnographies. In a postulated ethnography, a specific theory is being tested within the data in a deductive manner (ibid). In a personal ethnography, the ethnographer is more a storyteller, telling rich stories about the people observed but rarely moving into theoretical development (ibid). Peopled ethnography, in contrast, “suggests that it is not the individuals being observed who direct our interests, but rather their position within a group or social system: the set of actors and their group ‘peoples’ the ethnographic analysis and description” (ibid: 46). Peopled ethnographies make theoretical claims that are grounded in observations, from a

mostly inductive approach, and they “move from how to why: from close observation to theory” (ibid: 46).

My approach mostly aligns with a peopled ethnography as described by Fine (2003). The only major difference would be that this study did have deductive elements to it as a result of it being one of many in a larger research agenda. For example, as part of the CLRN, I authored a white paper on my data as an example of connected learning. Our research team at Boston College in the initial years of the team was also oriented towards a Bourdieusian theory of how inequality is reproduced. Both of these deductive influences are present in my analysis, and therefore I cannot claim this study to be purely inductive. In addition, while peopled ethnographies are typically more realist than impressionist or confessional (Van Maanen, 1988), the confessional is an important part of my research. I discuss this more in the next section, where I detail how I gained access to open learning spaces and open learners by becoming an open learner. I also reflect on my subject position and how it ultimately helped illuminate norms that had been taken-for-granted (Venkatesh, 2012).

2.3.2 Phase 1: Participant Observation

Participant observation began in 2012 and continued through 2014 when phase 1 ended. Participant-observation in Phase 1 entailed enrolling, lurking, and engaging in as many platforms and open learning resources as possible while taking field notes. During participant observation, I became an open learner myself and examined open learning in my own practice and in interaction with other learners. In this next section, I discuss how

I became an open learner and gained access to open learning sites, practices, participants, and the experiences that go along with them.

2.3.2.1 Access: Becoming an Open Learner

At the start of the project, Peer 2 Peer University (P2PU) gave me permission to access their learning community and introduced me to several people to kick-start my understanding of open learning¹⁰. P2PU is a community-led non-profit open learning platform that is open to anyone for free. Anyone can take or teach classes on their platform, and they host an active community discussion listserv as well as open weekly video calls to discuss platform logistics. Somewhat serendipitously, P2PU needed a co-facilitator for Anya Kamenetz's¹¹ popular class "DIY U: Build a Personal Learning Plan" when I was just beginning my fieldwork. I was paired up with one of their paid employees who had run the class in the past and spent a few weeks with her planning for the upcoming classes and learning about the platform. The class ran asynchronously on the site, meaning that participants could join and access content at any time, and was in its second iteration when I had a chance to get involved. The new format was to have users progress through a seven-step challenge that taught them how to define their goals, find learning resources, access mentors, and commit to tangible projects. The class was modeled on Kamenetz's (2011) book *DIY U: Edupunks, Edupreneurs, and the Coming Transformation of Higher Education* and it instructed users on how to create their own learning experiences through accessible resources online and in their communities. My role

¹⁰ This partnership with P2PU was formally vetted and approved through the Boston College IRB.

¹¹ Kamenetz, a journalist, had just released a book and an online guide about DIY learning and was considered one of the experts in open learning.

was mainly to connect people, encourage people, and recommend learning resources as I became more proficient in the open learning space. While facilitating, I was given a gentle introduction to open learning; the next year and a half in the field was not as gentle.

Through participant observation I learned that open learning takes on a multitude of meanings and forms to people. For example, in my sample of 34 participants, over 40 different sites and platforms were named as part participants' open learning¹². While facilitating the class at P2PU, I joined platforms that I had heard about from popular media descriptions of open learning, like Coursera and Udacity. However, as the research went on, I followed people I met to where they were learning and spent time in places or with resources that open education purists might not consider part of the open learning landscape. Online, I curated my twitter presence to reflect the research project and engaged in conversations with people in the open learning world. I subscribed to every blog or newsletter I heard people talking about and tried to read a few chapters of every book mentioned by people I met, like *The Power of Habit*, *Thinking Fast and Slow*, and anything by Seth Godin and Gary Vaynerchuk. I watched the TED talks participants told me they liked and checked out their profiles on GitHub when asked. Virtually, I hung out at sites like Coursera, Udacity, EdX, P2PU, General Assembly, Skillshare, and Code Academy. On these sites, I enrolled in classes and interacted with participants in forums while learning course content and norms of the spaces.

Through an offline Skillshare class I found Wintrepreneur, a locally-based

¹² See Appendix 1 for a list of sites and platforms named by participants during interviews.

site that offered free and low cost in-person classes for people who wanted to learn about entrepreneurship and other business skills. On a few occasions, I joined participants at events in the local startup community when they were afraid to show up alone. Interview participants led me to hybrid learning and networking events at places like Boundless and Venture Café. These sites typically hosted events that included a learning experience, like a lecture or project, in addition to a happy hour style gathering after the event. I was invited to participate in Startup Weekend and at one point, inspired by the energetic people I was meeting, hosted two creativity salons at my apartment that brought together a mixture of musicians, designers, educators, and entrepreneurs. Also, I purchased a membership for several months at a co-working office and participated in community events that included presenting work and ideas after hearing participants talk about coworking. From participant observation, I became aware of the many sites, platforms, practices, and resources available to participants and how they were being utilized, as well as the informal ways that participants were gathering and connecting to each other.

One of my first major observations of open learning was that there was no end to the amount of available resources and that one could spend all day (and night) trying to organize a comprehensive learning plan. This observation led to theorizing how participants learn-to-learn (chapter 4). Like many of the people I ended up interviewing, I had the sometimes frustrating and sometimes exhilarating experience of seemingly boundary-less learning. Since participant observation largely contributed to recruitment for interviews, these experiences helped me to blend in by understanding some of the normative experiences participants were

having while open learning. My half-tired, half-inspired outlook built credibility for me among the people I interviewed and transformed the interviews from question and answer sessions to sometimes deeply vulnerable conversations about why someone would willingly shoulder hours of extra work to learn something that did not come from an accredited college environment.

Another major observation was the overwhelming sense of welcome in the spaces I observed, both online and offline. However, that sense of welcome did not come without expectations of how one might behave; this observation led to theorizing how participants learn-to-belong (chapter 5). During offline experiences, I typically announced myself as a researcher from the start and was surprised when my presence did not visibly repel people. I would give a quick blurb about my research when we went around the room to introduce ourselves and would then end with something like, “come see me after class if you want to talk about what brings you here.” I tried this introduction at first as a breaching experiment (Garfinkel, 1967), to see how the community would receive such a direct approach from an outsider. I was shocked when I had a line of people wanting to say hello after class, and even more shocked when I was invited to other events going on that week or asked to get coffee sometime and just “hang-out.”

I hypothesize that gaining access was easier than expected in this study for two reasons. First, as I will describe more in the next chapter, participants could be classified into two groups: those that had experienced some sort of precariousness following the financial crisis and recession (“precarious learners”) and those who had not experienced precariousness but were like open learning evangelists charged

with spreading the gospel of open learning as a challenge to traditional education and traditional work (“ideological challengers”). Both groups desired their open learning to be validated and legitimized and what better way to do so than to have a researcher, funded by a major foundation, asking you about your open learning? Secondly, I blended in well as an open learner. I discuss this further in the next section, where I detail my subject position and how, to the best of my professional ability, I remained reflexive during this study about how it could be affecting the research process.

2.3.2.2 Reflexivity: Naming Subject Positions

Even before learning the norms of the culture I was studying, I fit in well with open learners. I was in my late-20s at the time of this study and had an attraction to entrepreneurship and technology, as well as an aversion to one-downsmanship¹³. The fluidness of my gender identity and my visible white queerness was even an asset in these spaces, where white¹⁴ queerness could be read as a form of creativity. Many of the offline spaces I frequented in fieldwork were either part of the tech world or held the tech world as a cultural imaginary, a place to aspire to join. The tech world is known for its disproportionate hiring of white and Asian men, its culture of sexual harassment¹⁵, and its difficulty with promoting women and racial

¹³ Rarely did I hear people in these spaces or in interviews try to “one-down” others with stories about how much worse they have things or how much their life is ruined. Given how many of them had experienced some form of precariousness following the crisis and recession (26 out of 34), this lack of one-downsmanship is indicative of a cultural norm.

¹⁴ I emphasize the whiteness of my queer identity as non-threatening and “creative” as opposed to how queer and trans people of color are often read as threatening and are not able to take up the same kinds of space as white queer people (e.g. Tinsley and Richardson, 2014).

¹⁵ See for example Kraemer (2017) on the recent sexual harassment scandal at Uber.

minorities (McMillan Cottom, 2017). My white, masculine-of-center gender presentation acted as privilege and exempted me from some of the ugliness of this space. In my fieldwork, I did not experience sexual harassment and did not feel like men were talking down to me or “mansplaining” at all. However, by not being a white straight male, I was invited to community specific events, like an LGBT Startup night and could talk with women non-threateningly about their experiences of inequality. With a quick change of clothing, I could mostly navigate some of the more dominant tech spaces that were part of this cultural imaginary in the northeastern city where I conducted most of my offline fieldwork, but I embodied enough difference to gain entrance to less dominant spaces.

However, under the surface for me, and for many of my participants I found, was a recent story of hardship that was unwelcome in these dominant spaces. Gordon (1997) reminds us that complex personhood means, “even those who haunt our dominant institutions and their systems of value are haunted too by things they sometimes have names for and sometimes do not” (642). My own run-in with the 2008 crisis and subsequent recession contains a story of unemployment, welfare offices, and backbreaking labor that stays hidden without me voicing it. I met participants with their own bad stories about the crisis and recession, and it was often tucked into dark-washed jeans and crisp gingham shirts with casual attitudes about how they have things under control now and are making good choices. Open learning and entrepreneurialism were a large part of how they explained their control and choice. Given my own experience, it was easy to accept their performance not as a smarmy lie, but as a kind of silent suffering that deserved

mercy even if it did not ask for it. Mercy, in the sociological sense, is the refusal to fracture the lived experience of an individual from membership in one body, one society. As such, that refusal recognizes the full dignity and complex personhood (Gordon, 1997) of a person who in the same interview speaks of not being affected by the crisis and recession, but then goes on to talk about losing a job or not being able to find one, while seamlessly shrugging off the risk of a new learning style because it makes them feel in control. Mercy is bringing that one body to life in the analysis of an individual's contradictory speech, by theorizing what separated them from a common humanity in the first place.

If it is not already clear, my work is unapologetically humanist and I am compelled to name this as a subject position. Humanistic sociology takes the “how does this work and why” of peopled ethnography and uses the possibility of a better world as referent (DuBois and Wright, 2002). The caricatures projected by my participants at times opened them up to uncharitable critiques as clueless wannabe tech bros (and ladies), hungry for power and uncritical in their means to achieve it. The intersections of class, whiteness, and masculinity in open education are without a doubt worth interrogation (chapter 5), but I have resisted these caricatures in discussions about my research with others. This research is aligned towards understanding open learning from the perspective of open learners, in order to understand what it means to them and ultimately what culture they constitute with those meanings. I will explore further in the next chapter how open learning is related to precariousness for the majority of participants. Without viewing participants as victims or superhuman agents (Gordon, 1997), this study aims to

contribute an understanding of how to make that better world. In the next section I discuss the recruitment and interview content of in-depth interviews and demographic surveys.

2.3.3 Phase 1: In-depth Interviews and Demographic Surveys

In phase 1, I interviewed 34 people and explored what, why, and how they were learning; their social connections; and formal education backgrounds. I also asked participants to talk about their experience, if any, with the financial crisis of 2008 and with connected economic practices of the sharing economy. In this section, I discuss how participants were recruited, demographic data, the content of interviews, and analysis.

2.3.3.1 Recruitment and Demographic Data

During phase one, I recruited US-based individuals in the age range of 18-34 that were using some form of open education. Young people in the age range of 18-34 were disproportionately affected by the financial crisis and recession (Ito et al, 2013) and are most likely to be early adopters of new technology (Kennedy and Funk, 2016). Interview participants were recruited from participant observation, recommendations from other interview participants, and the occasional recommendation from open learning platform employees. In online environments, I spent time in virtual classrooms and on message boards to look for participants and

searched hashtags¹⁶ for classes on Twitter. I was not always as successful directly recruiting online, because many people did not put much information about themselves out there and it was hard to ascertain whether or not someone fit my research criteria. Because people do not claim membership in most of these sites, there is a range of users. P2PU innovators, for example, spent some time in community meetings asking about the trajectory of a user from lurker, to learner, to teacher, to volunteer. Like many platforms, P2PU had several dashboard features that allowed a user to curate a profile to display badges, interests, connections, and links to other sites where they could be reached. These features were voluntary and thus not everyone filled them out. The people I interviewed from P2PU tended to have full profiles and links to several other places where they could be reached or where their work could be viewed. The people I recruited from twitter were posting often on twitter and were actively connecting their learning to their social media presence. The people I met offline were eager to talk to me and were voluntarily attending classes after work. I did briefly talk to a few people offline who were out of work and were hesitant to give me their information and never followed up with me when I gave them mine. I also never saw them around in other classes after the first class where I met them. Therefore, in learning spaces that are completely voluntary, my sample is skewed towards those who are actively engaging and in a sense succeeding. In the final section of this chapter, I discuss these sample limits more in depth.

Through all of these experiences, I met people who wanted to tell me about

¹⁶ Some of the MOOCs I enrolled in had a class hashtag that participants could use in order to connect with each other on Twitter.

their learning, though not all of them fit my criteria for participants between age 18-34 who are based in the United States. In the process of my participant-observation, I met or was introduced to thirty-four people who consented to an in-depth interview. I also stayed in touch with at least 15 more people whom I met through the research either virtually or in person who did not fit the research criteria or were not available for interview. The people I met appeared in my Twitter feed with recommendations of articles to read, in my inbox with suggestions to check out a platform they were just learning from, or in person with invitations to join them at events. Interviews lasted between 45 minutes to an hour and a half and were conducted primarily in person and over video chat, but slow Internet connections forced a few interviews to be conducted by phone. All respondents were asked to fill out a demographic survey as well; one respondent declined and three others interviewed late in the project did not fill out the survey, though I could glean some demographic data from the interviews. About 80% of interview respondents stayed in touch with me semi-regularly after the interview and I continued to interact with them through participant-observation throughout the study.

I interviewed 18 men and 16 women. The youngest participant was 19, the oldest 33, and the median age for the group was 27. Twenty-seven respondents identified as White, four as Asian American, one as Black, and one as Latino. Table 2.1 shows the formal educational backgrounds of participants during phase 1.

Table 2.1: Participant Education Levels

<i>Education Level</i>	<i>Number of Participants (N=34)</i>
High School or GED	1
Some College	7*
Bachelor's Degree	13
Graduate or Professional Degree	13

**Out of those with some college, 4 were currently enrolled*

Table 2.2 shows the distribution of income, debt, and assets of my sample at the time of the interview.

Table 2.2: Number of Participants in Income, Debt, and Asset Ranges

<i>Range</i>	<i>Income</i>	<i>Debt</i>	<i>Assets</i>
\$0-24,999	9	14	18
\$25,000-49,999	8	3	6
\$50,000-74,999	8	6	1
\$75,000-124,999	4	2	2
\$125,000-250,000	1	5	3

N=30; missing data for four participants

While I struggled to find interview participants in the early stages, at least half of the students in the Boston College introductory sociology of education class I taught in the fall of 2014 would have fit the criteria for this study. Open learning, at least in practice, became more mainstream as the project developed over time.

2.3.3.2 Interview Content and Analysis

During interviews, participants were asked how they became involved with open learning, what resources they were using, and what they were learning¹⁷. The majority of participants were learning some type of skill relevant for entrepreneurship or becoming more entrepreneurial in their work. This included skill areas like programming or basic programming literacy (HTML/CSS, Python, Ruby on Rails), marketing (customer segmentation, search engine optimization, content management), business development (funding sources, database management, scaling strategies), and graphic design (infographics, Adobe basics). Others were using MOOCs to learn some of the basics behind a skill they wanted to learn, like learning statistics in order to understand a data analytics class. Some were in traditional careers, like in healthcare and education, and were learning skills to make them more entrepreneurial. This included learning basic web development to publish a blog on content from their work lives, or curating guides on their expertise that could be easily consumed by the public (through eBooks, scalable business models, how-to videos). These portfolio pieces were often thought of as ways to show expertise or gain consulting opportunities.

After asking what respondents were learning and how, I then asked what they learned about themselves, both as a learner and in general. From there, I asked about respondents' experiences with traditional education; answers varied significantly. Some respondents were not successful in the traditional education system and saw open learning as a chance to redeem themselves, while others had been quite successful and saw open learning as a compliment to what they had already done. Only one participant had dropped out of college to use only open learning to construct his education and one

¹⁷ Appendix 2 contains the interview guide for phase 1 in-depth interviews.

other had decided to use open learning instead of going to college after moving to the United States from a country with state-sponsored higher education.

Next, I asked respondents about their social connections online and offline. Again, their responses varied. Some preferred to primarily engage others online, some preferred to engage offline, some did not have a preference, and still others preferred to not engage at all. This was often reflected in their descriptions of their best open learning experience or their preference for having a class facilitated by a person or not. Interviews ended with an examination of how, if at all, they were affected by the 2008 financial crisis, and then a conversation about their participation in the sharing economy, if at all. In some cases respondents talked about more global views of the economy or the education system, but I primarily tried to focus the conversation on their experiences.

Interviews were transcribed using a transcription service and then uploaded into the qualitative coding platform *Dedoose*. Thematic coding¹⁸ was designed through a process that was more inductive than deductive. As mentioned earlier, the deductive elements of coding focused on two themes: 1. Connected learning 2. Bourdieusian distinction. Connected learning is an approach to education that aims to connect the often-separate spheres or contexts of interest-based, peer-supported, and academic/career-oriented learning (Ito et al, 2013). In addition, the connected learning framework relies on three properties: production-centered, openly networked, and shared purpose (Ito et al, 2013). The case of open learning was

¹⁸ Undergraduate research assistants from the Connected Economy research team assisted in this coding process. I trained three students in qualitative coding and the coding software over a period of three months in once a week 3 hours training sessions.

chosen to test the salience of these six criteria, and as such, interview transcripts were coded deductively with these criteria in mind. Also, the larger Connected Economy research team's theoretical orientation to a Bourdieusian framework guided a deductive analysis of distinction in the interview data. Outside of the themes of connected learning and distinction, thematic coding took on an inductive or grounded approach. Thematic code categories were broken down into codes and occasionally sub-codes. A total of 219 codes used 6425 times created 2824 excerpts from the data, which then created the possibility for multiple matrices when referenced with the 30 demographic variables from the demographic questionnaires.

2.3.4 Phase 2: Follow-up Interviews

Phase 1 provided a snapshot of how participants were using open learning and how they narrated its influence in their lives, however it was not designed to measure whether or not open learning had a transformative impact on the economic and educational lives of interview participants. Participants in Phase 1 very clearly spoke of the co-constitution of their identities and social lives with open learning, if not directly attributing changes in the former to the latter. Some talked about their whole lives changing, with references to changes in their peer groups, expectations for themselves, and overall outlook on life. Many had found contract, part-time, and even full-time employment that they narrated as a result of their open learning. Open learning, in its early stages, could seem like a life-altering, economy-changing,

community-building panacea. As a researcher, I also felt myself swept up in the wave of optimism and possibility that was present in open learning spaces. On its own, my account of Phase 1 is a contribution to the literature in that it is (to the best of my knowledge) the first sociological narrative description of open learning. However, the emergence of themes that corroborated current economic trends plus the overall enthusiasm of interviewees to participate in the research process made this study ripe for a more longitudinal design. Therefore, I amended my IRB and proposed to conduct a second phase of research. In phase 2, I conducted follow up interviews with participants in order to understand more long-term educational, social, cultural, and economic outcomes related to open learning.

2.3.4.1 Recruitment

All 34 interview participants were emailed individually, in the late Spring and early Summer of 2015 explaining my interest in interviewing them a second time¹⁹. Twenty-six participants responded to the initial email and 18 were available to schedule time for a re-interview during the time I had allotted to complete this phase of research. One interview was conducted in person and the rest were conducted either over video or phone call. Interviews lasted between 30 and 75 minutes, were recorded, and then were sent off for transcription. Several attempts were made to schedule the eight people who had responded but were unavailable for interview, but after a few failed attempts I chose to move forward with coding.

¹⁹ Participants were not aware that I would be reaching out again, years later, for a second round of interviews.

2.3.4.2 Interview Content and Analysis

Phase 2 was designed to explore participants' senses of self, their social worlds, and any economic impact on their lives²⁰. More simply, I wanted to understand if open learning "worked," and more concretely, what did it work for in their lives? Did it lead them to a great job? Did it make them happier? If not, why? Also, what did they have to sacrifice in order for it to work? Were there tradeoffs and how did they negotiate them? Specifically, I questioned if participants were still using the resources they mentioned in the past, if they had moved onto others, or if they had stopped their learning entirely. Then, I asked them to reflect on the answers to these questions. For example, if someone stopped using a platform they learned from in the past, was it because they were busy, had moved on to other things, or was the platform not beneficial to them anymore? If they stopped going to networking events where they could learn from others, why did they do that? Was something more pressing? Was there a new platform they were using or did they rely on mentors for their learning? I also asked participants to reflect on their social connections as well as their current work situation. Did their open learning play a role in their ability to connect or to gain employment? Were those connections primarily online or offline and had they changed since we last spoke? In summary, the first part of phase 2 was designed to understand open learning and its self-reported effects on participants' lives one-and-a-half to two-and-half-years since first speaking with participants.

After learning about what had changed in participants' lives and how they

²⁰ Appendix 3 contains the full interview guide for phase 2 in-depth interviews.

did or did not connect those changes to their learning ecology, I probed participants about a theme that emerged in the first round of interviews: risk. I asked participants to think about the concept of risk and whether or not they felt like it was risky to learn through the resources they named in the first round of interviews. They were prompted with the following statement about risk: “Some people might say it is risky to learn through resources that are not credentialed and do not lead to specific careers, while others might say that spending thousands of dollars on formal degree programs is risky. Did you ever feel like your decision to learn outside of a formal program was risky? Why or why not?” After this question, I asked participants to reflect on their employment over the last few years and discussed the role of risk in their choice of employment. For example, if someone left a typical 9-5 job for an entrepreneurial venture, did they feel like it was risky? Or if they had left a start-up job for a corporate job, was risk a concern in their decision? Also, I wanted to get a sense of how others in their lives perceived their decisions. To do so, I asked them to reflect on any feedback they had received from people close to them, either in support or critique. This question typically revealed some of the complexity of their decision making and offered them a chance to voice some of their fears for the future, if they had any.

Finally, I asked participants if they would do anything differently over the past few years if they had a chance to do so or if they would still recommend learning through open resources to others (if they had in the past). Somewhat ironically, this question typically failed to end an interview and opened up a chance for many participants to reflect on their choice of major or degree program

in formal education, not their decision to learn through open resources. When I asked if participants had questions for me or wished I had asked them anything, the interview often continued to run for another ten minutes while they asked what I had learned in the first round and they directly interacted with those findings through their own narrative. Here, the conversation around risk was developed further as participants revealed some of their own challenges more honestly than they had in the earlier questions about risk. After transcription, interviews were uploaded into Dedoose and coded in a similar manner to phase 1²¹. In an effort to simplify efforts from the first round of coding, 57 codes from the three thematic categories were applied to the 18 transcripts, producing 1176 excerpts.

2.3.5 Sample Description and Study Limits

As noted earlier, this sample is skewed towards those who are actively engaging in open learning and in a sense succeeding. This study was not designed to measure failures or people who were frustrated with open learning and the reader should keep this limitation in mind throughout. A person could more easily disappear from a learning environment online where they could lurk anonymously than they could in a traditional educational setting. While I was able to capture some “failures” through offline fieldwork (people who walked out or expressed disgust) and later in the study asked a few respondents to more directly discuss experiences they had observing these failures, there is little in my data to capture who is not

²¹ Two undergraduate research assistants helped code these transcripts.

doing open learning and why. Participants were asked to comment whether or not they thought open learning was for everyone and that question produced some of the exclusive aspects of open learning that were taken-for-granted. Mostly though, exclusion had to be inferred and analyzed in the subtle ways norms and behaviors produced that exclusion.

In my sample, participants engage in entrepreneurialism, which I will discuss more in chapter 3. McMillan Cottom (2017) describes the entrepreneurial worker as someone who is always looking for the next opportunity through networking and continuing education. She argues that the entrepreneurial worker is a product of labor market precarity (Standing, 2011), declining job tenure for younger workers (Hipple and Sok, 2013), and a risk shift from institutions to individuals (Hacker, 2006) (McMillan Cottom, 2017). The entrepreneurial worker believes that the only way to fully escape bad labor market conditions is to become your own boss (McMillan Cottom, 2017). In the next chapter, I analyze participants' experiences with the financial crisis and recession and discuss how that relates to their open learning. Twenty-six of the 34 participants experienced some form of precariousness following the crisis and recession, and I will contextualize in the next chapter how "experiencing precariousness" is defined. For now though, it is important to understand that a large portion of my participants were attracted to entrepreneurialism in open learning and behaved similarly to McMillan Cottom's (2017) definition of the entrepreneurial worker.

This attraction to entrepreneurialism in my sample is a potential limit, in that not all open learners are likely to have an affinity for entrepreneurialism. However, like MacMillan Cottom (2017) argues, entrepreneurialism within my sample was a kind of

choice made within a structure that shifted risk from institutions to individuals (chapter 3). As I will argue in chapter 4, entrepreneurialism was part of the pedagogic discourse, and therefore non-entrepreneurial open learners were unlikely to succeed in their learning. My participants embraced the risk shift (chapter 5) and their rationales resemble what is called the “Californian Ideology” (Barbrook and Cameron, 1995). The Californian Ideology “promiscuously combines the free-wheeling spirit of the hippies and the entrepreneurial zeal of the yuppies” into a “virtual class” and achieves a “profound faith in the emancipatory potential of the new information technologies” (Barbrook and Cameron, 1995). The Californian Ideology is a critique of Turner’s (2006) New Communalists discussed at the beginning of this chapter.

Responding to these critical views of the “Californian Ideology”, Pearce argues that one thing holding together the structure of livelihood in the virtual class is a faith in “autodidactic communalism” (1996). Autodidactic communalism is the process by which the virtual class self-teaches and learns “by showing each other how to do things” (Pearce, 1996). My participants engage in autodidactic communalism and this is the focus of chapter 4. The additional eight participants who did not experience precariousness are especially committed to autodidactic communalism and as such are responsible for defining the dominant behaviors within my study (chapter 5). Through autodidactic communalism, precarious learners could learn and share in a way that let their experiences count. Thus, while they behaved very similarly to the McMillan Cottom’s (2017) definition of an entrepreneurial worker, they were able to at least temporarily escape the dominance of a precarious labor market by learning to learn and learning to belong.

McMillan Cottom (2014) offers a critique of open education that must also be addressed as I describe and discuss the limits of my sample: open education serves the “roaming autodidact.” The roaming autodidact is a “self-motivated, able learner that is simultaneously embedded in technocratic futures and disembedded from place, culture, history, and markets” (McMillan Cottom, 2014). Roaming autodidacts are typically well off white men who already benefit most in current labor markets and who are also privileged in the tech space (ibid). I would not go so far as to say that my participants, even the white men, are completely disembedded from place, culture, history, and markets. However, there is an overwhelming sense of colorblindness²² in my sample at times and the lack of racial diversity in my sample gives me little room to theorize much else than how white people experience open learning. At times, this is subtle, like in Molly’s story of giving her labor in exchange for food and housing in the introductory chapter. We can praise Molly’s ecological choice to live simply and engage in organic farming for a year, but we must also be aware of the ways that Molly’s decision to forego accumulation of her own property and wealth in pursuit of skills is white privilege. As a white person, Molly is not required to answer to a history of black and brown disenfranchisement in her choices and non-choices, especially through property ownership. Without a diverse sample, I am left to constantly ask, “could anyone do this?” even when my participants are reluctant to do so. In chapter 5, I will explore this further and discuss how this limitation plays out when analyzing how participants learn-to-belong.

²² See also Schor et al (2016) for a discussion of colorblindness in a portion of my sample as well as other case studies from the Connected Economy team.

One final note on limitations in my study, and that is the “momentariness” of this study. My research was conducted during the boom of open education sites in the United States. Since then, many of those sites have changed in terms of what content they offer and what they charge for that content. While some free and low cost options remain, more high cost options are emerging in the open education space. One major shift is the emergence of short-term coding bootcamps that are offered for anything from a few thousand to \$30000. McMillan Cottom (2017), from observations conducted in 2014, discusses these at the end of her study as a new form of credentialism and thus Lower Ed. The openness of these bootcamps is more in question than the loosely open practices that were included in my study, and thus the level of inclusivity and who can succeed through open learning is also thrown into question. I will address this more in the conclusion, but it is important to note that the timing of my study greatly contributes to my conclusions.

3.0 BUFFERING PRECARITY & CHALLENGING THE STATUS QUO: OPEN LEARNING BEYOND TECHNOLOGICAL DETERMINISM

3.1 ANDRE: STARTING OVER AFTER THE CRISIS

But at that point, especially in 2008, 2007, I was just trying to do everything I could just to keep my job. I think everybody was just trying to, you know, do something where they weren't getting fired. –Andre

In September of 2008, one of the biggest global banks, Lehman Brothers, collapsed. With it, the world's financial system also went down in a chain reaction of events that brought to light the many vulnerabilities in the financial sector that were waiting to erupt. Economists trace the collapse back to several factors; subprime mortgages, a complacent Fed, and a savings glut in Asia to name a few (The Economist, 2013). In the United States, taxpayers were relied upon to bail out the failed banks and stimulate the economy. Unemployment hit unprecedented highs and consumer spending slowed. According to economic theory, it was not supposed to happen, Andre would tell me in an interview. I met Andre, a black man in his early 30s, on an email recommendation from one of the employees at an offline/online open learning site that at the time also offered apprenticeship programs and coworking offices. An accomplished economics major from a high-ranking public

university, Andre had no trouble finding work in the finance sector when he first graduated from college. While in school, he was part of a research-mentoring program that prepared first generation and underrepresented students for future doctoral study. After taking a summer internship at a top financial firm, Andre decided to forego the doctorate for a career in finance. He was making substantial money in the industry, though at the time we spoke he carried over \$100,000 in debt. When the financial crisis hit, Andre had front row seats to the collapse.

Andre was walking around New York City when we spoke, almost absentmindedly answering my questions over speaker phone, like I was a passerby asking him what time it was or who won the Knicks game last night. He described what he was learning - programming - and his observations of startup culture, offering up little affect, like he had told this story 100 times prior. Then his voice changed when we started talking about the financial crisis. It was like he was recalling an eerie encounter with the supernatural to a trusted friend:

During that time it was definitely a pretty crazy time just because it was weird, right? Because it was, like, especially when, like, finance started failing. We didn't know what was going to go on. We had, you know, like, the global financial system was on the verge of collapse. And it was, like, "Okay, I'm working in finance." And, you know, it's, like, Sunday night and I'm watching the news and it's, like, Lehman Brothers is bankrupt. They just went bankrupt. And actually seeing, you know, employees going to the office and get their stuff and it was, like, "Wow, this company is no longer in existence." But it's, like, they had, like, billions and billions of dollars under them and they financed, like, how many companies? So it's, like, you know, what is going to be the domino effect of that?

Andre's description of the "domino effect" of Lehman's bankruptcy started as a calculated measure of lost businesses, like he was reporting a death toll, and then persisted into an exasperated query of how such a collapse was even possible

according to what he had learned as an economics major:

And then we kind of slowly saw it fall apart, you know, like Merrill Lynch went, and it was pretty much down to where it was only, like, Goldman and Morgan Stanley were the last two standing. They all started falling off. Like, you know, when Merrill was going it was, like, “What’s going on here?” You know, like we had no idea what was happening. But it was a very strange time because, you know, I never expected anything like this to even happen. Going back to, like, econ, you know, looking at, okay, the fed is supposed to be able to prevent things like this from happening, right? And it’s, like, okay, so right now, like, all this theory on the verge of being disproven. Like, what’s going to happen, you know? It’s kind of, like, you know, I don’t know, like something happened where everything in physics was proven to be false because there was some new discovery and you have to, like, rethink, you know, that whole entire academic discipline.

For Andre though, economic theory was not the only casualty; his own job was at stake:

Like I’m working in structures²³, and I’m wondering if I’m going to have a job, right? These are all of our clients that are, like, gone. They’re, like, no longer here, which is kind of, you know, it was definitely a scary time. You know, this was a scary time, very confusing. But at that point, especially in 2008, 2007, I was just trying to do everything I could just to keep my job. I think everybody was just trying to, you know, do something where they weren’t getting fired. At that point I was in sales, and was, you know, was trying to get involved in any side projects I could get involved with.

In his own words, Andre “survived the first round” of cuts, but not long after that first round his entire department was cut and he was fired.

Some of Andre’s side projects with his company allowed him to learn new skill sets that he would eventually try to sell to people as an independent consultant, but contract gigs were hard to come by as well. He started studying for the GMAT with the intention of applying to MBA programs to ride out the recession, but not long into his study he shifted gears completely after considering the high cost of MBA programs. Squeamish about where he might end up after an MBA program,

²³ It is unclear from the interview if Andre was referring to financial structures or capital structures.

given that the unthinkable had just happened to the economy, Andre was a bit reluctant to rely on future earnings to justify taking on more debt for graduate school. During that time he had started hearing more and more about free resources that would help him learn how to become a computer programmer. After a bit of research, Andre learned that computer programmers were in high demand, especially at startups, and that he could expect to make at least \$70,000 at a first job. At that point, Andre ditched his GMAT study materials for Codecademy and other open resources. He started an offline coding meetup in order to learn alongside other people that were trying to learn to code as well. Later, Andre was accepted into an apprenticeship program that was run through a partnership between an open learning site and local startups. There, he was given small projects to test out what he was learning while being mentored by people in the company. At no point did Andre, a top graduate from a high-ranking public university, enroll in traditional classes at local colleges to learn his new career. A long way from finance, Andre was starting over in a new career that would pay him well (as long as people like he were in demand, he confessed).

Andre had a front row seat to the economic downturn as a result of his previous job in finance, something that no one else in my sample experienced. But his response to the crisis was common among my participants. In this chapter, I discuss how participants experience precarity and theorize how an entrepreneurial vagueness works to maintain the status aspirations of precarious participants despite worsening objective chances to achieve status aspirations in the labor market. I ask how, if at all, interview participants were affected by the financial crisis of 2008 and the economic recession of 2009-2011.

For those that were affected, I then assess if their open learning was at all related to the effects the crisis and recession had on them. I find that 26 of the 34 people I interviewed were affected in some way and their open learning was understood as a buffer strategy for bad economic times. In later chapters, I refer to these 26 people as precarious learners. The additional eight participants were not affected by the crisis and recession, but they experienced open learning as a challenge to the status quo of learning and labor. In later chapters, I refer to these participants as ideological challengers. These participants were already learning and working within technological fields that required constant learning and labor flexibility, or they were educators and advocates committed to open learning as a way to transform learning and labor. While not personally affected by the crisis and recession, these participants were not immune from larger precarious institutional trends that are structuring learning and labor. For my sample, open learning was used in context of changes in the labor market and budding challenges to the status quo of learning and labor. I argue that while technology is important, it does not determine a pedagogical shift for my participants.

3.2 HISTORICAL CONTINGENCIES: PRECARIOUS LEARNING AND LABOR

In the last chapter, I described a brief technological and cultural history of open learning and showed how changes in technology facilitated a change in how people access learning opportunities. Embedded in this technological and cultural history is a cultural negotiation between autonomy (control and choice) and the

commons. This cultural negotiation is relevant in my sample of entrepreneurial learners who engage autodidactic communalism, the process of self-teaching by learning from others. While autodidactic communalism is embraced by a virtual class, that is, a class whose work depends on technology, it would be false to assume that technology *determines* modes of work, exchange, and learning (see Oliver, 2011). Streeter (2011) shows how sometimes paradoxical tropes are attached to the Internet and argues that the growth of openness is “not the result of underlying truths about technology...breaking through the crusts of tradition and inequality” (16). Instead, Streeter (2011) details how historical contingencies are at work in creating technology²⁴. In this chapter, I argue something similar. Historical contingencies are at work in open learning and in the adoption of it by the people in my sample. This is not to say that technology was not important; however, as stated in chapter 2, this study’s ethnographic approach considers “media and technology as part of a broader set of social structures and cultural patterns” and not the other way around (Ito et al, 2009: 5). Precariousness is the broader social structure within which I consider open learning and in this chapter I contextualize it within the lived experiences of my participants.

This dissertation deals with interrelated precariousness in learning and labor. In labor, precariousness refers to “all forms of insecure, contingent, flexible work – from illegalized, casualized and temporary employment, to homeworking, piecework and freelancing” (Gill & Pratt, 2008: 3). Precarity, Gill and Pratt (2008) argue, has always been part of capitalist labor; what’s different now is the “addition

²⁴ Streeter (2011) also argues that these historical contingencies are at work in creating democracy, but I focus on his critique of technological determinism.

of well-paid and high-status workers into this group of ‘precarious workers’” (2). In the United States, the college-educated previously would have been unlikely to be considered as part of the precariat. However, Gill and Pratt (2008) also note that precarity signifies “the multiplication of precarious, unstable, insecure forms of living” (2). In those insecure forms of living is a broken social contract between learning and labor (McMillan Cottom, 2017). That social contract has been changed by a new economy that is “marked by four characteristic changes”:

...people are frequently changing jobs and employers over their working lifetimes (job mobility); firms place greater reliance on contract, term, and temporary labor (labor flexibility); there is less reliance on employers for income growth and career progression (declining internal labor markets); and workers are shouldering more responsibility for their job training, healthcare, and retirement (risk shift) (McMillan Cottom, 2017: 13).

Job mobility, labor flexibility, declining internal labor markets, and risk shift (e.g. Hacker, 2006) are all examples of rising precarity.

McMillan Cottom (2017) shows the rise of for-profit colleges as a symptom and mechanism of precarity. My work is related to hers in that both for-profit colleges and open education challenge the traditional narrative of credentialism in higher education. In her work, credentialism is challenged by opening it up to those previously denied access to it. In mine, credentialism is challenged by attempts to displace it as the only legitimate way to characterize a relationship between learning and labor. Despite our differences, we both rely on a similar truism of the new economy: greater precarity intensifies the struggle for upclassing and against declassing, and increasing credentialism or “diploma inflation” has become a mechanism in that struggle (Bourdieu, 1984a). Diploma inflation depends on faith in

the education gospel. The education gospel²⁵, McMillan Cottom (2017) writes, is “our faith in education as moral, personally edifying, collectively beneficial, and a worthwhile investment no matter the cost, either individual or societal” (10). The moral valence of higher education skews towards “vocational promise,” that is, “education is good because a good job is good” and “the faith breaks down when we divorce higher education from jobs” (McMillan Cottom, 2017: 11).

In my sample, all but four participants had a college degree or would be on their way to obtaining a degree. One of those participants had gained college credit through his service with the Marines. Another had a year of college in her home country before moving to the United States. The other two had some college credit before dropping out. Minus these four people, in an earlier era, the 30 additional respondents should have been able to rely on excellent returns to higher education post graduation. In other words, almost everyone in my sample should have been able to find stable careers with benefits and the potential to advance within those careers. Instead, the majority were worried about their futures and had become part of the precariat.

Precariousness in learning and labor has been an issue for several decades, challenging the education gospel. In particular, the 2008 financial crisis and subsequent recession has brought many of the hidden realities of globalization to the surface, particularly the existence of the “precariat” (Standing, 2011). Gill and Pratt (2008) describe how the term precariat “brings together the meanings of precariousness and proletariat to signify both an experience of exploitation and a

²⁵ McMillan Cottom (2017) cites economists W. Norton Grubb and Marvin Lazerson for the creation of this term.

(potential) new political subjectivity” (3). Standing (2011) considers the precariat to be a new social class and states that not everyone in the precariat is a victim; some prefer the flexible work arrangements and desire a different kind of relationship to labor than that reflected in Fordist labor arrangements. Still, uncertainty and insecurity bind the diverse factions of the precariat via the structural conditions of global capitalism, which subsequently depends upon a flexible labor force. The precariat lacks the security of full-time, contract-protected labor. It lacks adequate benefits, like health care, employment training, and retirement benefits. It also lacks an occupational identity. Young people who are coming of age as part of the precariat no longer develop a work-based identity, critical to the formation of any type of class solidarity:

When employed, they are in career-less jobs, without traditions of social memory, a feeling they belong to an occupational community steeped in stable practices, codes of ethics and norms of behavior, reciprocity, and fraternity...This intensifies a sense of alienation and instrumentality in what they have to do. (Standing, 2011: 12).

Sennett (1998) correlates the short-termism of the new economy with a corrosion of character, arguing that the creation of a sustainable self depends on more long-term commitments to each other, to careers, and to our life histories. Class-based occupational identity has often offered this narrative of a sustainable self (Sennett, 1998; Standing, 2011), but precariousness has upended traditional class and occupational identities. In its place, precarity offers “the hustle” (McMillan Cottom, 2017), a strategy that entails continuing education, networking, aspirational entrepreneurialism. The hustle also involves affective investments in risk as desirable rather than something to be personally avoided (Neff, 2012).

The hustle came up often in my interviews as a moral affirmation of one's autonomy and sociality. It was also a way to move one's social position from victim to agent, especially after the shock of the 2008 financial crisis and subsequent recession. Like Andre, participants that were affected by the crisis and recession described the times as "scary" or that they were "freaking the hell out" – and who would blame them? The recession era (2009-2011) brought national unemployment levels nearing 10% and youth unemployment levels matched those numbers, except for youth of color, who experienced unemployment rates up to 18% (Bureau of Labor Statistics, 2012). The unemployment rate for new college graduates was around 9.2%, close to the national unemployment rate, and new high school graduates were facing unemployment rates around 35% (Carnevale, 2011). In August of 2009, there were seven unemployed people per job opening; by December of 2011, that number had only reduced to four unemployed people per job opening (Bureau of Labor Statistics, 2013). On top of these dismal employment statistics, young people struggled to find work with employers who provided healthcare. In 2010, 61.2% of entry-level college graduates worked for employers that provided healthcare, compared to 74% in 2000 and 78% in 1979 (Mishel and Bivens, 2012). Still worse, in 2010, 22.8% of entry-level high school graduates could rely on their employers for their healthcare, compared to 65% in 2000 and 63% in 1979 (Mishel and Bivens, 2012). The Economic Policy Institute warns of the longer-term consequences for this "lost generation":

Entering the labor market in a severe recession can lead to reduced earnings for as many as 10 to 15 years. Young workers at all levels of educational attainment who enter the labor market during a downturn face higher rates of unemployment. In addition, because of the scarcity of available jobs, these

young workers are less likely to land a stable entry-level position that will lead to advancement, and are more likely to experience a lengthy period of instability in employment and earnings (Economic Policy Institute, 2012: 2).

It was during that period of instability that I met the majority of interview participants in this study and thus the recession was fresh in their minds as we discussed their open learning.

During the recession, major news outlets took the critique beyond the economy and started to question the value of a college degree (ex: Steinberg, 2010; Kaufman, 2010). The high cost of college became a recurring national headline. Over the last three decades, the cost of obtaining a college degree has increased twelve-fold while income levels have fallen for many Americans (Jamrisko and Kole, 2012). Still, college enrollments increased by about 16% over the same three decades, aided by the growth of community colleges and student loans that helped young people finance their educations (Pew, 2009). It became increasingly harder for these young people to pay off their student loans during the recession era and even after, given the rough employment landscape. In 2012, 71% of students who received a Bachelors degree from a four-year college were in debt from student loans, with average debt levels nearing \$30,000. Carnevale (2011) urges that college still is worth the investment, despite the claims from major news outlets that young people might be better off without it. In other work, he and his colleagues state that bachelors' degree holders still earn 84% more than their high school diploma holding peers (Carnevale et al, 2011). Choice of major, however, does matter, and his team found an \$80,000 difference in median earnings between the top paying and lowest paying majors (Carnevale et al, 2011), with income for most majors

being boosted by graduate degree holders. Law schools and graduate programs received more applications as young people considered advanced graduate degrees as a solution to the unemployment crisis (Ruiz, 2010). But that trend quickly reversed as young people began to fear taking on more debt to finance their graduate degrees (Rampell, 2012). At the same time, temporary residents financed by foreign governments accounted for 45.5% of students enrolled in engineering graduate programs and 42.4% of students enrolled in mathematics and computer science graduate programs (Rampell, 2012), fueling fears that American graduates would be left behind in a globalized labor force (Standing, 2011).

Without work, more people turned to entrepreneurship than in previous years (Fairlie 2013). Necessity played a larger role in the decision to become an entrepreneur than in previous years, with 26% of entrepreneurs coming straight out of unemployment in 2009, compared to 14% in 2000 (Kelly et al, 2013; Fairlie, 2014). In my sample, all respondents had either made the decision to become an entrepreneur or were learning entrepreneurial skills²⁶. Their affinity for entrepreneurship came from a desire for more autonomy, or to “leave the chase” as one interview respondent reasoned (see also Fitzmaurice et al, 2017). Autonomy, however, also meant more risk. Bourdieu (1984a) describes how diploma inflation required the “adjustment between objective chances and subjective aspirations,” calling it a “subtly extorted,” risky, and unstable process (156). This adjustment requires “maintaining a vagueness in the images of the present and future of one’s position” (Bourdieu, 1984a: 156), or in other words the absence of traditions of

²⁶ In the next chapter, I discuss more thoroughly what and how they were learning.

social memory that Standing (2011) related to missing class-based occupational identities in the precariat. Bourdieu (1984a) notes that this vagueness is “a way of accepting limits, but it is also a way to avoid acknowledging them, or to put it another way, a way of refusing them” (156). By learning entrepreneurialism, the majority of my participants accepted the limits of credentialism and the precarious social contract between learning and labor, while simultaneously refusing credentialism as the only legitimate social contract between learning and labor. I refer to this acceptance of the limits of credentialism and simultaneous refusal of credentialism as “entrepreneurial vagueness.” Entrepreneurial vagueness allowed participants to negotiate a different social contract, defined by the autodidactic communalism that characterized learning and labor in the critiqued Californian Ideology (Barbrook and Cameron, 1995; Pearce, 1996). In the next section, I contextualize precarity within the lived experiences of my participants in order to show how they utilize open learning to converge on a challenge to the status quo of learning and labor.

3.3 EXPERIENCING PRECARITY

Following the 2008 financial crisis, participants in my sample had a range of experiences and memories relating to the crisis and subsequent economic recession. In this section, I analyze those experiences and their relationships to open learning as components of a challenge to the status quo of learning and labor. This status quo

is represented by credentialism, the mechanism in formal higher education that confers social status and access to higher status jobs through the accumulation of academic qualifications (Collins, 1979). Credentialism does the organizational work of the education gospel, by simultaneously reproducing the social status of those with the highest levels of economic and cultural capital to utilize it and offering limited social mobility to those who need it in order to access better life chances (Bourdieu, 1984a). Bourdieu argues that much can be learned about transformed social structures when challenges to credentialism like diploma inflation disrupt the education gospel (Bourdieu, 1984a):

The strategies which one group may employ to try to escape downclassing and to return to their class trajectory, and those which another group employs to rebuild the interrupted path of a hoped-for trajectory, are now one of the most important factors in the transformation of social structures (147).

For Bourdieu (1984a; 1984b), fields are characterized by a continual struggle for class position and status. Actors with different combinations of economic, social, and cultural capital vie for status and the class pattern is either reproduced or modified by challengers and defenders (1984a). Diploma inflation, while partly attributed to structural deskilling that benefits employers, is also the result of democratized access to higher education (Bourdieu, 1984a). Thus, those with more status must find new ways to reproduce their status when credentialism becomes a tool for the masses and not just those with the right types and volumes of capital to access higher education. Bourdieu argues that one way higher status young people reproduce their status is by entering new cultural and media-based fields that are less bureaucratized (1984a). Today, we would recognize a similar less-

bureaucratized space in the technology field. These new fields match job seekers to positions through cultural fit, that is, having the right habitus, and rely less on credentialism to reproduce status hierarchies (ibid).

In Bourdieu's (1984a) analysis, class positions are already determined and social actors emerge as challengers and defenders with an interest in maintaining or transforming their status position. His analysis is helpful for my study, but as noted earlier, precarity operates differently than class and the precariat classifies people from different social class backgrounds but similar precariousness into the same group. That is not to say that higher status actors are not better positioned to reproduce their own status; however, for the precariat to act *like* a new social class, as Standing (2011) defines it, then it becomes important to ask how this new social class comes together (or pulls apart) to challenge or defend transformations in social structure. In this chapter, I begin to offer an explanation of how my participants converge as challengers to the status quo of learning and labor, represented by credentialism, by first analyzing their relationship to a precarity-making historical contingency, the 2008 financial crisis and the subsequent economic recession. First, I describe how 26 out of 34 respondents described being affected by the 2008 crisis and subsequent recession. I label 14 of these participants as having experienced material precariousness and define material precariousness as a participant connecting the financial crisis and economic recession to a lost job, underemployment, or the inability to find a job. For these participants, open learning was experienced as a way to learn entrepreneurialism in order to recover from or remake oneself in a bad labor market. Then, I label 12 more participants as

having experienced proximal precariousness and define proximal precariousness as a participant connecting the financial crisis and economic recession to the lost job, underemployment, or the inability to find a job of a family member or close peer (like a college classmate). For these participants, open learning was experienced as a way to learn entrepreneurialism in order to avoid the material precariousness they witnessed in those close to them.

Finally, I discuss the additional eight participants who did not report experiencing precariousness as a result of the crisis and recession. These participants were learning and working entrepreneurially in the technology field and relied on open learning to stay current on skills in a fast paced field. In addition, some were also educators and advocates who were vocally committed to open learning as a way to transform learning and labor. While these participants were not affected by the crisis and recession, they were already acquainted with precarity as a broader social structure for open learning. In the discussion of this chapter, I introduce an argument for later chapters: these participants' commitment to social capitalism and autodidactic communalism defines a conformist "taste for necessity" (Bourdieu, 1984a) among participants and as such determines the dominant behaviors and systems of inclusion and exclusion in open learning. But first, I must contextualize the nature of precarity in the lived experiences of my participants.

3.3.1 Materially Precarious Learners

"I can learn a little bit while I don't have a job" -Jess

I classify fourteen people in my 34-person sample as having experienced a form of material precariousness following the financial crisis of 2008. Experiencing material precariousness meant that a participant directly connected a precarious labor market outcome, like a lost job, underemployment, or the inability to find a job, to either the financial crisis or the subsequent economic recession. For these participants, open learning was experienced as a way to learn entrepreneurialism in order to recover from or remake oneself in a precarious labor market.

Entrepreneurialism took on different forms. For Jess, an inquisitive white woman in her late 20s, entrepreneurialism meant learning skills that would help her turn her husband's side business into a career for both of them. Jess lost her job during the economic recession of 2009-2010, but expressed little disdain for losing her rote administrative job. She enjoyed learning new things and had completed some college coursework, but like 31 million other American adults Jess did not obtain a degree (Bidwell, 2014):

I haven't finished college, just because I could never decide on what I wanted to do, because I liked everything so I kind of bounced around so much that it was a waste of time and money.

During our interview, the high cost of higher education came up frequently, whether referencing her younger brother's current college costs or her own desire to go back to school if it were not so expensive.

Like others without a college degree, Jess's career prospects were limited, but she had a solid full time job with benefits at a title company before the recession. When she lost her job, she decided to help her husband out with a side business he

had started as a hobby and used open learning to get up to speed on various entrepreneurial skills:

We started it kind of part time hobby when I was pregnant, three and a half or four years ago, I think. Just -- I started -- I got laid off from my job at a title company, which was right when I think the recession kind of hit, and so we had already started kind of, you know -- he had a client, and this little company that needed a website, so we kind of did that, we decided, well, "I definitely have some time now, and I can learn a little bit while I don't have a job" so I did and we kind of got more and more just built up.

Not long after Jess lost her job, her husband lost his job as well, and the two decided to take their side business full time. When we first spoke, they were busy and successful, though she did note one downside to their entrepreneurial careers: the lack of health insurance. When I asked Jess if she would prefer full time employment like her job at the title company compared to the uncertain work she was doing now, she replied that she liked where she ended up, at least for now. Jess echoed Standing's (2011) statement that some members of the precariat desired a different relationship to labor. Her current role allowed her to keep learning and kept things interesting, something Jess admitted that she struggled with in formal education and at her past job.

Learning entrepreneurialism did not mean that participants had to become entrepreneurs. Entrepreneurialism was understood as a way to build more autonomy into one's relationship with learning and labor, and as such reflected a constant adjustment between "objective chances and subjective aspirations" (Bourdieu, 1984a). Like Andre (from the opening section of this chapter), Mike also left finance and found his way into programming. Unlike Andre, Mike chose to leave his sales job at a lesser financial services company without first considering the

consequences of leaving a full time job during the recession and its aftermath. Mike, a white man in his mid 20s, graduated from a highly-ranked private school and a friend's dad secured him a job selling financial products in one of the less competitive departments of his company. Unlike some of his peers that were in better, higher paying parts of the company, Mike saw very little future and growth for himself. He described his peers and superiors as "cow-eyed" and vacant in their day-to-day affect. Fearing for his future he left his job, traveled a bit internationally, and then returned to the US to apply for jobs after hitting the refresh button on himself. Having walked into his last job on an inside recommendation, Mike was shocked to find out that his degree was not opening doors for him when he returned to the US and he faced the harsh reality that his expensive education did not translate into marketable skills:

And it's just, like, I was also unemployed, I mean-- was unemployed for a year--but I came back in May and I was, like, "I need a job." And then I was, like, 2-3 months deep, like, I was working it, I mean, I probably could've worked harder, but I just kept swinging and getting absolutely no traction, like, none, zero. And so that was kind of a wakeup call. I was, like, "F*ck me. Like, I don't actually have any skills." Like, I have, like, communication skills, like, personable, I'm, like, a decent salesperson, not great, but, like, really nothing to stand on. Like, I'm a lot better than a lot of people, but I'm a complete generalist, and it's, like, basically I'd have to learn everything on the job. So anyway I was, like, "Yes, sh*t, I have no marketable skills, fundamentally, or very few."

These realizations lead Mike to seek out some older peers whom he admired. They had just started a company and secured him a low-level sales job but also encouraged him to teach himself programming in his free time through open resources.

Like Andre, Mike saw programming as a way to gain skills that were in high

demand and would likely always be in high demand. As a programmer, he could work autonomously and choose the kinds of work that he wanted to do, unlike his previous path to become a “cow eyed” salesperson with no promotion path. His analysis of the economy was not as astute as Andre’s and he wavered between understanding his own trial with unemployment and underemployment as related to the recession or not:

I mean, it’s possible I could’ve gotten a better job coming out of college than I did. Like, if the jobs were just flying around maybe I could’ve gotten something fancier. But I certainly didn’t suffer economically. It may have contributed to the difficulty that I experienced in finding a job recently. Like, the relatively high level of unemployment probably made it harder, maybe made it harder for me to find a job than it would have been in, like, some other times or decades or whatever.

While Mike experienced precariousness as not being able to find a job, he claimed having not suffered economically. A key difference between Mike and Andre, however, was that Andre was in over \$100,000 of debt and Mike reported assets of \$100,000. This difference could have contributed to how Mike framed economic uncertainty and hard economic times as a positive thing that gave him a sense of urgency, which he capitalized on through open learning:

But, you know, getting back to your point about the economy, it’s, like, if the economy was just roaring I wouldn’t be stimulated into doing this because I’d be, like, “It’s easy to make money. I just show up,” you know? Like, now I’m, like, “Oh, f*ck me. Like, I’ve got this job, but you never know. So, like, maybe, like, I’ve really got to look out for, like, what’s going to happen next, you know?” So, like, there’s a degree of complacency that goes with good economic times, and I think that because it does seem like the economy is uncertain, like, I’m a little bit more, like, complacency is, like, not an option. Or it’s a stupid-ass option.

Mike was “stimulated into doing this” because of precarity and as such embraced the risk of open learning as a kind of morality (“complacency is...a stupid-ass

option”) (Neff, 2012; Fitzmaurice et al, 2017). As members of the precariat, Mike and Andre were aligned by their use of open learning to recover from and remake themselves after a precarious labor market experience.

Brian, a Latino man in his late 20s, was also learning entrepreneurialism and he aligned himself with the aspirational idea that not only owning your own company, but being able to invest in other people’s company as a venture capitalist was the only way to change predatory corporate capitalism. Brian’s described his experience with the recession as a punch to the gut in an already brutal journey from high school to college and adulthood. Brian had a learning disability that made it difficult for him to learn in formal classrooms and was also susceptible to bouts of depression. After a career training program, he slowly worked his way through community college while taking time off to treat his depression. When he finally finished his bachelor’s degree after transferring to a state college, the recession hit. Brian recalled that experience with contemptuous sarcasm:

Well, I had a lovely experience of graduating in 2009, during the financial downfall, which was really fun, though, applying for jobs and have them kind of look at you and laugh. It was, like, “Yeah, right. Hiring. Ha ha, that’s great.”

Brian started working at Lowe’s after graduation for minimum wage, a job he described loathing in great detail. His friends pushed him to apply for graduate school as a last ditch effort to help him through another bout of depression. Brian was doing well in graduate school when we talked and his program even encouraged students to take open courses in their free time in order to round out their education. Brian was doing that, and was also learning about entrepreneurship on the side. His taste of the recession left him reluctant to rely on just his graduate

program to get a job and he had plans that summer to start looking for investors for one of his ideas, a plan that would later fall through, but at the time he was quite encouraged. For Brian, graduate school was not enough and open learning was a way to learn all the things he would need to start a company. He swore off working for someone else, what he called being part of the “chase,” and vowed to become an entrepreneur himself:

So the long and short answer to that is though, is you’ve got to start your own company. And you’ve got to do the right things to do that.

By “you’ve got to do the right things to do that,” Brian meant teaching yourself through open learning. Open learning gave those who faced economic uncertainty access to the entrepreneurial skills needed to hit the ground running when everything seemed to be slowing down. In the next section, I detail how participants experienced proximal precariousness.

3.3.2 Proximally Precarious Learners

“I think it was more of a mindset.” -Liam

I classify 12 additional people in my 34-person sample as having experienced a form of proximal precariousness following the crisis and recession. Experiencing proximal precariousness meant that a participant could recall family members or peers they were directly connected to who were affected materially by the financial crisis or the subsequent economic recession. These proximal connections served as warnings to twelve participants, who reported worry and concern over their own futures. Open learning was experienced as a way to learn the entrepreneurialism

mentioned in the previous section in order to avoid potentially precarious situations. Notably, participants did not have to experience precariousness directly in order to feel its effects; being close to someone who had experienced some form of material precariousness was enough for them to pursue entrepreneurialism through open learning.

For someone like Nita, an Indian-American woman in her early 20s, her proximal precarity came from watching extended family members suffer during the recession and also from meeting peers in college who had also suffered:

And, again, coming to college and then hearing other people's stories, and, like really reading about it, and watching, like, documentaries, and people are, like, "Well, this is actually pretty bad. What does this mean?" And then because it affects our generation so much more, you're constantly thinking about it. And again, it's, like, what's going to be the next crisis? The student loan crisis. You know that and you're, like, freaking the hell out. So I think definitely recognized my own privilege through that, the financial aspect of it. ... I was fortunate that nothing really happened to my family financially. But I did know a few other families that weren't so lucky. And that was tough because they were family members, and always, like, family comes first, so I know other family members had taken on their burden. And then themselves worrying about their kids' futures and college and all that other stuff, so I remember seeing that. But I didn't really fully grasp the situation, and my parents never really fully grasped the situation because they were okay.

Despite saying she “didn’t really full grasp the situation,” Nita had spent a lot of time and energy considering her options post-graduation, given that she was majoring in something that her parents did not find to be practical. Nita was drawn to finding creative ways to address social justice issues and she started experimenting with a startup idea that eventually won funding from a school competition with the entrepreneurship club. When we met, Nita was unclear of her next steps, but knew that she was well positioned to continue her startup, which at the moment was well

funded. Like many of the other current college students I interviewed, Nita was questioning the value of finishing her degree because so much of what she was learning and using for her startup was found in open environments. On top of that, Nita was worried about the amount of student loans she took out to pursue her degree, and was afraid of whether or not she would be able to pay them back. While the worst of the recession had subsided, it still had left a legacy of uncertainty with young people like Nita who were just about to enter the labor market.

Derek, a white man in his late 20s, was also trying his luck with entrepreneurship when we first spoke and was using open learning to become a startup generalist, so he could one day better understand all the aspects of owning his own company. Derek recalled his mother losing her job during the financial crisis when he was in college, an event that motivated his current aspirations:

So I was insulated because I was in academia. But my mom, she was the president of the company that she had built up herself--like, twenty years, this really great company, like, fifty employees. So it was growing, it was turning into a medium-sized company. And one of her main investors, who happened to be...the majority shareholder, right? When 2008 happened, he freaked out. He thought that the business was just going to tank. So he made this decision in his freaked out state, he said, "Well, what's, like, the highest, like, cost right now in this business?" And it's, like, "Oh, well, it's--" so my mom's name is "[omitted]," "--it's [omitted]'s salary. So let's fire [omitted], the person that basically runs everything." So he fired her, and a few days later he realized, like, the company doesn't work without her. So then he rehired her. And so my mom decided at that point that she was going to eventually branch out to a company where she owned everything and she wouldn't be at the whim of a shareholder like this. So that was a little bit tough for our family.

Derek pursued graduate school in engineering, but while he was there he joined the entrepreneurship club. He described falling in love with the kind of autonomy that he had over his own learning and production through the club, something he had

not quite felt in formal education. While he had a few startup ideas already in progress, his long-term goal was to start something that he was really passionate about and own a majority share in the company. This vagueness was normal for participants in my sample, and was indicative of the kind of constant adjustments between objective chances and subjective aspirations that lacked an occupational identity when one stepped outside credentialism (Bourdieu, 1984a; Standing, 2011). Watching his mother lose control of her company during the financial crisis taught Derek to never give up a majority stake in something he cared about, he recalled, but keeping a majority stake meant becoming a jack-of-all-trades. Derek used open learning to teach himself about all the various aspects of running a business, from programming and hiring developers to financing, marketing, and the kind of lifestyles that suit entrepreneurs.

Liam, a white man in his mid 20s, did not start out as someone who wanted to work in a more entrepreneurial setting. In fact, watching his peers struggle to find jobs after college pushed him to pursue a graduate degree to hopefully ride out the recession. Liam notes that he was not financially affected by the crisis or recession, but describes the influence that the two had on his future:

Okay. So, financially, no....In terms of what I was going to try to do after I graduated, sure. Because you're in this insulated bubble of college. And you're looking outside it things are increasingly scary because of the fact that there's no jobs. There's even less likelihood of a kid deciding to look, student, whatever, outside of higher education for a job. So, I think I'm sure the economic climate played a role in me deciding to, like, "Oh, what am I going to do?" Okay. Then went to graduate school for higher ed.

Liam did not directly lose a job or struggle with unemployment or underemployment. In fact, Liam was careful to describe his own financial security:

I think, financially, I can't say I was impacted. Because up to then I was dependent. Then I had a graduate position that paid for me just to learn. I think it was more of a mindset.

This "mindset" was apparent in the twelve people classified as proximally precarious. The mindset meant that a person would have to attempt a more than historically typical (or even possible) level of control over their future employment prospects. The mindset was embracing a risk shift from institutions to individuals in order to solve social problems like labor market precarity (Hacker, 2006; Neff, 2012). Liam eventually graduated from his degree program, but still found a difficult labor market. He had bigger aspirations than working as a low-wage administrator but also knew that job promotion was precarious in his field. When we met, he was in the middle of a several month long boot camp style learning program which cost about as much as one class at a typical liberal arts college. The full-time program was focused on churning out skilled employees for startups and helping professionals change their career path in an intensive learning program that relied heavily on open resources and teaching students to create their own learning opportunities. After obtaining a graduate degree, Liam went in a completely different direction in order to learn the kind of entrepreneurialism that dominated the technology field.

Elaine, a white woman in her late 20s, was also learning through open resources while enrolled in traditional higher education and described her decision to do so as part of a need to have "supplementary, tangible skills." She noted that while she was not personally affected by the financial crisis or recession, she did attribute the economic climate to the decision she had made to teach herself a

marketable skill through open resources before graduating. This decision was based off of watching friends of hers succeed or fail, which she related to their level of tangible skills:

Elaine: I was lucky, because I wasn't really personally affected. On the grand scale, I'm sure I was by the downturn of the economy, but I didn't know anyone who lost their jobs. I was able to find a job right after, so I was always lucky in that way. But, I do see problems with the educational system. And I think--until this year, my friends that were the most successful were the ones who learned actual skills in college. It was the music producers, and engineers, the ones that needed to have, music engineers, that needed to have a backup plan, are the ones that are making the most money, and are the most successful, because they have marketable skills. I went through it before I got my job, and I got certified in Google analytics, and Google ad words.

Interviewer: That's a skill.

Elaine: Yeah, but I felt like I needed to have the supplementary, tangible skills, that I could say, "Hey this is a tool that I know how to use." With statistics, I can do these things, or I can write. And I feel like, originally, my education gave me none of that."

Elaine was critical of traditional higher education for not teaching her these skills, something that would be echoed by others throughout the course of this study, so she took it upon herself to learn them. When Elaine enrolled in a graduate program she continued to learn through open learning in addition to full-time coursework. Elaine was a few months away from graduation when we talked, but she had already secured a full-time job that she would start after graduation. Even though the job was within her field (marketing), the skillsets she would be using at that job were ones she had taught herself. Elaine even found the job through skills she learned through open learning. While at a conference she had found through friends she made on Twitter, Elaine came across a tweeted job ad from a company she admired. She quickly coded a site with her resume and portfolio to show off her creativity and

willingness to do things differently than the status quo. After replying to the tweeted job ad with a tweet of her own that included a link to the site, Elaine was invited to meet the employer that day for an interview and walked away from it with a job. For proximally precarious participants like Elaine, traditional higher education was not considered enough to guarantee one a secure future. These participants were taking steps to ensure their future through entrepreneurial projects they could control. Open learning taught them the skills they lacked so they could face the labor market head on. In the next section, I consider how and why respondents utilized open learning that did not report being affected by the crisis and recession.

3.3.3 Ideological Challengers

The additional eight participants in my sample did not report experiencing precariousness as a result of the crisis and recession. These individuals were learning the kind of entrepreneurial skills valued by the technology field and were often already employed in that field. In addition, some of these individuals were educators and advocates vocally committed to open learning as a way to transform learning and labor. I call this group that was unaffected by the crisis and recession “ideological challengers” because they had transitioned away from credentialism and were utilizing open learning as a way to transform learning and labor. Jin and Mei, for example, acquired technological skills through a mix of higher education and open learning prior to the crisis and recession and were both currently working for small startups when I interviewed them. Jin, an Asian-American male developer

who was in his mid 20s when the crisis happened, was working for a successful startup at the time of the financial crisis and reported leaving that job because it no longer interested him. Jin described the short-termism of his jobs and contracts as something within his control. His autonomy allowed him to pick and choose what suited him, how much he wanted to work, when he wanted to work, and whether or not he wanted to work for or with someone or work alone. Jin is another example of Standing's (2011) claim that not all members of the precariat are victims, and that some people desired flexible work relationships. Jin's current position in the flexible labor market was one that participants like Andre and Mike aspired to through their open learning.

Jin's use of open learning started long before MOOCs and sites like Codecademy were invented. Jin had taught himself to code at a young age and continued to teach himself through open resources through college. He reported barely graduating, but having several job opportunities post graduation because of his skill-set. Similarly, Mei, an Asian-American female, was around the same age when the crisis happened and also had no story about the economic downturn that made it clear that she was affected. Mei critiqued higher education for not being practical and also for teaching young people to be status seeking. Her open learning came through her own education in usability, a discipline that helps companies determine how useful their websites are to clients and patrons. Mei took classes on the side while at her startup job, which encouraged her to continue her learning in the evenings. For both Jin and Mei, open learning was a necessity of their high-skilled, ever-changing jobs. If either of them stopped learning, the next advance in

technology would leave them behind. Still, they both desired their flexible work relationships (at the time²⁷) and enjoyed the challenge of constant re-skilling. They both advocated for open learning as a way to truly change a destructive relationship between higher education and the labor market and thought open learning could influence people to live more socially connected lives that could cut down on conspicuous consumption. Open learning was thus an ideological challenge and not simply a buffer strategy for a precarious labor market.

Jin and Mei represented the more technologically skilled ideological challengers, but they were joined by people like Alexandra, a white female in her mid 20s, who was at the forefront of open learning as both an innovator and learner. Alexandra discussed no effects from the economic downturn, but she was committed to bridging access gaps in education through open learning and educational technology. Alexandra came from a wealthy background and yet simultaneously was downshifting aspects of her life in order to live more connected to her peers, while eschewing mainstream status markers like owning a home or entering into a monogamous relationship. To Alexandra, open learning was part of a larger collective shift. While she did not experience precarity or mention any proximity to it, her concerns with access and equity were flavored with a desire for system level change that would leave less people vulnerable to volatile financial markets in a precarious system. Alexandra was getting an Ivy League Masters degree at the time of this study, but was taking classes part-time so she could remain employed at an open learning company. She was one of the few people in

²⁷ Both Jin and Mei would report dissatisfaction with this unchecked pace to varying degrees in follow up interviews.

her cohort enrolled part-time, but she defended her choice with a belief that learning should never happen too far from the world in which that learning would be used. Alexandra was similar to Kam, who opened the last chapter, in that they both believed that formal education was not the best way to liberate people from lives that were lived for the benefit of big power structures. Both Alexandra and Kam, while well placed within the power structure of formal education, claimed little affinity to these structures and saw themselves as cultural renegades. Kam rode his bike everywhere so he was never on someone else's schedule. Alexandra went to school part-time to show that her education did not define her. Autonomy was critical for Alexandra and Kam, but so was making a contribution to the commons. In the discussion, I consider these ideological challengers further as the leaders of a challenge against the status quo of learning labor, and begin to show how they converged with the interests of materially and proximally precarious open learners.

3.4 DISCUSSION: PRECARIETY, LEARNING, AND LABOR

In this chapter, I detailed the nature of precarity in the pedagogy of precarity. I then showed how open learning is understood within precariousness as a broader social structure and contextualized precariousness in the lived experiences of my participants, focusing specifically on their experiences with the 2008 crisis and subsequent recession. I found that a majority of participants in my sample (26 out of

34) reported materially precarious and proximally precarious experiences as a result of the crisis and recession. The additional eight participants, whom I call ideological challengers, did not report precarious experiences as a result of the crisis and recession but were working in flexible, sometimes short-term jobs that required constant reskilling and upskilling in order to stay relevant. This reskilling and upskilling, it should be noted, was not being paid for by employers and was instead understood as the personal responsibility of individual workers. Materially and proximally precarious learners were learning how to labor in flexible job markets by focusing their open learning on entrepreneurialism. In the next chapter, I discuss this more as part of the “pedagogy” of the pedagogy of precarity. For now though, I have shown the nature of precarity in my sample and in doing so can start to comment on some of the conceptual and theoretical challenges framed in chapter 1.

First, by analyzing the lived experiences of precarity in my sample, I begin to offer an explanation of how my participants converge on a challenge of the status quo of learning and labor. Bourdieu (1984a) is insightful here, in that he shows the differences in how diploma inflation is experienced by working class young people and middle class people with more economic and cultural capital. In his analysis, working class young people develop a distaste and distrust of an institutionalized social order that relies on credentialism because their own qualifications are devalued. Thus, “in some cases the qualification holder finds he has no other way to defend the value of his qualification than to refuse to sell his labor power at the price offered; the decision to remain unemployed is then equivalent to a one-man

strike” (Bourdieu, 1984a: 143). Middle class young people instead move into less bureaucratized spaces that rely on “cultural fit” rather than credentials. As noted earlier, these spaces are much like the technology field of today and the myths that surround it as an employer of people who can do the work rather than people who are credentialed to do the work²⁸. In my sample, however, the lines between working class and middle class are not predictive in terms of how participants experience a systematic devaluing of qualifications after a historical contingency like the crisis and recession.

The majority of my sample experiences precarity and participants have similar responses to their precariousness. Aspirations of more autonomy are played out through the learning of entrepreneurialism. More autonomy though is not just an aspiration for a different kind of work; it’s an aspiration meant to buffer future labor exploitation. Precarious participants do not talk about protecting their investments in higher education; in fact, they sometimes outright denounce them. This does not mean that they are not committed to maintaining status aspirations, and those status aspirations remain a commitment regardless of whether one was reproducing their status or becoming socially mobile. Instead though, they maintain these aspirations through an entrepreneurial vagueness that does the work of adjusting objective chances and subjective aspirations. By learning this entrepreneurial vagueness, they start to have more in common with their non-precarious peers that are already learning and working in the technology field. These non-precarious peers, or ideological challengers, have mastered

²⁸ For example, see Friedman (2014) on why Google allegedly does not hire top graduates.

entrepreneurial vagueness as a euphemism for the risky adjustment of objective chances and subjective aspirations. By denouncing credentialism and uplifting open learning as a way to create more equitable and connected systems of learning and labor, ideological challengers valorize the risky entrepreneurialism of precarious learners. Thus, the challenge to the status quo of learning and labor is still Bourdieusian in that it is a challenge based on the maintenance of status positions and it depends on the valorization of forms of capital that were previously denigrated. In chapter 5, I explore this valorization further as a conformist taste for necessity. However, this challenge revises Bourdieu's model by theorizing how different experiences of precariousness combine across class backgrounds to form a challenge. In order to characterize this challenge further, I must first show in the next chapter how this challenge is pedagogized, or in other words, how it is made into a valid system of knowledge transmission.

In the next chapter, I show how a commitment to social capitalism and autodidactic communalism, a credential-less relationship between learning and labor, becomes taken-for-granted in how participants in my sample learn through open learning. Combined with the description of precariousness in this chapter, I begin to illuminate another conceptual challenge from chapter 1: how participants understand the boundaries and relationships between learning and labor in this study. In this chapter, I have elements of both learning to labor and learning as labor. Liam and Elaine were learning new skills that were valuable in a precarious labor market. Arguably, they were learning-to-labor and their learning could be understood through the narrative of "skillification" and 21st century skills (McMillan

Cottom, 2017; Newman and Winston, 2016). This narrative would say that their formal education was out of step with the realities of the labor market, and that they are like many others in their generation that missed out on learning the 21st century skills that are now being taught to children (Ito et al, 2013). The weakness of this narrative is that it normalizes structural forces like declining employer and government investments in training and makes the assumption that people like Liam and Elaine are personally responsible for learning relevant skills (e.g. McMillan Cottom, 2017; Hacker, 2006). Learning entrepreneurialism through open learning, while ultimately an efficacious strategy, is not without structural consequences.

I also see elements of learning-as-labor, especially among participants who intend their entrepreneurialism to bridge into actual entrepreneurship. Learning as labor is also understood as an investment, but not just in relevant skills for a precarious labor market but also as a fantasy of escaping that market by becoming capital instead of labor. Learning-as-labor is evident in the entrepreneurial vagueness of people like Derek, who professed that he just wanted to have a majority stake in something he built that was important to him one day. He did not hope to have any one single role mastered, but instead hoped to be in charge of them all and responsible for how they work together. Derek was experiencing everything as pedagogical, as Beller (2011) stated, where “everything intelligible serves as a template for a lesson” (124). In the next chapter, I will continue this discussion of learning and labor after showing how precarity and the challenge to the status quo of learning and labor becomes pedagogized.

4.0 LEARNING-TO-LEARN: TRAINABILITY AND AUTODIDACTIC COMMUNALISM

4.1 KEITH: DOCUMENTING HIS LEARNING FOR OTHERS

I think really the process of putting learning into your own hands like that and saying, 'Okay, I want to learn something. I've got to find some resources. How do I structure this? How do I make it work for me?' Yeah. It's all about learning how to learn in a sense. - Keith

Keith thought about his open learning often, so much so that he maintained a website where he documented his learning and taught other people how to access the same sites while giving advice on how to make the most of their learning. Keith hoped to one day consult on the content that he curated on his website. When we met, I was helping facilitate a class at a non-profit open learning site and Keith was one of the learners in the class. He stood out to me as someone who was very thoughtful about his open learning and was one of the first people I talked to when I was getting my feet wet with participant interviews in late 2012. What struck me about Keith, a white male in his late 30s living in the Midwest, was his extraordinary sense of engagement and his passion for learning, despite the very real challenges he was navigating in a post-recession economy. Keith had stopped searching for a job when we first spoke, meaning that he would not have been captured by

unemployment statistics. For Keith, not working was not giving up; instead, not working was a chance to become more politically intelligent and re-evaluate his values, his practices, and his future.

Keith's parents had graduated from college and in high school he remembers being encouraged to attend college. Like so many young people, Keith was unsure about what he wanted to study and that made him reluctant to go to college without some sense of direction:

That's how I was brought up. You go to high school. You go to college. That's what you do. But even back then I remember having a resistance to wanting to go to school just for the sake of going to school because I didn't really have much of a passion back then for a particular field. Like a lot of people, I didn't know what I wanted to do.

A sales person for a for-profit college approached Keith and talked to him about a program in a nearby large city where he could obtain a bachelors' degree in a highly sought after technical field. Convinced by the sales person, he recruited a few friends to enroll in the program with him and they moved away together to the city. Keith graduated, though a few of his friends did not, and a series of false starts eventually left him unemployed. He moved home and his family helped him find a position working in the profitable energy industry, where he spent his time on the road and in trailers working long hours but earning a generous income. With very few expenses in his life and little time to spend money, Keith managed to build sizable savings before the financial crisis hit in 2008. The crisis took a toll on his company and Keith lost his job as a result.

At first unable to find work, he decided to live off his savings and tried to ride out the economic downturn. Around the same time, open learning websites were

starting to become more and more prominent and Keith began his open learning. He also found a local Occupy Wall Street chapter and started volunteering while learning more about the downturn and how it was affecting his community:

I've never really been that politically intelligent, I guess. So I was starting to jump into that more (Occupy) and try and analyze that whole space and figure out what the hell happened.

Keith's involvement with Occupy gave him a glimpse of inequality that he had not quite understood before and he learned about local initiatives to alleviate inequality while volunteering with different organizations. During that time, he was also using at least five different open learning sites along with several blogs to learn programming and other technological skills, self-provisioning skills, and a foreign language. He recalled a turning point when he learned about the digital divide and started thinking about open learning's potential to alleviate inequality. By his estimation, he could do more for disenfranchised people if he could help them navigate the open learning world and so he started organizing resources he used into a learning guide:

I felt like I could make a bigger impact by trying to kind of organize some of the information in this phase and find ways to make it available to more people. I feel like a lot of the problems wouldn't exist if more people were aware of what's going on.

By bringing awareness to learning resources in an organized learning guide, Keith felt like he could make a bigger impact than organizing with Occupy. The guide contained some of his best practices as well as a list of resources available online.

When asked about how he structured his learning, Keith talked about a practice called "chunking" that started to gain popularity in the open learning world a few years after we first spoke:

So, that's been one thing I've been focusing on is trying to kind of modularize my learning and break it into reasonable chunks kind of, try and find things that I've been doing as I take other projects and find ways to put them out there so that other people might be able to make use of them as well. In that same process, I feel like I enhanced my own learning because I put a little more thought into how it's packaged and how I'm tying everything together.

Keith estimated that he was "learning how to learn" by figuring out how to structure his learning. By packaging what he was doing so that others could learn from it, too, he developed a better command of the content he was learning. He also learned that feedback was an essential part of his learning process, so he set himself up with opportunities to give and receive feedback throughout his open learning.

Keith is an example of how participants made sense of the endless content available to them through open learning. First, he found what interested him. At the start, that was learning about the recession through Occupy Wall Street and learning about his community through volunteering. As he spent more time online, his passion became the digital divide. Like the New Communalists discussed in chapter 2 (Turner, 2006), Keith "turned away from political action and toward technology, social connection, and the transformation of consciousness" to create social change (4). By curating a guide for open learning, Keith styled himself as an expert on the content and hoped to eventually consult on the topic. The nitty-gritty of his learning came down to organization and structure. He talked about breaking up his learning into small chunks and his website became a portfolio project where he could apply and show off his learning. These documented small chunks added up and helped him build his interest into expertise, while signaling that expertise to others. Also, Keith sought out opportunities to give and receive feedback. As he organized his learning for others online, Keith was at once teacher and learner, but he never set

foot inside a formal school during this journey and his learning came from several different sites rather than from one institution.

Despite Keith's desire for customization and finding a style that worked for him, he learned in a way that was similar to how other respondents learned. This chapter focuses on the coherent learning practices that structure participants' learning in the absence of a coherent institutional structure. These coherent learning practices, I argue, are one part of the pedagogy of precarity. In this chapter, I show how participants learn-to-learn and in doing so begin to adopt what Bernstein (1996; 2001) calls a "trainability." Trainability is "the ability to profit from continuous pedagogic reformations and so cope with the new requirements of 'work' and 'life'" (Bernstein, 2001: 365). These new requirements are the result of changes in the global economy that have allowed precarity to proliferate beyond those typically made most vulnerable by capitalism. The new requirements introduce flexible, short-term labor and a risk shift that makes individuals, rather than employers and learning institutions, responsible for training and education through life long learning (McMillan Cottom, 2017; Hacker, 2006; Bernstein, 2001). Trainability is the hallmark of life long learning, and as such it becomes a new kind of privilege, silently and symbolically transferring to its acquirers a means of status maintenance or enhancement. Trainability "places emphasis upon 'something' the actor must possess in order for the actor to be appropriately formed and reformed according to technological, organizational, and market contingencies" (ibid). This chapter focuses on the learning practices of trainability and in the next chapter I explain how these learning practices combine with "learning-to-belong" in order to

show how participants develop the “something” that Bernstein theorizes in his definition of trainability. For Bernstein (2001), that “something” is not just critical for trainability, but “is now critical to the survival of the actor, crucial for the economy, and crucial for society” (365).

4.2 PEDAGOGIZING PRECARITY AND CHALLENGE: WHAT AND HOW ARE THEY LEARNING?

In the last chapter, I noted how participants at times denounced their investments in formal higher education and valorized their entrepreneurial open learning. In this chapter, while chronicling what and how participants are open learning, I also show how some participants compare their open learning to their time spent in formal education. While I argue that the pedagogy of precarity is a “new” style of learning, I am not necessarily positioning it against learning that happens in formal education, even if my participants do at times. Within my methodology and the scope of this study, I have no way to account for how participants learned in formal education beyond what they reported. I did not analyze the pedagogy of their past experiences and it would be wrong for me to set up formal education as having a monolithic pedagogical form. Plenty of schools, teachers, majors, etc. engage in multiple curricula and pedagogy and there was significant diversity reported in this sample. For example, Nita and Mark were both enrolled in a college that offered time off from coursework in order to apprentice with an organization as part of the required college curricula. Andre took classes in

big lecture halls but also spent part of his time being mentored directly by a faculty member as part of a minority research fellowship. Marco earned college credit through online coursework while enlisted in the Marines as a reservist and working full time. I am not arguing that the newness of the pedagogy of precarity is in direct contrast with formal education. However, what makes the pedagogy of precarity “new” is that it attempts to reconfigure a relationship between learning and labor different from the one embodied in credentialism. In doing so, it steps outside formal education and the supports offered in institutionalized education, like professionalized educators, tutors, preconfigured curricula, and evaluation opportunities. Thus, by calling the pedagogy of precarity a new *style* of learning, I am arguing that it is structured by a set of coherent practices that are self taught within flexibly social communities, or in other words, it is the practice of autodidactic communalism. While some of these practices may appear elsewhere or even within formal education, I argue that they have a specific pedagogic discourse and in the next section analyze their pedagogic discourse.

Before doing so, I want to note one more thing about this new style of learning: the pedagogy of precarity is what Bernstein (2001) called a “pedagogic panic” and it seeks to fashion all things as pedagogic. Bernstein (2001) warned²⁹ that the spread of neo-liberal global policy would introduce a pedagogic panic that could mask a moral panic. This pedagogic panic, he argued, would inspire a “totally pedagogized society (TPS)” that seeks pedagogic solutions to deepening moral problems. We would recognize it by its focus on relevance and competencies, its silencing of

²⁹ Bernstein passed away before completing the next volume of his work that would theorize trainability in totally pedagogized societies (Sadovnik, 2001).

meaningfulness and the past, and its social emptiness (Bernstein, 2001). Keith almost avoided this pedagogic panic after the recession when he engaged with local political organizers, but then emerged as an expert on it by documenting the intricacies of his open learning. His story is a great example of pedagogic panic and begs us to consider what is masked when we pedagogize precarity. I will return to this question in the discussion after detailing in the coming pages how participants learn-to-learn.

4.2.1 Pedagogic Discourse

In the last chapter, I discussed how precarity was experienced by participants and theorized how an entrepreneurial vagueness worked to maintain the status aspirations of precarious participants despite worsening objective chances to achieve those status aspirations in the labor market. Precarious participants reported using open learning as a way to learn entrepreneurialism in order to buffer a bad labor market. I also showed how ideological challengers had already become accustomed to open learning as an autonomous, albeit connected mode of learning and utilized it to challenge the status quo of learning and labor. In this chapter, I explore how precarity and a challenge to the status quo of learning and labor become pedagogized, that is, how they converge as a valid transmission of knowledge. In order to do so, I analyze what and how participants are learning and analyze the pedagogic discourse (Bernstein, 1996) of their learning. I show that they “learn-to-learn” through an instructional discourse of entrepreneurialism that

teaches skills that is then recontextualized by a regulative discourse of communalism that teaches social order and values. Entrepreneurialism and communalism speak as one voice (Bernstein, 1996) and are thus one pedagogic discourse. In this section, I introduce Bernstein's theory of pedagogic discourse.

Bernstein describes pedagogy as a model of symbolic control that "attempts to shape and distribute forms of consciousness, identity, and desire" (1996: 201). He argued that pedagogy acts as a relay, that is, he focused on not just what is being transmitted through pedagogy (contents) but also *how* it is being transmitted (contexts). Bernstein (1996) comprehensively describes pedagogy as a relay by outlining a theory of "social grammar" or "pedagogic discourse." In his theory of pedagogic discourse, an instructional discourse relates to the transmission of skills and the regulative discourse relates to the transmission of values:

Pedagogic discourse embeds rules which create skills of one kind or another and rules regulating their relationship to each other, and rules which create social order. We shall call the discourse which creates specialized skills and their relationship to each other *instructional discourse*, and the moral discourse which creates order, relations, and identity *regulative discourse* (Bernstein, 1996: 32).

The instructional and regulative discourses cannot be kept separate in Bernstein's theory, because the 'regulative discourse provides the rules of the internal order of instructional discourse itself' and is therefore dominant (Bernstein, 1996: 34). This distinction, that pedagogic discourse is one voice, is important because it allows for differences in how skills and social values are taught. For example, in my study, two somewhat paradoxical discourses are present: entrepreneurialism and communalism. These discourses were first introduced as a negotiation between autonomy and the commons in chapter 2 when discussing the New Communalists,

Open Source Software development, and the Californian Ideology. In chapter 3, they appeared again in participants' rationale for utilizing open learning: as an entrepreneurial buffer for precarity and a challenge to the status quo of learning and labor through autodidactic communalism.

It would be tempting to only focus on entrepreneurialism or communalism, as many have in their critiques and praise of open education. For example, Barkawi (2013) criticized open education as a "Neoliberal Assault on America," to quote the title of his article and Hall (2013) called MOOCs specifically:

...a global pedagogic project aimed at subsuming the whole of social life under the treadmill logic of capitalism. It is a project that seeks to deny sociability and to enforce individuated entrepreneurial activity (Hall, 2013)³⁰.

In Hall's (2013) assessment, pedagogy in open education cannot be autonomous and communal, it cannot be entrepreneurial and also a project that revalues sociality. In my study, entrepreneurialism and communalism are two sides of the same pedagogic coin and to describe one without analyzing its relationship to the other would do injustice to the pedagogic discourse of open learning in my sample.

Ultimately, pedagogic discourse "selects and creates specialized pedagogic subjects" through the what and how of learning, or the contents and contexts of learning. I argue that the contents of learning in my sample are largely entrepreneurial and that the contexts are communal. In the next section, I discuss what and how participants are learning in terms of Bernstein's instructional and regulative discourses.

³⁰ See also Hall (2015) for a study of the political economy of MOOCs, which argues something similar regarding neoliberalism.

4.2.2 Instructional Discourse: What are they learning?

In chapter 3, I showed how entrepreneurialism was related to participants' experiences with precarity and argued that an entrepreneurial vagueness did the risky work of adjusting subjective aspirations with objective chances (Bourdieu, 1984a). Precarious participants aspired to work that was more entrepreneurial and autonomous, thus equating entrepreneurialism and autonomy with protection from precarity. Their open learning, therefore, was experienced as a way to learn the specialized skills of entrepreneurialism. In the pedagogy of precarity, the "what" or contents of learning are entrepreneurial. I found that this entrepreneurial learning contained several specialized skills that could be classified into four areas in my sample: programming, startup and business development, liberal arts or professional school equivalents, and lifestyle skills.

1. Programming

Out of 34 participants, 23 had at one time learned or attempted to learn a programming language through open learning. For some, that meant becoming proficient at HTML/CSS, Python, or Ruby on Rails to code their own project or work for a startup. For others, that meant learning enough programming to understand the syntax in order to effectively converse with developers on a project.

Programming was the ultimate autonomous skill and throughout fieldwork I observed how programming was talked about as an in-demand skill for several reasons. Programmers could work within companies, but they could also branch out

on their own with a couple of friends to start a business. Programming was also talked about as a “side hustle,” a way to make money off of small contracts and projects. For example, by learning HTML/CSS, a person could have a regular 9-5 job, but also make money on the side designing websites for others. Or, by learning HTML/CSS, a person could code their own website even if they had no desire to work as a developer in the future. Finally, by understanding a bit of programming, non-developers could better pitch their ideas to developers and have an idea of what is possible, or they could hire developers with an idea of the person’s skill level. For example, in an HTML/CSS class I took (where I met Mike), the instructor tailored the class to non-developers and gave people in the class an idea of how to spot habits of a good developer by looking at how developers coded their CSS style sheet. The rationale was that we could presumably be hiring developers one day as future entrepreneurs, and that we needed to know how to get our money’s worth from someone. This rationale was given as a way for us to mitigate the risk of having to screen and hire our own job candidates, many of whom would lack official credentials. Thus, even when not learning programming to become an autonomous entrepreneur, programming literacy was billed as a way to make good decisions as an entrepreneur.

2. Startup or Business Development

Twenty-six out of the 34 were also learning skills relevant to startup or business development. These skills could include search engine optimization (SEO), which is a marketing skill for increasing web traffic to sites. Or, it could include

attending online and offline seminars about funding sources. I attended one of these seminars with Taylor and we learned the differences, success rates, and motives behind venture capital, angel investments, and bootstrapping³¹. These seminars were tailored to future entrepreneurs and were taught as “how to” guides from seasoned entrepreneurs. Another startup and business development skill I saw participants learning was customer segmentation, a method for analyzing your customer base in order to plan more efficient marketing. I attended a customer segmentation class, also taught by a successful entrepreneur, and was able to not only walk away with a sense of how customer segmentation works but also a professional contact who was willing to help me learn more about it if I wanted. Startup and business development skills were being learned by participants online and offline, but the learning did not typically stop once a skill was learned. During field work and from participants’ reporting, I found that the people who were teaching startup and business development skills or writing about it online were very approachable and welcomed opportunities to answer questions or mentor new entrepreneurs. Marco, for example, talked about video chatting with his hero, Gary Vaynerchuk, and being featured on a podcast with Pat Flynn after sending him a few emails with questions. Vaynerchuk and Flynn are both well-known successful entrepreneurs, and they both were committed to helping out new entrepreneurs. I will talk about this more in the next section on regulative discourse.

³¹ A term that refers to piecing together a company with one’s own resources, typically in a context where resources are relatively small. Participants who bootstrapped their companies talked about giving up their apartment leases and living in their offices in order to afford to stay in business.

3. Equivalent Content for Liberal Arts and Professional Schools

In addition, 22 out of the 34 were learning some kind of liberal arts or professional school equivalent content. For some, that meant using Khan Academy to supplement coursework if in college or graduate school. For a few others, that meant trying to complete an entire degree equivalent through open resources or taking courses they did not have access to in their education, like statistics. Mostly though, participants lurked in MOOCs that piqued their interests, passively participating in classes on poetry and history. For these learners, liberal arts or professional school equivalent classes were mostly meant to round out their learning and were not the focus of their learning. That is, even though so many people were engaging in learning liberal arts or professional school equivalents, they did not make up a significant portion of what they were learning and were instead more auxiliary to their other learning. However, this liberal arts and professional school equivalents were still understood as entrepreneurial by participants. In her study of dot.com employees, Neff (2012) showed how non-entrepreneurs, whom she refers to as “venture laborers” explicitly expressed entrepreneurial values by taking on risk for a company and becoming responsible for their own continuing education. In my study, participants who learned liberal arts and professional school equivalents were not necessarily doing so to become entrepreneurs (although a few did), but to be in charge of their own learning, in a way similar to Neff’s (2012) venture laborers. For example, Jimmy dropped out of his college classes when he realized he could take similar ones through the same university through Coursera. Surprisingly, he did not reference cost as a reason for

dropping the traditional course. Instead, Jimmy liked that the Coursera class offered him flexibility and the ability to learn autonomously, to be in charge of his learning. Similarly, Erin stopped using her nursing school textbook and started watching video lectures on the same topic on YouTube. She liked being able to control the content and choose what she wanted to learn, and in a way became the boss of her learning.

4. Lifestyle Skills

Finally, 22 out of the 34 were learning “lifestyle” skills. These included pop psychology classes and seminars that taught you how to live a happy life or how to attract wealth. It also included hero-worship of successful entrepreneurs on Twitter, like Gary Vaynerchuk or Mark Cuban. From these seminars, participants learned how to “get things done” as one participant stated, how to attract friends (or even women, as another participant boasted), and how to stop making excuses and start finding solutions in their lives. These lifestyle skills were meant to make participants more productive, to help them make better decisions, and to help them ultimately succeed at their ventures. Even when learning something like mindfulness, participants were learning entrepreneurialism by learning skills that would make them more productive or focused in order to optimize their lives. The instructional discourse in my study was largely entrepreneurial, and in the next section I show how it was recontextualized with a regulative discourse that was communalist.

4.2.3 Regulative Discourse: How are they learning?

While some of the above skill and content areas may not look entrepreneurial on the surface, Bernstein would remind us that the instructional discourse is ordered by rules from the regulative discourse. Pedagogic discourse, Bernstein (1996) argues, is a recontextualizing principle “which selectively appropriates, relocates, refocuses and relates other discourses to constitute its own order” (33). The order of pedagogic discourse is determined by the regulative discourse, which is a moral discourse. The regulative discourse is the dominant discourse and in this section I show how communalism orders entrepreneurialism.

The recontextualizing principle recontextualizes the how of learning, or the “theory of instruction” which “belongs to the regulative discourse, and contains within itself a model of the learner and the teacher and of the relation (Bernstein, 1996: 34-35). The model of teacher and learner in formal education is typically one where the teacher is the authority that instructs the student. In open learning, however, that model changes. Peers are more responsible for teaching and learning from each other, even in MOOCs, which most closely model the traditional classroom experience. The peer-production and consumption of knowledge, arguably, would then have to include some element of sociality or sharing of knowledge resources. In his work on peer production, Benkler (2002; 2004) acknowledges how there are competing sensibilities in the social relations of sharing, much like there are competing sensibilities here between entrepreneurialism and the commons. Benkler (2002; 2004) argues that peer

production, which is rooted in the open source software community, allowed for flexible social relations rather than strong commitments, and in doing so allowed for the kind of autonomy that developers preferred in their work. However, these developers still kept the commons as a kind of “north star” and maintaining the commons was a well known and practiced moral commitment (Ouishare TV, 2016).

In my study, precarious learners were guided by a moral commitment to the commons that was practiced and preached by ideological challengers. Ideological challengers utilized open learning as a way to hack institutional life and social norms that they viewed as inaccessible, dull, irrelevant, and socially unjust³². Ideological challengers envisioned a more connected, communal, cooperative society that could provide for itself through the aid of technology (e.g. Turner, 2006). Ideological challengers were also learning entrepreneurialism, but did so with a communal grand strategy of challenging the status quo of learning and labor. This challenge resonated with most precarious open learners, who needed a better aspirational pathway than entrepreneurial vagueness. In this next section, I show how that pathway began to appear in the coherent learning practices utilized by all participants. These practices are a form of autodidactic communalism, in that they are self-taught by learning from others. Thus a regulative moral commitment to communalism recontextualized entrepreneurial instruction in my sample.

The pedagogy of precarity, as a new style of learning, requires that participants learn how to learn in this new style. In the next section, I show how participants learned-to-learn autodidactic communalism. Sefton-Green (2013)

³² I discuss this more in the next chapter.

states that knowledge in informal or not-school spaces is not strictly limited to knowledge about content. Knowledge is also understood at a meta-level, in what is described as meta-learning or learning-to-learn. Learners described having to adjust to this new style and the next section is a compilation of that adjustment, or how they learned-to-learn. Learning-to-learn first starts with a process of interest development, which helped participants decide where to start their learning and gave them a sense of control over their learning. Then, I show how participants “learned like a programmer” by: 1. Chunking material to create a process, 2. Working on projects and problems to learn by doing, and 3. Creating and recognizing opportunities to give and receive feedback. By learning-to-learn, participants begin to adopt what Bernstein (1996; 2001) calls a trainability. As mentioned earlier, trainability is “the ability to profit from continuous pedagogic reformations” and thus cope with precariousness. I discuss this further in the final section of this chapter.

4.3 LEARNING-TO-LEARN: RECONTEXTUALIZING

ENTREPRENEURIALISM AND COMMUNALISM

4.3.1 Interest Driven Learning: Engagement, empowerment, and expertise

I learned this recently about myself--and this is kind of also a philosophy that I've been reading about from, you know, thinkers and, like business people--is that the prerequisite to learning is enthusiasm. -Derek

One major pitfall of entrepreneurialism as an instructional discourse is that participants had to navigate the vast amount of resources available in the open learning world and decide on their own which ones to use. Molly, like the majority of learners in my sample, followed what interested her: “I am very interest-oriented, and so anytime something fascinates me, I can’t not sit down and learn as much as I can about it.” Molly first had a taste with interest-driven learning after leaving her graduate program in counseling for an interdisciplinary graduate program that she was able to design. Molly chose to learn everything she could related to career counseling, and in the process, was able to piece together classes within the graduate school to create that degree, along with independent study courses supervised by an academic mentor. When Molly graduated, she could not find work in her field. She eventually found a job as a preschool teacher and undertook a learning style similar to her interdisciplinary program. Molly followed her interests and began teaching herself everything she could about teaching children, but this time without direct supervision or mentorship.

Without her experience with the interdisciplinary program, it is hard to say if Molly would have had such an easy time giving herself permission to learn whatever she wanted. When learners followed what interested them, they were essentially following their passions and were sometimes hesitant to welcome enthusiasm into the learning process. Some open learners talked about the process of unlearning the resistance they had internalized to learning something that made them enthusiastic. Derek, a startup founder and former engineering graduate student, recalled the excitement he encountered when joining the entrepreneurship club in graduate

school. That excitement turned into a personal enthusiasm for learning, except not for the learning he was paying for as part of his expensive graduate program. In the following quote, Derek qualifies his personal philosophy about enthusiasm as a prerequisite of learning with the legitimized opinions of “thinkers” and “business people”:

I learned this recently about myself--and this is kind of also a philosophy that I've been reading about from, you know, thinkers and, like business people--is that the prerequisite to learning is enthusiasm. And what I mean by that is if you're excited about something, you're going to be so engaged, and you're going to sponge up all the information...So if you kind of just say, “I just want to learn about whatever the heck I want to learn about,” and you just pick something that you're excited about, then all of a sudden it becomes this really cool experience, and you learn quicker, you internalize, like, the principles better. So I've learned that I don't always have to resist if I want to, like, learn about something random that I just think is really cool, then I should learn about it.

The legitimacy he signaled to when saying that he had read about other, presumably successful and powerful people who had the same philosophy, shows a departure from his own preconceived idea about learning. Further, when he described not always having to resist learning about something random that he thinks is cool, his remark supports the idea that interest-driven learning departs from a cultural norm about learning.

By starting with something they enjoyed or wanted to learn, learners owned their learning experience. When faced with excessive choice, interest-driven learning helped them engage and exert some control over the vastness of those resources. William recalled his best learning experience as a time when he was able to assert more control over what he was learning and how that learning was assessed. In one open class, he was asked to show that he had effectively learned a

web design skill and was given the option to either blog about it, write a short response on the class page, or link to something else that might show his competency of the skill. He was also enrolled in an open class on game making and was reading a book about board game design at the time. William had the idea to build a game for his assessment and link to it, a memory he described with considerable pride in his voice. When asked why it was his best learning experience, William said the following:

I think it was -- maybe it was the fact that I had a chance to -- I was engaged with both the material, with the way that I was being assessed, so the -- I had a chance to show what I knew about something in a way that I decided to. And I chose a way that was interesting to me and what I was trying to show was already interesting to me, because I had -- I don't know -- more control over my situation.

William also described “pushing myself a little more” and doing something “interesting, rather than the easy way out, you know, what you have to do to survive in a university program.” Notably, for William, the interesting project took more effort, but also kept him engaged through that effort because he could exert autonomy over his learning.

The shift from enthusiasm to control was important for open learners, especially as interest development became a precursor to the development of expertise. Before expertise could develop, learners must first feel confident in their abilities to make their own choices and guide themselves through their open learning. Annie described coming to the United States as a person with very little confidence and little experience guiding herself in any process. By learning what interested her, she started to grasp how to move herself forward in her learning.

Consequently, that process also changed her into a more confident and self-assured person:

I found out what actually interests me. I took the time to do that and now I've sort of learned to think about, like, what is my next step. Where before, I had to have someone tell me what to do.

In a previous paper (Carfagna, 2014), I noted how learners' interest development not only helped them decide "what" they were learning, but it also gave them clues to who they were or who they were becoming. In that paper, I argued that a narrative of self emerged alongside interest development for participants. Annie described an important transition that open learners experienced when learning how to structure their learning: moving from taking someone else's advice or a pre-determined structure of learning to entrepreneurially creating one's own opportunities and path for learning. That transition was evident among the majority of people in my sample of participants and its consequences went beyond just learning how to learn; it created an identity along with social, professional, and even economic opportunity that could challenge the status quo of learning and labor. That transition was dependent upon learners first developing interests, giving themselves permission to learn with enthusiasm or legitimizing their passion, and then learning to assert control over their learning process through interest-driven learning.

4.3.2 Learning like a Programmer: Chunking, projects, and feedback

I think it's, "I want to do X, in order to do Y, which will lead me to Z." I want to do it for this venture, but this isn't the end goal. This is just still a learning process. -Taylor

When conducting follow-up interviews, I received an email about the classes being offered on Coursera. I typically deleted these since finishing participant observation, when I had signed up for email notifications from every learning platform described by participants. For some reason though, I clicked on this one, and it showed me that one of their most popular new courses was titled “Learning to Learn” and a unit on the course was on chunking. Chunking is one part of Miller’s (1956) information processing theory, a theory cognitive psychologists use to explain how individuals can retain between five to nine pieces of information at a time. In this class, participants were being taught to break down their learning into manageable chunks, much like Keith described in the introduction to this chapter. The second part of Miller’s (Miller et al, 1960) theory was called TOTE: Test, Operate, Test, Exit. TOTE, a psychological cousin of iterative software development, would appear in my study as a form of iterative learning. In TOTE, something is tested to see if it works, like a computer program or one’s recall of a mathematical function. If the test fails, some operation is conducted to fix it, and then it is tested again. Exit only happens once the thing has been resolved, like the computer program working or the student successfully recalling and utilizing the mathematical function. In the first round of interviews and participant observation, this Coursera class did not exist and no one from my sample had taken it. Further, I had analyzed the data on how participants learned prior to finding out about this course. Participants described learning via the same process I later encountered in this Coursera course. While some platforms might have intentionally designed their

content experiences to mimic this style of learning, the style was also utilized by participants who did not rely on set platform curricula or who jumped around among resources.

4.3.2.1 Manageable Chunking: Learning to create a process

While interest-driven learning helped learners sift through vast amounts of content, most learners would have been lost or overwhelmed if not encouraged to break their learning into manageable chunks. Without a curriculum or even a clear path of study, learners had to learn the process of learning just as much as they had to learn to create products from their learning. Many open learning platforms did the work of chunking for learners, like Coursera, which only allowed for a few minutes of video to be played before learners had to answer a comprehension question. Sites like CodeAcademy offered challenges that were long enough to take a learner's thoughtful consideration, but short enough that they did not get overwhelmed. Also, several sites offered small badges or points for achieving completion of different chunks before unlocking the next chunk of learning. This process made it easier for less self-driven learners, like Mike, who needed a bit of direction in his open learning.

Mike had trouble finding a job during the recession and after consulting with peers he admired, they hired him in an entry-level position at their startup. After some time at his friends' company, Mike realized that there was a big need for developers and really wanted to learn how to be a developer so he could be "set for life":

And so I got this job and I was, like, “Okay, well there’s a marketable skill. That is as vocational as it gets, there’s a constant demand for these people. Like, if only I could do that I would be set for life.” I mean, I’d have to work but, like, I’d have a job...Well, I talked to one of the developer guys and I was, like, “Are there any classes I should take or whatever?” And he was, like, just, like, it’s all, like, you have to just do it yourself.

Mike spent time learning programming on CodeAcademy but got frustrated with bugs on the site. Needing more direction and in person interaction, Mike found a Skillshare class that was being offered locally with another open learning site called Wintrepreneur. I was also taking the class as part of my participant observation, and met Mike over refreshments after the course. In an interview a week later, he admitted to being frustrated with the daunting task of becoming a developer:

And I guess I’m just kind of frustrated. I don’t know, maybe I got bored, but what I’m trying to do now is do what the guy at that HTML class said, which is just, like, try to build that landing page that it would be, like, made in class or whatever.

In an informal interview with the founder of Wintrepreneur, the site that cohosted the Skillshare class, I learned that their instructors were encouraged to teach in a project-based manner. The teacher of the current class had given us the assignment to design a landing page using the HTML and CSS skills that he had taught in class. He was a young, successful developer in the local startup scene and was volunteering his time with Wintrepreneur as a way to give back to the startup community. The teacher had given us access to a completed landing page as well as a blank page for us to try and create our own, which he shared through Dropbox. After the class, we would be able to continue our experimentation on the small chunk of a coding project he had created for us. In an interview, Mike told me he was going back to the assignment to try and complete a small chunk of what a developer

might do. He then went to his company's founder, showed him what he had learned to do, and the founder gave him a project to do for the company that was of relatively equal skill level. Mike's small chunk enabled him to take ownership over his learning, which he was able to then present for feedback from his company's founder, who then gave him another chunk to learn. Chunking helped participants engage in autodidactic communalism by giving them small entry points to learn and present their work for feedback from others.

Taylor was more self-driven than Mike, but also knew that he would have to take on smaller projects as part of the learning process in order to get to a larger goal down the road. Taylor, a college student, was studying economics but found open learning after almost dropping out of school. He was concerned with how much he was paying for school, afraid of the high debt levels he would carry upon graduation, and was not engaged at all in school prior to starting his open learning. We met at a different class like the one where I met Mike and he was full of energy when I approached him. Taylor told me about how he could not wait to get out of class at his university, so he could ride his bike into the city and take free classes like the one we were just in. Taylor and I talked often throughout the study, sometimes over Twitter and sometimes over Skype because he was so excited about what he was doing that he just had to tell someone. Inadvertently, I became part of his autodidactic communalism, by being a person he could talk to about his learning. The night of our interview, we met at my coworking office, conducted the interview, and then walked over to another class in the city together, first stopping at a diner to grab dinner. Taylor was learning in all four of the categories I described earlier, but

his main focus was programming and startup development. When describing the website he was building for his small business venture, I asked if creating the business was part of where he saw himself in a few years:

I think it's, "I want to do X, in order to do Y, which will lead me to Z." I want to do it for this venture, but this isn't the end goal. This is just still a learning process. By doing this, I'm able to do this, which is going to enable me to end up here. It's more about the end goal where I want to be. These small projects, I'm not trying to make the next Facebook right now...

Taylor described organizing his learning by figuring out small tasks, like how to embed paypal onto his website, before moving on to new tasks. For Taylor, chunking small tasks introduced a coherence to short-termism. He did not have a specific end goal in mind, but his entrepreneurial vagueness was grounded in small tasks that achieved small goals, which could then build up to bigger goals. Chunking, in essence, was teaching trainability.

Erin used Khan Academy to help her chunk the information she was learning in her online science classes. Erin was working at a startup when we met at another class in the city on gamification, a model for user engagement that constructed the experience as a game, like how the popular wristband FitBit encourages participants to reach new levels for steps walked, complete with badges to signify their achievement. Erin had a Masters degree in gender studies and reported that after the recession no one really cared about hiring someone with a Masters in gender studies. She started working at a startup in a low level position and was encouraged by the engineers at the startup to start learning programming. Her boss also encouraged her and other employees to take classes like the one where we met. Erin learned to code on python and learned web development skills, but was also trying

to pass the necessary science classes she needed to enter nursing school. Erin was enrolled in online classes at a traditional university and she described her textbook as completely useless. Instead of getting discouraged, Erin formed an online study group with a few others from the class and introduced them to Khan Academy and a few YouTube channels that she thought did a better job of explaining the course content. Erin found that Khan Academy helped her to chunk out the concepts before going back to some of her required classwork:

So it's really helpful to watch a Khan academy video because he goes into details sometimes, but it's mostly conceptual. And he sort of explains things in a very relatable way without as much jargon. And so having those concepts is really helpful to then go back and learn the more detailed explanations. So I guess more conceptual and, again, maybe it's also part of the stereotype that, like, that it's not as hard as I thought it would be to learn some of these things.

Nita was also using Khan Academy in a similar way for a university class she was taking and notes how the videos were short and easily consumable:

I used it for accounting, and that was good because there were videos, and he's explaining it, and he's doing it at the same time. So that as, like, a visual learner, that was really helpful. And I would just, like, stop the video, like, write down what he did, and, like, try to, like, figure it out, and then, like, start the video again and play it. And they're really short, so it's, like, easily consumable and on your time, so I really like that one.

Chunking, even if for university coursework, empowered learners into thinking that they were capable of learning anything, as long as they could reasonably figure out the necessary chunks that built up to larger concepts. In a formal classroom, the class instructor would hopefully design this through a careful curriculum, though participants who were enrolled in college coursework at the time of the interviews did not feel like their learning was as well chunked in formal education. While again, it would be hard to assess if this is true within my methodology, the comparison

hinted at a kind of empowerment and lifting of the veil of education per se. Once experiencing their ability to chunk their learning, they could understand it in context with problems and projects.

4.3.2.2 Learning by Doing: Empowerment through projects and problems

And then in the second half of my day I would actually work on doing a project. And that's where the real learning occurs, right? -Andre

Many open learning platforms were designed based in the way that computer programmers learn programming. Jamie, an employee of one non-profit open learning platform and open learner herself, discussed with me how their platform was designed to scale the programmer experience to other content areas. Programmers, she remarked, were very used to learning by themselves, asynchronously, and from people they did not personally know, with the kind of flexible sociality that Benkler described (2002; 2004). The peer-learning driven platform was experimenting with courses set up as challenges, whereby learners were asked to solve a challenge within a community of peers and along the way would gain domain knowledge and critical thinking skills. Jamie cited the self-empowerment of programmers as the main inspiration for the culture of the budding platform community:

We're curious to see if we can spread that programmers' mindset, that type of learning, that, like, sponge learning, and, like, uber, uber, uber social peer learning to other topics. So we actively seek out people to organize kind of these fringe topics, these weird courses...Because what we found is that people don't come to [non-profit open learning site] randomly and say, "Oh, this is cool. I'm going to design this kick-ass course." ...People don't realize that they have that power. Only programmers, people who are used to that culture of empowerment, of "I can learn anything, I can teach anything, and

once I learn it I'm expected to teach it;" that doesn't exist anywhere else in the world. And so we're trying to secretly instill these big values into people of self-empowerment. That, in fact, even if you are not the expert in it you can still teach it. As long as you're organized and as long as you're motivated you can take any topic and learn it with your peers.

Jamie's description of self-empowerment among programmers echoes the process detailed in the previous sections, whereby interest-driven learning empowers learners to confidently take control of their own learning in a community of peers. In other words, Jamie's description of self-empowerment was a description of autodidactic communalism. Another critical piece of their learning was applying what they were learning, or learning by doing, as many participants described.

Andre talked about immersing himself in self-study when he was just starting to learn programming. He structured his day around self-study; the combination of genuine interest and the challenge of solving problems kept Andre sustained in his learning:

I kind of just learned to schedule to myself, like, nine to five I'll go to the library, I'll probably work on some lessons, I'll probably do some in browser activity stuff, watch a few Streamcasts, take a break, you know, like, you know, hang out, go to the park, eat lunch, whatever. And then in the second half of my day I would actually work on doing a project. And that's where the real learning occurs, right? But I guess I just had a passion for it where I would spend hours--like, six hours straight--trying to code or really getting it to work, and trying to build a website, and trying to figure it out that it didn't really seem like I was working. It was just, like, you know, I was, like, having fun, like, it was more, like, recreation for me. But it was also because I was learning. That's where, you know, kind of everything tied back to the [name omitted] meet-up, was that I realized that you're really going to learn how to code--and most program developers will tell you this--you really learn by actually doing it, right?

Andre was designing these opportunities for himself, but others described learning by doing in the context of their jobs.

At her job, Erin was continually asked to figure things out that she had not

been trained to do or had not learned prior to joining the company. Erin described learning so much by querying databases and asking questions of the engineers at the company, whom she had access to because of the small size of the startup. Erin noted that she liked to see things being applied, as noted earlier in the chunking section, and then she wanted to try applying things herself:

So I guess, for me, it's a combination of, like, maybe tutorials, like videos that walk you through things, because it's helpful to actually see that--like with Excel I watched a lot of YouTube videos--but then actually applying it. Sometimes you, like, learn this stuff in theory but you have no practical application, so it kind of stays in your head and you don't do much with it. So I did, like, the aspect of Tree House where you'd go through these videos and you'd actually try and apply it.

Erin's confidence grew, especially while learning programming. She remembered thinking computer programmers were geniuses before learning to code a bit herself. The experience of learning to code required her to learn by doing, trying various problems on sites like Tree House and Code Academy. The experience empowered her to think about her future, and remarkably got her over her internalized fear that she could not learn anything STEM related. Her parents were in the healthcare field, but Erin grew up thinking that she was not good at math or science. In fact, she even told a story about a middle school teacher telling her that she was no good at science, and that she internalized it until learning programming. While taking classes like biology and anatomy and physiology, she employed several of the tactics she learned through open learning and credited her open learning with her getting over her internalized fear of STEM material.

Unlike Erin, Tara described herself as always confident and independent, and joked about Professors who marveled at her ability to maintain high grades even

though her travel schedule as a varsity athlete kept her out of the classroom. Tara was always juggling multiple responsibilities and hated sitting in a classroom, so the intense travel schedule worked in her favor. Tara and I met through an open learning platform creator who knew her well, first as a student and then eventually as a teacher for their platform. She had found the platform after being in a job that required her to troubleshoot problems that the company was having while trying to build out mobile applications. At her job, she worked on her own startup and also shared a percentage of her time with a larger company that was giving her venture support and office space. Comically, Tara described the instructions she was getting from her supervisors in the shared space, which kicked off her open learning:

They were like, “Go figure out how to do that.” And so, my entire time there, just under a year, was like, “Okay. Go learn this. Okay. Go learn this. Okay. Go figure this out. We don’t care if it takes a while, but we don’t know how to do it. So, you might as well go figure it out.” And so, I picked up various things through that sense.

Tara kept learning on the job by essentially Googling different problems, looking for potential solutions in forums, and then trying them out herself. She dabbled in online open learning sites and offline experiences, even hosting a few in her workplace herself once gaining more expertise. Tara talked about troubleshooting a bug on her website in order to exemplify how she was learning:

It’s not necessarily that anyone’s sitting there teaching me anything as much as it is that I’m learning how to solve it by just trying different things.

“Trying different things” as a means to solve problems was common among participants, especially those who were starting their own ventures. These projects, problems, or experiences of “trying different things” gave participants examples of their learning in context, beyond small chunks. Savvy participants included these

projects and problems in an online portfolio of their learning and work, to demonstrate that they could self-start and solve problems. Whether applying for venture capital or a job at a big company, the ability to self-start signaled an individual who was ready to take ownership over their future.

4.3.2.3 Pulling it together: Feedback and the Commons

I just want to know people who know things. -Nicolas

Jamie's discussion of the self-empowerment of computer programmers had a peer-to-peer, social element to it as well. Far from the mythical image of the disheveled developer who sits in his basement in the dark working on code late into the night, Jamie was keen to point out how the world of development relied on peer feedback as much as it relied on a human-computer interaction (HCI) feedback model of test and retest, like Miller et al's (1960) TOTE method. The model of peer feedback was critical to how the platform worked where she was employed:

You can say, 'Hey, I want to learn this. I'm going to do some groundwork, I'm going to try to figure out how to lay down a foundation, and then I'm going to invite a bunch of other people to help me improve on the content I found, and then we're going to learn it together.' And then as the content evolves more people are going to come in and learn from it and improve it. Because that's what happens in the world of programming and web development, that's how it works.

Joan was very active on Jamie's platform; she regularly contributed to community discussions, started her own challenges, and took others as well. Joan, a white woman in her early 30s, worked at a college campus, a job she got after giving up on a career as a photographer after the recession. She was currently enrolled in a doctorate program at the campus and took classes part time as a way to advance in

her administrative career. Her passion was open learning though, and she kept an active web presence that detailed her open learning journey. Her hope was to bring more of what she was learning in the open world to her university, as an expert of what could be accomplished with these resources.

On the platform, Joan regularly created challenges and invited others to participate, even if she did not know much about the topic:

...but I always hope that it's okay that I don't always have the answer. I think it's fine. And I'll ask, 'if you find something post it here and let us know.' But I think that's a positive part of a platform like [name omitted] is that you don't necessarily have to have all the answers. And that people come on and you guys can learn together instead of it being 'I'm the instructor.' It's like, 'no, no, no, I just created the challenge. This is something I want to learn. And if you guys want to participate too, that's awesome.'

Joan was an early adopter and had been in the open learning space long before it became popular after the recession. As a photographer, she regularly queried forums for questions she had about her craft and her equipment. She noted a shift, however, since the platforms had become more popular:

And it's not just you. You kind of need that validation. Yeah. So, that's what I've seen over the past few years is all of this is now just starting to become more of a community focused effort. Where before it was kind of you and the content or you asking people questions rather than it being people working to build on each other's work.

Autodidactic communalism thrived in these new community focused efforts and Joan was doing her best to create opportunities for others to learn with her whenever she started something new.

Validation and feedback were extremely important to open learners. Jin felt responsible for creating an ethic of validation and support, even in open learning

environments like Coursera where it might be a bit harder to create that kind of community:

...I think there's more benefit both to me and the community, the more you engage with it through forums and stuff like that. So, like, for the Delivering Happiness [class], one of the assignments was 'Write in the discussion forum your values, or your personal values, or your company values,' and stuff like that. People spent a lot of time thinking about it, and writing, so I went in and wrote a nice comment, and clicked the 'Like,' button.

Jin believed strongly in peer learning and was one of my biggest online cheerleaders after we met. Like many lost and angst ridden graduate students, I started a personal blog that mixed personal anecdotes with sociological commentary, mainly as an exercise to fall in love with writing again. Jin commented on every single post, shared them with his network on Twitter, and I would occasionally get an email from him commenting more personally or just generally dropping in virtually to say hello. He was one of many who would invite me to participate in a learning experience with him, like forming a team for Startup Weekend. There was an understanding at events like Startup Weekend that feedback from peers was an instrumental piece of the learning process, and Jin collected people in a personal learning network (Kamenetz, 2010) that he would learn with and from through open learning.

Communalism recontextualized the entrepreneurialism of open learning in my sample, and that meant that participants learned to give and receive feedback, knowledge, connections, and resources. As Joan noted, open learning offered opportunities to build together, and not just answer each others' questions. Nicolas, a white man in his mid twenties, desired this connection and described actively seeking out people for his learning:

I think what I'm looking for more than anything else is I can't say that I'm, you know, how do you do X, Y, or Z, whatever, or marketing, or writing. It's, you know, I just want to know people who know things. So more often than not I'm looking for people. What can I contribute to them and what do I have to learn from them?

Nicolas' father had died at a time when he was struggling to find a full time job as a middle school teacher during the recession. He and his brother Marco went into business together, first as gym owners, then as founders of a digital content startup that would eventually become sponsored by a major healthcare company in their city. His statement "I just want to know people who know things" aptly captures a tension that was present in the open learning space, between entrepreneurialism and communalism. On one hand, the instrumentalism embedded in his statement hinted at knowing people who could open up opportunities for him, a classic form of social capital. It was hard, after spending time with Nicolas, to imagine him as a simply rational, calculative actor who intended to know people for his own gain. He was constantly meeting people who wanted to connect with him and genuinely wanted to help other people with their learning or enterprises.

Over a fire pit one night, Nicolas told me about a call he had with one of the most successful fitness entrepreneurs. The man was responsible for a national movement that made fitness videos and nutrition products and employed an army of direct sales personnel to bring those products to people via social media. Nicolas was impressed by the popularity of the program, but had several critiques about the inclusiveness of the man's program and how people were unlikely to stick to the program long term and achieve health. Nicolas recalled with disdain how the man scoffed at him and said, "Look man, I'm just making money." Making money was

necessary, especially for those participants like Nicolas whose learning was part of making a venture successful, but the profanity of it as a standalone virtue made people like Nicolas angry. He wanted to know people who knew things, so he could connect, be made better and make others better.

Self-empowerment was enhanced by a flexible sociality (Benkler, 2002; 2004) that allowed for peers and mentors to connect, contribute, and even critique each other. Admittedly, I got a bit overwhelmed by how earnestly and honestly people like Jin gave me feedback, and began to understand why people I talked to felt so empowered with their learning. For example, during participant observation, I attended an event at the top of one of the city's tallest buildings with Angela, a white woman in her late 20s. Angela invited me to attend the event after our interview in order to show me more of the spaces and people from which she was learning. It was a networking event for LGBT entrepreneurs, put on by a prestigious law firm in the city, and to be honest, I never imagined myself in a prestigious space like that. There were talks as well as a cocktail hour where older entrepreneurs approached the younger participants with sometimes-unsolicited advice. I introduced myself as "just a researcher," signaling that I did not quite belong there, but conceded that "with the job market the way it is, I might have to start looking elsewhere," employing the kind of self-deprecating humor common in my academic circles. I might as well have spilled my drink on the lush carpet; it was such a faux pas. One of the older women looked me square in the eye and said, "Honey, don't ever introduce yourself like that again. Tell me what you can do and what you do well, not what is not going well. This is the first time we are meeting." It was the kind of Shark Tank-

esque feedback I was not expecting because I had no project to pitch, but it was said with such genuine concern and “I’ve been there” wisdom that I started to understand why my participants felt empowered by the “let me help you with that” culture that came with an invitation to the moral high ground. I might not have had a project to pitch, but by not pitching myself I had clearly broken a social rule.

On another night, I went out for drinks at a swanky Tapas bar, with the teacher of the customer segmentation class. She was a successful entrepreneur who had one of her products featured on The Ellen Show and also taught occasionally at a local university. She talked to me like we had known each other for years, while extolling the virtues of entrepreneurship and telling me her life story. We were living one of those virtues, it seemed. Our easy chemistry came from being part of something that opened us to feedback, good or bad, and made us better. There was an assumption that we were interested and therefore interesting, as I will show in the next chapter. There was also a sense that we knew how to create our own opportunities, because we had learned how to do so. It was hard to argue with the kind of moral superiority I noticed in my participants at times, and tried to pretend I was not noticing in myself. In the discussion, I summarize these findings in order to return to a question posed earlier: what is masked when we pedagogize precarity?

4.4 BEHIND THE MASK OF PEDAGOGY: DISGUIISING A MORAL PANIC

A regulative moral commitment to communalism recontextualized entrepreneurial instruction in my sample. Participants learned-to-learn autodidactic communalism, the ability and capacity to self-teach by learning from others. A commitment to the commons remained as a “north star” for my participants, even while learning to become more flexible and autonomous. Learning-to-learn meant finding interests, chunking material into small pieces, applying those pieces to projects or problems, and seeking out others to give and receive feedback. This process of self-empowerment and collaboration was exciting and engaging to the people I talked to – and to me as well. Learning-to-learn stressed flexible, modular learning, where one can self teach by learning from others. The common practices that I have described as learning-to-learn, an answer to my empirical question of how learning happens now start to make sense in terms of precarious changes in the labor market. As a “new style” of learning, the pedagogy of precarity attempts to reconfigure a relationship between learning and labor different from the one embodied in credentialism. In credentialism, institutions confer social status and access to higher status jobs through the accumulation of academic qualifications (Collins, 1979). For participants in my sample, knowledge was accumulated not through academic qualifications but through autodidactic communalism. Individuals sanctified each other’s knowledge and, as I will show in the next chapter, conferred status and access to each other. Status and access were acquired by possessing the “something” of trainability: an ability and capacity to be taught within a precarious,

short-term, changing labor market. By learning-to-learn, participants in my sample began to acquire a capacity for autodidactic communalism. In the next chapter, I show how they learn-to-belong, by adopting a habitus of trainability, and thus learn to profit from “continuous pedagogic reformations and so cope with the new requirements of ‘work’ and ‘life’” (Bernstein, 2001: 365).

In this chapter, I showed how precarity became pedagogized as a response to the precariousness detailed in chapter 3. In the beginning of the chapter, I stated that the pedagogy of precarity is a pedagogic panic and noted how Bernstein (2001) warned that pedagogic panics would mask moral panics under conditions of global precarity. What is masked then, in this chapter, when precarity becomes pedagogized? Earlier, I stated that a pedagogic panic would be recognized by its focus on relevance and competence, its silencing of meaningfulness and the past, and its social emptiness (Bernstein, 2001). The coherent learning practices detailed in this chapter focus on relevance and competence. Learning-to-learn allows a person to structure their learning of instrumentally useful skills and values and demonstrate their competence. But does learning-to-learn silence meaningfulness and the past, and is it socially empty? Bernstein (2001) invokes Sennett’s (1998) work on flexible capitalism and the corrosion of moral character to ask where our long-term loyalties and mutual commitments lie when institutions break down or are redesigned. The pedagogy of precarity, I have argued, lacks a coherent institution and also seeks to challenge a relationship between two dominant institutions: learning and labor. Are there then no long-term loyalties and mutual commitments in the pedagogy of precarity? The first part I will not be able to

answer until chapter 6, where I analyze the follow-up interview data. The second, however, I can begin to answer from this chapter.

Mutual commitments were present in the pedagogy of precarity and they were exemplified in this chapter through autodidactic communalism. Still, those commitments depended upon a regulative discourse of communalism, which moralized participants' flexible sociality, sharing, and connection. Communalism and entrepreneurialism are not technologically determined – they are historical contingencies of this pedagogic panic and as such, they could change. The pedagogic panic I have described in this dissertation seeks to address the broken social contract between learning and labor embodied in credentialism. This pedagogic panic then might be masking a moral panic about how we take care of each other, how we distribute roles and occupational status, and how we create social order. The “openness” of open learning is then a response to the “closed-ness” of the current broken social contract. However, as I show in the next chapter, communalism becomes a tool of status maintenance and enhancement. The pedagogy of precarity is then less a prescription for openness and instead a blueprint for membership.

5.0 LEARNING-TO-BELONG: EMBODYING A HABITUS OF TRAINABILITY

5.1 NITA: HYPERVISIBILITY AND INVISIBILITY

“And my mom says, ‘Don’t be arrogant.’ And I’m, like, ‘I’m not being arrogant.’ Or you know what? Let me be arrogant, because that is what everybody else is doing.”

Nita, an Indian-American college student in her early 20s, started off our interview with a bold statement about her current feelings toward college: “I’m at a point in my education where I’m kind of done with it and dissatisfied...which is sad, because the whole point of being in college is exploring things and learning new things.” A human services major, Nita turned to open learning to fill two holes unmet by her coursework. The first, was that as a woman of color, she felt like her professors were only allowing surface level conversations in the classroom around race and gender issues, citing one instance in particular where a faculty member stated that she did not want to offend the freshmen. Online and with other students of color, Nita found the content that she thought was missing from her classroom:

And I feel like Tumblr has taught me a lot more...A lot of the social issues – well, more of that whole analysis aspect and really critical deep thinking, is Tumblr. It’s things like Feministing, it’s things like ColorLines...It’s the people I follow. Like my friends are also, you know, we think the same way, we have the same issues. A lot of us are minorities and we, like this was our reality

you know? Going through what we went, like racial politics, like, identity issues, the whole cultural issues of being, maybe coming from an immigrant family. And we constantly discuss these things, so when we're on these online platforms, particularly Tumblr, and we're all on Tumblr – we follow people that align with our interests who can provide it.

When it came to politics and identity issues, Nita felt like her online community and circle of like-minded friends helped her learn far more than her professors provided.

The other hole Nita used open learning to fill was on content that would help her run her startup, a subscription service for children's STEM education toys. She had joined the university's entrepreneurship club with a friend, they co-founded a company, and soon after won a startup challenge at the school. The win afforded them initial funding for their idea and support from mentors in the local entrepreneurship community. Still, there was much to learn and so Nita was utilizing classes and content she found online and offline to fill in the gaps. One site in particular, an offline open learning site called Wintrepreneur, helped her to make local connections with peers and instructors in the startup community. Unlike her online learning about politics and identity, this new community was primarily composed of white men and Nita's social justice consciousness was initially challenged during her first class. After taking in the demographics of the room, Nita separated judgment from observation, and settled in:

But hey, you've got to learn. Yes, the space was great, everyone was really attentive, the speaker – I don't remember his name – but he was great, he was making me think things about legal stuff I've never even thought about or even learned. But I really like how approachable, like, the instructors are. Because we just go up and you ask them questions, and that was cool. And then being able to just engage with other people in the class, as well, at the end. We ended up going to dinner with one of the dudes there and we were

just, like, “Oh,” like, “why did you come to this even?” Like, “What did you need to learn?”

Nita was pleasantly surprised with how open the space felt and was inspired by how engaged other participants were in the class.

When I asked her if Wintrepreneur felt different than her university experience, she responded, highlighting the differences in students’ interest and curiosity:

Yes, in the sense that what I saw from everyone is that everyone was actually interested in the topic. Because when you’re just going to class at a university you’re always going to have those kids who are on their laptops doing something completely unrelated, not being engaged. And again, it’s like one of those situations like, you’re there because you want to be there. But other than that, it was interactive, especially the last few I’ve been going to, because if you don’t get something and you want them to clarify you’re going to raise your hand. And then they give you problems to do, so it’s kind of collaborative. So you have to, like, kind of talk to the people around you. And it’s kind of, like, you’re-all-in-this-together kind of feel. And that’s kind of similar to school I guess.

Nita enjoyed the kind of learning and collaboration that she experienced at Wintrepreneur and in entrepreneurial learning spaces in general.

While the lack of diversity was initially a deterrent for Nita, it became a way for her to get out of her comfort zone and encourage others like her to do the same:

I think as a woman, and then being, like, a minority, as being an Indian woman and doing the whole startup thing, there’s not many of us...And then this whole startup experience is very white-male dominated, and then you try to seek out people who can help you out. And so, yes, it’s just, like, not many women, and not that many minorities. And I do feel tokenized at times, so I don’t want other to feel [bad], like, we’re here, we’re visible, we want to make sure that you have the right support as well.

Nita had to tightrope walk the line between openness and exclusion, but in doing so she reported becoming more confident because “yes, there are a lot of men right?”

She told a story about presenting her startup with other students to a team of older,

white male advisors who were walking around asking questions and giving advice. Nita observed how differently the advisors talked to her and the “white dudes” around her.

Nita despised older men who thought they understood her better than she did. In a conversation with one advisor, she told him that she was a “hands-on kind of learner” and the man responded, “You should’ve been an engineer. I bet you regret being a human services major.” Nita’s response held no punches:

And I’m like, “You would not tell a fat dude next door to me saying that kind of stuff. So who are you to say that to me?” And I was very, very angry. It was like, Just because I’m a woman doesn’t mean you can just treat me that way.

Her anger evolved into confidence, but Nita’s mother was concerned:

And I think that has definitely made me feel a lot more confident. And my mom says, “Don’t be arrogant.” And I’m like, “I’m not being arrogant. Or you know what? Let me be arrogant, because that is what everybody else is doing.”

Despite her vow to be arrogant, Nita was well aware of what was at stake. As a daughter of immigrants, she felt pressured to succeed and told me that she grew up hearing that her parents came to America so she could succeed. In order to do so, Nita knew she was going to have to make some big decisions soon about her future and the future of her startup. Entrepreneurship was enticing but risky, and she was savvy enough to look around and ask, “well, who’s not here?” despite all of the “empowering stories about learning entrepreneurship from people.” Her current mood was like many I talked to: “I’m finally in that position where I’m, like, ‘If I fail, I fail. At least I did it.’ ...it’s just part of it and you have to accept that, you have to accept that as part of life.”

Nita was ready to fail as an entrepreneur, but was reluctant to fail as a student, even if she did express a desire to drop out. Given her family's immigrant background, it would not have been acceptable for her to graduate from college and not have a job immediately. It would not have been ok to blame unemployment on the economy or her university. She expressed how irrelevant some of her coursework felt and how removed her peers and faculty were from communities of practice. This was not just an issue about how to talk about race or gender; it bled into other aspects of her education. The entrepreneurship club and the classes at Wintrepreneur exposed her to a different way of learning and a different way of being, where she might have been underrepresented but with the right amount of confidence or even arrogance she could be equal if not better than others. Nita felt like her role in college was to let others learn from her, as a woman of color, with very little reciprocated from peers with dominant identities. In open learning spaces, she was learning from others as much as they were learning from her, and race and gender were not always front and center as part of the learning. Nita's experiences exemplified a tension between hypervisibility in formal education and invisibility in open education. During our interview, she contemplated the tradeoffs between hypervisibility and invisibility, reasoning that at places like Wintrepreneur she could be recognized for the work she does, even if it meant navigating peoples' ignorance. Her curious, perseverant, and confident attitude oriented her towards others who had similar dispositions towards their learning, even if the majority of them were white men. Still, there was a question for Nita if the risk of entrepreneurship was worth it for her as a woman of color. The absence of others

like her made her question what hidden costs might be haunting the belongingness she experienced while learning entrepreneurialism.

5.2 FROM LEARNING-TO-LEARN TO LEARNING-TO-BELONG

In this chapter, I show how open learning was as much about becoming as it was about learning, or what I call learning-to-belong. In chapter 3, I stratified my sample between those who reported not experiencing precariousness as a result of the recession (ideological challengers) and those who reported experiencing either proximal or material precariousness as a result of the crisis and recession (precarious learners). In that chapter, I began to offer an explanation of how my participants converge as challengers to the status quo of learning and labor, represented by credentialism. Ideological challengers, while not directly affected by the crisis and recession, were already acquainted with precarity as a broader social structure for open learning. These individuals desired a different relationship between learning and labor, even if that relationship made them more precarious. Ideological challengers were mostly learning and working entrepreneurially in the technology field (developers, tech startup founders, edtech evangelists, etc) and they relied on open learning to stay current on skills in a fast paced field. Some were also educators and advocates for open learning as a way to change the relationship between learning and labor. Ideological challengers were committed to teaching themselves by learning from others (autodidactic communalism). Through

autodidactic communalism, they imagined an alternative to credentialism, where formal education confers status and access to social mobility and reproduction through the accumulation of qualifications.

In chapter 4, I showed how participants developed coherent learning practices to structure their learning in the absence of a coherent institution, what I call learning-to-learn. These practices are one part of the pedagogy of precarity and in this chapter I detail the second part, learning-to-belong. Through a pedagogic discourse that recontextualized entrepreneurialism within a moral commitment to communalism, participants learned autodidactic communalism. Autodidactic communalism afforded participants the opportunity to develop “trainability” or “the ability to profit from continuous pedagogic reformations and so cope with the new requirements of ‘work’ and ‘life’” (Bernstein, 2001: 365). Trainability “places emphasis upon ‘something’ the actor must possess in order for the actor to be appropriately formed and reformed according to technological, organizational, and market contingencies” (ibid). While Bernstein (1996; 2001) was correct that trainability could confer an ability to profit, he did little to theorize how one would develop “the capacity to differentiate and appreciate” opportunities to develop trainability, or in other words, learn-to-belong (Bourdieu, 1984a: 170). In this chapter, I use Bourdieusian theory in order to show how participants learned-to-belong. I argue that a habitus of trainability was developed by precarious learners in order to match the tastes of ideological challengers. While precarious learners embodied trainability slightly differently due to different status positions than ideological challengers, the effect was the same: pedagogized precarity took on the

character of a competitive struggle, where the outcomes were membership or exclusion.

5.2.1 Embodying a Habitus of Trainability

Standing (2011) argues that all members of the precariat, whether migrant worker or unemployed graduate student, have much to gain by recognizing the interests of each other. In his view, the precariat is a dangerous class because all members have a common struggle: rectifying unequal access and control to “economic security, time, quality space, knowledge, and financial capital” (Standing, 2011: 171). Standing (2011) predicts that the precariat will mobilize towards progressive ends. While hopeful, his jump from common struggle to progressive mobilization belies an under theorized part of his argument: how the precariat operates as a new social class. His argument is missing a theory of class relations and an account of how those with different positions within a precarious structure will associate. The distance between precarious learners and ideological challengers within the precarious social structure is small relative to the distance between migrant workers and unemployed graduate students, but even within that small distance I see evidence of a competitive struggle that could soon resemble a reproductive struggle.

In my study, ideological challengers imagined open learning as a way to challenge credentialism and were using it to hack institutions and conventional social norms. Open learning offered alternative ways of being, learning, working,

and interacting for ideological challengers. Ideological challengers wielded a host of revolutionary ideas about how people can learn, organize, innovate, and be citizens of the world without formal institutions and conventional social norms. They welcomed precarious learners into the open learning fray, through a moral commitment to communalism as a regulative pedagogic discourse, and not only helped them learn-to-learn but also learn-to-belong. They did this by embodying four traits or characteristics: curiosity, perseverance, confidence, and an orientation to openness. In this chapter, I argue that these four characteristics combined as forms of embodied cultural capital, or a habitus. Bourdieu (1986) argues that “cultural capital in the embodied state...presupposes a process of embodiment, incorporation” and takes time and cultivation to acquire, like “muscular physique or a suntan” (244). For Bourdieu (1986), embodied cultural capital is converted from external wealth and reproduces that wealth through embodiment, translating cultural capital into economic capital. In open learning, I will not go as far to say that there is no wealth or that it plays no role, but wealth is not the most valuable resource. Instead, one values reputation, and reputation is a product of learning-to-belong.

Reputation comes from time spent successfully applying the right mix of autonomous action and communalism, from being a connected independent learner and a socially capitalist laborer. Reputation, like wealth, is embodied by open learners and reproduced through the habitus of trainability, a structuring structure. Bourdieu (1984a) defines the habitus as “necessity internalized and converted into a disposition that generates meaningful practices and meaning given perceptions”

(170). In the pedagogy of precarity, open learners develop a taste for necessity, a habitus that can take free objectified resources like MOOCs and coding forums, and turn them into classifiable practices, with their own schemes of perception and appreciation (Bourdieu, 1984a). This taste for necessity is the habitus of trainability – a “something” that must be possessed to profit under precarious social conditions.

Sennett (2006), in his work *The Culture of the New Capitalism*, shows how a precarious social structure puts forth three challenges for individuals in order to prosper under “unstable, fragmentary social conditions”: time, talent, and surrender (3). Time is the challenge of managing “short term relationships, and oneself, while migrating from task to task, job to job, place to place” (ibid: 4). Talent is the challenge of developing new skills and abilities to keep up with the demands of the modern economy (ibid). Finally, there is the challenge of surrender, or “how to let go of the past” (ibid: 5). Surrender “resembles more the consumer, ever avid for new things, discarding old if perfectly serviceable goods, rather than the owner who jealously guards what he or she already possesses” (ibid: 5). Ideological challengers have risen to and embraced these challenges of precarity, applying their curiosity, perseverance, confidence, and orientation to openness as a dog whistle to anyone who can hear the call to membership. Precarious learners showed up to open learning with their own curiosity, perseverance, confidence, and orientation to openness, which all become valorized as part of the challenge to the status quo of credentialism. Table 3.1 details these relationships between traits, how they are experienced by my sample participants, modes of distinction, and modes of exclusion.

Table 3.1: Habitus of Trainability

Trait	Ideological Challengers	Precarious Learners	Distinction	Exclusion
Curiosity	Exploration of institutional alternatives	Self-exploration	A taste for usefulness	Idleness & structural explanations
Perseverance	Iterative learning	“Getting things done”	Freedom from possessiveness & taste for craftsmanship	Meritocracy as model of credentialism
Confidence	“Everything to gain”	“Nothing to lose”	A taste for risk	Those with something to lose
Orientation to Openness	Need for valorization	Need for validation & support	A taste for association	True autodidact

For ideological challengers, a habitus of trainability makes fragmentary time useful as an exploration of institutional alternatives, rejects the possessiveness of credentialism in favor of short-term iterative learning, embraces risk as productive, and orients towards openness as a source of valorization. For precarious learners, a habitus of trainability makes fragmentary time useful as a means of self-exploration, rejects the possessiveness of credentialism as a barrier to “getting things done,” embraces risk because there is nothing to lose, and orients towards openness as a source of validation and support.

Ideological challengers and precarious learners had different positions within the structure of conditions of existence (Bourdieu, 1984a), but they converged to develop a common mode of distinction and exclusion. A habitus of trainability for both groups became a mode of distinction, by translating curiosity into a taste for usefulness, perseverance into a taste for craftsmanship and freedom from possessiveness, confidence as a taste for risk, and an orientation to openness as a taste for association. These modes of distinction are a model for learning-to-belong, the second part of the pedagogy of precarity.

As stated in the last chapter, the pedagogy of precarity is thus less a prescription for openness, and instead a blueprint for membership. Membership is not necessarily a model for mobilization, and Standing's (2011) prediction of a progressive struggle is countered within my case, where a competitive struggle for membership excludes those who cannot conform to the habitus of trainability. If this competitive struggle is possible for groups within the precariat that are not too distant in their positions in the structure of conditions of existence (Bourdieu, 1984a), then it begs the question of what kind of struggle will ensue when precariat mobilization must transcend the distance between dominant and dominated.

In the following pages, I first detail narratives of two ideological challengers and analyze their habitus of trainability, and then detail the narratives of three precarious learners and analyze their habitus of trainability. In both sections, I show how members of the two groups embody curiosity, perseverance, confidence, and an orientation to openness. In order to best capture embodiment, I have chosen to present longer form narratives of participants instead of detailing the different

traits and modes of distinction across the entire sample in snippets. This choice was made in order to better display for the reader how learning-to-belong is embodied by participants as a process of cultivation (e.g. Bourdieu, 1986). Any participant within the two groups could have been chosen here to detail the process of embodiment, but I focus on the ones chosen because they have not yet been profiled extensively in previous chapters. After presenting my analysis of the habitus of trainability for ideological challengers and precarious learners, I will return to a question posed by Nita in the opening section: what hidden costs haunt learning to belong? Or, what does the habitus of trainability tell us about the openness of the pedagogy of precarity?

5.3 IDEOLOGICAL CHALLENGERS: INTERACTING BEYOND INSTITUTIONS

In my sample, those who had not experienced precarity understood open learning as a challenge to credentialism. In chapter 3, I labeled these individuals “ideological challengers” and noted that they are the closest cultural descendants of Turner’s (2006) New Communalists, the Californian Ideology (Barbrook and Cameron, 1995), as well as the early open education movement discussed in chapter 2. Their affinities toward open practices developed as consistent extensions of other counter-cultural aspects of their identities. Further, their focus on autodidactic communalism was theorized to not only benefit the individual learner, but to also create a new social contract between learning and labor.

In this section, I profile two ideological challengers in order to demonstrate how a habitus of trainability is embodied by those in my sample who did not experience precariousness as a result of the crisis and recession. Alexandra and Naomi were alike in that the financial crisis and recession had not affected them in a significant way and they did not narrate their open learning as part of a response to the crisis and recession. Alexandra's pre-existing very high levels of cultural, social, and economic capital made it such that her success was likely in almost any endeavor she tried. Her preference for open learning and openness in general matched a generic disposition of anti-institutionalism. Naomi also had a disdain for institutions and her background in alternative education as well as computer programming allowed her to effortlessly fit in among open learners. Alexandra and Naomi articulated that open learning required people to be curious, perseverant, confident, and open. They embodied trainability very naturally and it also remained consistent across other domains in their lives. As ideological challengers, their behavior and beliefs set the tone for others entering open learning spaces.

5.3.1 Alexandra: Challenging useless institutions

"But like I think the Academy needs a little bit of competition, you know?..." -Alexandra

Alexandra, a white woman in her late 20s, met me at my coworking office after connecting online through other interview participants. At the time, she was enrolled part time in an education Masters degree program at an Ivy League institution while working for a non-profit open learning site. Alexandra was

extremely passionate about open learning's potential to teach valuable skills while also teaching habits like perseverance, curiosity, and risk-taking. From what I could observe, Alexandra strove for consistency: her values and her practices were intimately linked in what amalgamated into a well-argued challenge to institutions. She was one of very few students enrolled part-time in her competitive degree program, a choice she defended for ideological reasons:

I'm part time in school. And one of the reasons I did that is because I don't believe that school should be like a timed [experience], like you shouldn't be sitting out. You should always be enmeshed in culture and actively involved in the production of culture. And so my school life and my private life, they're richer because they echo each other.

In a follow up interview, Alexandra recalled feeling like a "misfit in graduate school" because her work and school life were so intertwined. The culture of her program, she vented, was "useless":

The culture at [Ivy League school] was more people who were there full-time to achieve and, like, be the best at graduate school. And I thought that was really boring and false and, like, useless.

The achievement-oriented culture of her education program ran counter to what attracted her to open learning a few years prior. While working for an open textbook publisher, she met an "edgy" guy who had cofounded the open learning space where she was currently employed when we first spoke. He encouraged her to take a class on the site and she immediately felt like she had found her community:

Everybody had like really like an edgy sensibility about education. Like they were doing cutting edge research...everybody just seemed really to be doing very very interesting innovative things on [non profit learning site]. And so I'd be able to sort of take from it. Like I took user experience design. But then as I began to take from it, I wanted to give something back to it.

Alexandra took one of her interests and turned it into a class on the platform, where she felt like her role was to inspire curiosity while pushing people out of their comfort zone and into collaborative communities:

And what makes me passionate about [non profit learning site] is that I want to contribute to a more curious culture and I'm really passionate about being exposed to things that are outside my comfort zone and outside the comfort zones of other people. And open education's price point. And communities allow people to do that kind of horizontal sharing...like I never would have learned Javascript. It's totally out of my realm of typical interests or predictable interests. But because it was free and because the community was so awesome, I mean we were able to do that sort of conceptual shifting...And that is an important, powerful 21st century skill...that there are so many interesting, curious people out there who don't have enough to, they just go home and watch TV. What can we do with that spare energy? And how does free education make use of that energy?

Outside her comfort zone, Alexandra found that she could learn enough about coding to "converse with developers in a way that I wouldn't have that facility before". She recalled being less afraid of technical knowledge, which would help her to run her own company one day and not have to rely on "boys to do it".

Technology and open communities intersected for Alexandra and produced experiences that challenged the status quo of learning at her Ivy League institution:

And when I first joined [coworking office], when I first tried [open learning space], I was so terrified to share...now I'm like really comfortable with sharing even when something's wrong. Like I'm not afraid to look dumb. Because everybody does when they're learning. That is in stark contrast to being at [Ivy League institution] where like where everybody is a rock star at whatever they do, right out of the box. And the pressure there is to like be awesome instantaneously. It's like that's not learning...So the sharing is important to me. And being candid about what you don't know is important. And also actually as funny as it sounds, it's really sounds trite, but like I never would post comments or post to any lesson forums before I took part in [open learning space]. And now I can walk into any digital room or space feel like I have something to offer...

Learning to share was not only a critical piece of cultivating her ability to learn in open environments, but it also became part of her larger narrative of challenging institutions. Online, the community she created in her class produced “true learning” through horizontal sharing on the class discussion page:

The people in my [omitted] class are, I keep in contact with them. I think one of them is actually publishing my work next month. Like isn't that the way true learning is supposed to work? First pursue like a writing workshop and then we'll all help each other get better, get published.

The challenge to institutions went beyond open learning and her experience in graduate school. Alexandra pushed back on conventional norms that peer culture should revolve around marriage and family:

I would say that I'm in my late twenties and I'm at a point where a lot of people I know are like getting married. And sort of the question of our time is marriage and family and what that means for peer culture. And I'm like committed to not... So power, as you guys know, power works top down and power works bottom up. Like there are the checkboxes that we're asked to fill out. And the conversational question when people ask like, "Are you married? Do you plan to get married? Are you going to have kids? Now that gay marriage is legal, are you going to get married?" And I remain committed to not answering those questions or like rejecting the premise of that question.

Central to Alexandra's identity was the sense that institutions, if unchallenged, would reproduce power and power would always oppress people. Whether open learning, co-working, travelling internationally to collaborate on projects, or living in her communal housing space, Alexandra rejected institutions and their norms as social organizing principles. With a sense of one's interests and efficacy, achieved through curiosity, perseverance, and risk taking, she mused that a new kind of citizenship could emerge.

5.3.2 Naomi: Hacking new forms of social interactions and institutions

"I think that old assumptions are kind of broken. And I think technology is helping to make them broken." -Naomi

Naomi, a white woman in her early 30s, seemed unfazed when our Internet connection kept cutting out in the beginning of our interview. Far from being annoyed, she patiently attempted to reconnect with me before we decided to call each other on the phone, while muting the sound on our video connection that kept freezing. The hack worked and we continued the interview within the allotted time we had originally agreed upon. It was a fitting way to start a call with Naomi, a computer scientist PhD student whose interests revolved around "collaborative technologies and hacking the way that people interact with each other." She described her research as "creating new forms of social interactions and institutions":

I'm really interested in how society works and how people interact with each other. And then using technology to augment that study, understand that. It's quite broad. Starting with distributive systems and then thinking I like building these systems, but I don't want to measure them based on their networking effectiveness. I want to measure them based on how they affect the people that are using them and how they change where it's possible for us.

Naomi was enrolled full time in her PhD program, something she described as "depending on the day of the week, I'm either happy or frustrated with being in a more institutionalized setting." Despite her institutional affiliation, she even found a way to hack the traditional academic experience, by living on one coast and being enrolled on the other. She touted her remote collaboration with advisors as

evidence of her commitment to openness and collaboration, while finding academia to be conservative, traditional, and full of “a whole bunch of bullshit about competition and sharing that really infects attitudes about sharing ideas and information.”

Naomi’s philosophy about education, she mused, came from her experience growing up in an alternative public school – which later hindered her in a university setting:

I think it radicalized me a little bit about education in the sense that I really believe strongly in this sort of learner-centric learning because I grew up [with it] in education. But it really kind of came back to bite me in my undergraduate university education because I just really struggled with it. And then I found out that the program was completely unsympathetic, not unsympathetic, but just wasn’t designed for kind of saying, “Well sure, you can obviously customize the material or hack the approach.” So, I think that gave me a sort of strong interest in figuring out how we can take people like me who are really passionate about the material but may not have the same approach or the same background as others and just have better ways of teaching and learning and building community around that.

In addition, she described herself as the kind of student who is “not very good at being told what to do or being put in a structure that I didn’t come up with myself.”

Naomi did not have a specific story or experience that she could point to as what lead her into open learning or her work with the same non-profit learning space as Alexandra. Unlike Alexandra, she did not have one person who said “hey, try this” or entice her onto the platform. For Naomi, participation in open learning was a big part of who she was and her belonging in the open world was reflected in all of the aspects of her life that she revealed to me in the interview. She kept a research wiki that automatically updated to her server, which included a log of her research process. It was not a polished document, she said, but instead part of her

commitment to maintaining an open “documentation process” where anyone could see what she was doing at any given time as a researcher. Far from fearing someone stealing or critiquing her ideas, she welcomed the kind of critique that transparency could afford her and worried little about losing intellectual property. In fact, Naomi reasoned that by posting all of her code on GitHub, she actually stood more to gain in the open community than in the proprietary market:

In this economy, it’s like why would I post all my code on GitHub if in theory I could be paid for all that code? Yeah. First of all, I guess I’ve never really tried being a not open source programmer. So, I can’t fully claim that I have a good comparative assessment. But, from a reputation standpoint, I think I actually get tons of consulting offers and opportunities and job offers because people see my work on GitHub. So there’s a big reputation aspect to that. But there’s also just collaboration aspects. I learn so much from the codes that I find from other people on GitHub or just in the programming community. And I can collaborate with people easily. I can collaborate with my friends on my own projects easily. And then other people can use that and actually that is fine and rewarding.

Naomi’s closest friends, she stated, were from collaboration: “...it’s sort of like I have friendships through collaboration and collaboration through friendships. That’s sort of just how I work.” She talked about how like other “digital natives”, she could easily move between online and offline spaces and referenced the “ease of travel” as something that makes the overlap between online and offline more familiar to young people, because “we can hop on an airplane across the country and go hang out with people for a few days and collaborate on a project and come back.” For Naomi, open learning was just another part of her very open world, which she hoped to continue building by hacking into new forms of social institutions and social interaction.

5.3.3 Habitus of Trainability: Ideological challengers

In the above narratives, I have combined narratives of lifestyles, practices, and schemes of perception and appreciation for two individuals in my sample that have not experienced precariousness as a result of the crisis and recession (i.e. position in structure of conditions of existence) (see Bourdieu, 1984a: 171). In this section, I analyze these narratives as modes of distinction based on the four characteristics of curiosity, perseverance, confidence, and an orientation to openness. This analysis is based on the three challenges Sennett (2006) argues that a person must address in order to prosper under precarity: time, talent, and surrender or letting go of the past. For ideological challengers, a habitus of trainability makes fragmentary time useful, rejects the possessiveness of credentialism, embraces risk as productive, and orients towards openness as a source of valorization.

Curiosity: A Taste For Usefulness

Precarity, as a condition of existence, erodes long-term relationships (to work, peers, self, etc) and replaces them with fragmentary and short-term relationships. Alexandra insisted upon the usefulness of fragmentary time, so much so that she self-imposed a part-time education program in order to avoid “sitting out.” She valued curiosity and life outside her comfort zone, while endeavoring to have her school life and private life echo each other. That meant excusing herself from the rigid time structures of a full time education. The prospect of devoting a few years of her life to a program of study would have meant surrendering an anti-

institutional identity, which would have made it harder to have her school life and private life “echo each other.” Alexandra described the aspirations and behaviors of peers in her prestigious graduate program as “useless” and false because they devoted themselves to full-time study. In addition, her affinity to open learning was supported by a missionary question of usefulness: could free education make use of the energy of people who just go home and watch TV? While she stopped herself before defining what people she was referring to, the intention was clear: a taste for usefulness (and not idleness) was embedded in a valorization of curiosity.

Naomi did not explicitly state the usefulness of fragmentary time, but referenced her own curiosity in her desire to hack institutions and social conventions. By disrupting the inertia of institutions and social conventions through technology, Naomi intended to break “old assumptions.” Through her disruption, Naomi was fragmenting long-term modes and interrogating them for their usefulness, in the hopes of building something that changes what is possible. Alexandra and Naomi were both aligned with goals of disrupting the reproduction of power, but their curiosity could easily co-opt into a taste for usefulness, which would have the unintended effect of reproducing power.

Perseverance: Freedom from Possessiveness/A Taste for Craftsmanship

For ideological challengers, perseverance was a model for closure that allowed participants to forego “possibilities for the sake of concentrating on one thing” (Sennett, 2006: 196). That model was represented by a commitment to iterative learning or TOTE (chapter 4), where one chunk was learned at a time and presented

for feedback or one feature was designed and then evaluated. Perseverance was not a possessive long-commitment to a certain goal, but instead to a process. Sennett (2006) questions the short-termism of precarity and argues that it makes fragile the “self-as-process” (196). For ideological challengers, the self-as-process was not fragile and if anything was dismissed from the possessive binds of credentialism and other institutionalized conventions. Alexandra discussed her poetry class as a form of “true learning” and contrasted it with the achievement-focused culture of her graduate program. For her, iterative learning meant learning to share and seek feedback, or being “not afraid to look dumb.” In her graduate program, there was a pressure to “be awesome instantaneously,” which she described as “not learning.” By learning things outside her comfort zone, like JavaScript, Alexandra figured out how to not be a rock star “right out of the box” and instead had to commit herself to the process of learning. Through that process, she developed a disinterested interest, or, a taste for craftsmanship.

Sennett (2006) describes the spirit of craftsmanship as “getting something right, even though it may get you nothing” (195). Naomi also had a taste for craftsmanship that developed from a freedom from possessiveness. For her, it was most visible in her commitment to an open documentation process on her research wiki. Far from being scared that people might steal her work, Naomi welcomed the kind of feedback and critique that could come from posting all of her work online. The process of open documentation was arduous at times for her, and required a perseverance or commitment to open documentation as a moral project. However, through this project, she also stood to gain instrumentally, she reasoned, because

her reputation could be vetted and that brought her opportunities for consulting and collaboration. She contrasted this with the possessiveness of academia and its “bullshit about competition and sharing that really infects attitudes about sharing ideas and information.” Hacking was a form of craftsmanship for Naomi. Hacking is inherently iterative because the process of writing code requires one to try small chunks of features, test them, and either troubleshoot or move on to the next feature. This process of getting things right, a taste for craftsmanship, built the next characteristic: confidence, or a taste for risk.

Confidence: A Taste for Risk

An essential feature of precarity is that it shifts risks from institutions to individuals (Hacker, 2006). For ideological challengers, risk was embraced as a productive feature of open learning and other challenges to institutional conventions. Ideological challengers’ embrace of risk came from a confident attitude that they have everything to gain by transferring the functions of institutions to their own control. For Alexandra, that meant embodying a confidence that her open learning was superior to that of her Ivy League institution. Unlike her classmates, she was engaging in “true learning,” a clear, confident valorization of her deinstitutionalized learning. She had a strong distaste for the type of social order imposed by institutions, especially in her personal life, where she rejected the premises of questions about marriage and childrearing³³. The ability to reject the premises of these questions implies a confidence that she can only gain from a

³³ Bourdieu (1984a) notes how habitus is transposable across contexts, which Alexandra displays through her consistent disdain of institutions.

dismissal of oppressive institutionalized social orders. It also implies a valorization of risk shift, where the risk to conform to these social orders is greater than the risk to reject and live outside them. Naomi's commitment to an open documentation process also implies a taste for risk. She was confident that there was more to gain through complete transparency than through the closed, possessive features of the academy. Throughout her interview, her orientation towards openness was underscored by an unmistakable confidence in the abilities of technology-enabled open culture to liberate broken "old assumptions" about what is "possible for us." By "hacking the way that people interact with each other," Naomi proposed that there was more to gain outside the Iron Cage of bureaucratized institutional orders (Sennett, 2006; Weber, 1905).

Orientation to Openness: A Taste for Association

Standing (2011) argues that members of the precariat have much to gain by developing an interest in the enhanced rights of others within the precariat. Ideological challengers, for example, orient towards openness as a taste for association. Without association with others, openness contains little legitimacy and even less power to legitimate (e.g. Bourdieu, 1984a). This distinction is important for the status position of ideological challengers in open learning. They not only have to contend for their statuses as legitimate, but they also must valorize their practices as legitimating. In the next section, I will show how precarious learners fulfill this function through their need of validation and support. Ideological challengers orient towards openness as a source of valorization for their alternative,

deinstitutionalized projects. For Alexandra, that came through in her hosting of an open poetry class, where other people engaged in the collaborative practices of open learning in order to legitimate their learning. Naomi did this as well, commenting on how she has “friendships through collaboration and collaboration through friendships.” The recursive logic of her collaboration and friendships were naturalized as “that’s just sort of how I work,” implying that her taste for association was not a function of the productive relationships that valorized her practices. Such a functional logic for these relationships would make them profane, and therefore less distinct. In the discussion of this chapter, I return to this taste for association to consider how it has the potential to work against the progressive struggle that Standing (2011) predicts for the precariat. In the next section, I develop this analysis further through a characterization of precarious learners.

5.4 PRECARIOUS LEARNERS: LEARNING-TO-BELONG, OVERCOMING PRECARIETY

While the ideological challengers were creating and maintaining the extra-institutional space for open learning, precarious challengers were emerging with a more immediate need: to overcome or assuage their precarity. Marco, Nicolas, and Ben describe the challengers in my sample. They similarly critiqued the formal model of higher education, denouncing it as inflexible, useless, costly, and out of touch. They also critiqued the traditional model of work and leisure, opting instead for an entrepreneurial “lifestyle” that gave them access to interesting and successful

people as well as exciting, exclusive experiences. Where ideological challengers found mostly ideological reasons to denounce the status quo relationship between learning and labor (credentialism), precarious challengers felt like they had been snubbed by credentialism. Open learning for these individuals was about finding a different way to be, escaping a previous self who was not valuable and could not make value. By adopting a habitus of trainability, they learned-to-belong among ideological challengers by also embodying curiosity, perseverance, confidence, and an orientation to openness. However, the precarious positions from which they embodied these traits flavored them with slightly different schemes of perception and appreciation (Bourdieu, 1984a), even when undertaking similar learning practices (learning-to-learn). I explain this more after first presenting the cases of Marco and Nicolas, and then Ben.

5.4.1 Marco and Nicolas: Don't talk about it, be about it

"I have a degree in making shit happen." –Marco

"...I don't hang out for the sake of hanging out." –Nicolas

Brothers Marco and Nicolas, white men in their mid-20s, grew up in the suburbs of a post-industrial city and both left home after high school graduation. Nicolas, the handsome, affable older brother, attended a state college where he received his teaching degree before moving south with a long-term girlfriend for a full-time teaching job. Nicolas is smart, well liked, and greatly admired by whomever he encounters. Marco, the determined, scrappy younger brother with a learning

disability, enlisted as a reservist in the Marine Corps and spent a semester taking courses post-graduation at a local university in order to advance his rank. He talked about being in “special classes when I was younger” and how “no one really cared” that he got a 2.0 in high school because he played football:

They’re like, who cares, it doesn’t matter to him. So no one cared so I never really addressed it. And I knew it was a problem but I never said anything.

By Marco’s estimation, his inability to read well or learn like everyone else would not prevent him from honorably serving his country as “a crazy assassin,” so he enlisted.

It’s weird because if you would’ve talked to me in 2007 or 8, my goal was to kill people, literally. Like, I wanted to join the Marines and shoot everybody I could.

Joining the Marines, he thought, would fit his determined personality and desire to be the best at something. Once arriving at boot camp and meeting his peers, he was initially let down.

And the way I saw it was I wanted, I guess, something that no one else could offer me, but I guess it didn’t end up that way ‘cause when you see the Marines on the commercials it looks really cool; when you get there it’s not as...I expected, like, I’ve always wanted the best of the best. If I’m going to do it I want to do it right...But when I got to the Marines it was more of just everyday people kind of, it was like their last option almost.

During boot camp, Marco became motivated to qualify for an elite special operator position in order to satisfy his need to be the best. Life had other plans for him.

When Marco graduated from boot camp, his family revealed tragic news: his father was dying from brain cancer. The Marines granted him what he assumed to be a hardship discharge, a clause that would enable him to end his service contract in order to take care of his father. Marco moved home with Nicolas, who quit his

full-time teaching job to join the family in around the clock care. Once home, Marco worked nighttime security and then got a personal training job that turned into a management position. Nicolas was substitute teaching, but could not find full-time employment because the recession was in full swing. When their father passed two years later, Nicolas was still looking for full-time employment and Marco received orders for an immediate overseas deployment. Marco left his fitness management job and shipped off for further training; while at training, another medical hardship, this time his own, persuaded the Marines to break his contract once and for all. When he came home, his old job refused to hire him back, an illegal practice that he had little legal ability to fight. At that point, both brothers were unemployed, grieving, and desperate for a break. They had very little to lose.

As a stopgap measure, the brothers started traveling as in home personal trainers, tapping into local networks that remembered them as revered high school football players. When their client base became too big, Marco rented space in a local warehouse facility and informed Nicolas that they were starting a gym and that it would be opening in a few days, a story they both told while poking fun at Marco's impatience. Their gym would grow to 300 members and Marco and Nicolas had to learn everything that went into running a successful business. As Marco told it, he was more the Wizard of Oz behind the scenes, running the website, contacting companies, trade associations, and journalists to promote their work. His biggest job though was turning Nicolas into the superstar he thought he could be. Nicolas met with investors, business partners, clients, and industry professionals while Marco stayed up all night watching videos on how to promote their business online. They

both followed “hero” entrepreneurs, men like Gary Vaynerchuk and Pat Flynn, Nicolas regularly read business profiles from Harvard Business Review, and Marco spent time on Treehouse figuring out what made a great website. Marco’s learning disability made it difficult for him to read, but between podcasts like the Stanford Entrepreneur podcast, audiobooks, and online videos Marco figured out how to mimic some of the brothers’ heroes.

The first person that I got onto, who’s one of my heroes in life, his name’s Gary Vaynerchuk. I listened to his book called “Crush It,” like, living your own life, doing your own thing... [comment about another book] ...So those two books started me out. I just got them on YouTube. I searched “business books” and they came up. And then from there, just like I do all the time, almost every night, I spend all night looking at other people’s website –cause that’s what I do is the websites—and businesses, and listening to podcasts, and emailing them and saying “hey, what do you think?” or calling them and hopefully they will respond to me. And just kind of taking in as much knowledge from any person that will either talk to me or listen to me.

Not only did Marco learn how to make websites or promote their business, he was learning a disposition from the people he followed online or called up for advice.

Being an entrepreneur meant more than owning your own business. Being an entrepreneur was a break from a “normal” lifestyle:

Pretty much, I’m just someone who wants a certain lifestyle and I go after that lifestyle in whatever way that I can. It’s not more about, I’m not the type of person that wants to own a business or be a millionaire, it’s just I have a way of living and a certain way I want to do things. And being an “entrepreneur,” as people call it, let’s me get there...So my lifestyle is just doing what I feel is right every day and not having to report to anyone else, and also having, the funds, obviously, the money to not buy stuff and cool things. ‘Cause I want to live in a mini-house...I don’t want a big house or anything. It’s just having the money and the funds to travel and see cool things and do cool things versus having stuff and following the “normal” lifestyle.

Autonomy, control, and perseverance were critical pieces of Marco and Nicolas’ success, which they learned through content that gave them the decision making

power over how and for what purpose they would access it. In Marco's opinion, open content meant open access. Self-described as a guy who has a degree in "making shit happen," Marco saw no barriers to open learning, as long as people had the right attitude and the "want to do it":

I'm pretty vulgar. The way I talk to people is a little different from my Marine background. But what I would just say, "It's bull crap." That's a lie because anyone can do anything. I've seen people do so much stuff and overcome every obstacle, that nothing should hold you back. I'm no example of anything special with what I've done because I've seen people in the Marines do it. I've seen guys in the Marines go to school online, platoon leaders that had to be up at 4:00 am and couldn't go to bed until 3:00 am, but they'd spend an hour online going to school. I've met people like that that are just amazing.

Marco valorized persistent people who got stuff done, no matter the obstacle, and as a result, he and Nicolas both removed people from their lives that were not adding value or had the right attitude.

The lifestyle that I have has ruined a lot of relationships. I mean, honestly, I've lost a lot of relationships, both girlfriends and friends, that can't handle the fact that I want to work 24/7. I'd rather work than go to the movies or do something at this point and time in life. But it's really great in the area of, I would say, people like you. Like, we just meet people, and once it clicks it clicks. Like, I probably have a group of five people that all they want to do is talk about the cool stuff that we could do in life. –Marco

I have a small group of friends. I'm somebody who is, I wouldn't say, "guarded" necessarily, but I'm picky, because I feel like [there are] so much more meaningful things to be doing that, you know, I don't hang out for the sake of hanging out. Like, if I'm adding value to somebody else's life or if they're adding value to my life, like, I feel like that's a good mix. It's you know, finding someone with whom to waste time, like, not real big on that at the moment. –Nicolas

Nicolas desired the company of people who wanted to turn their interests into something "meaningful."

Throughout our interview, Nicolas stated several versions of the same motto: "I'm huge on, you know, don't tell me about it, be about it. Actions speak louder than

words.” To him, the former middle school teacher, traditional education was a big part of the problem, not just for kids like Marco but for all people. Nicolas had just finished his MA degree before our interview, but he felt like it was a waste compared to everything he was learning in open environments.

But see, and it almost, I don’t want to say it angers me, but it upsets me how much I feel like everything I did in school, or in terms of traditional school, I don’t know how much it’s helping me right now...So I think it’s kind of unfortunate that the skills that, at least, I’m finding that matter more, things that we’ve talked about like resilience and perseverance and confidence in what you’re doing, nobody’s taught me that. In the traditional school setting you’re told, you know, “sit there, wait your turn, mind your manners, don’t speak out of order,” you know?

In retrospect, Nicolas stated that he was glad that he could not find a full-time teaching job. Citing in-service days where teachers would sit around and put down other teachers, children, administrators, and parents, he felt like accountability was missing from his career:

It’s an environment that bummed me out more than anything else. And everybody is kind of trying to pass off what’s happening onto somebody else. So the kids don’t achieve so it’s the teacher’s fault, the teachers don’t achieve so it’s the principal’s fault, the principal’s not achieving so it’s the school board’s fault. And there’s no accountability, there’s no leadership, all the things that I feel like matter to me, they just didn’t matter to anyone else.

Nicolas believed strongly that education needed to change and thought open learning could be part of the change. More than anything though, both men wanted action; their daily practice of learning, applying, failing, and trying again brought them comfort, motivation, and reputations as hardworking entrepreneurs. Within a few years of opening their first business, the brothers would ditch the brick and mortar gym to become continuing education providers of fitness content, consultants, and Nicolas was breaking into the national scene as a top fitness

provider. Still, they introduced themselves as “nobody” or “just a regular guy”, because they did not think of themselves as heroes or some great success story. They were just people taking advantage of what was out there when they had nothing to lose.

5.4.2 Ben: Making life happen

I need to surround myself with new people – people who are already doing what I want to be doing and are actually way better than me at it and I’m going to learn from. -Ben

Ben, a white man in his mid-20s, graduated from college with a degree in business and found himself a bit lost after turning down a corporate job that did not suit him. At first, he had to deal with the immediate repercussions of turning down a decent job in 2008: he was unable to find a replacement as the recession began. Living at home with his mother in a major US city, he described how she supported his intuition to walk away from a good job offer, even if that meant that he would take a bit longer to get on his feet financially. His mom, a Hebrew teacher, asked him to help her find a way to make more money by tutoring in her free time. A quick Google search brought him to an online community that matched tutors with students in every subject. He set his mother up on the site, and then advertised himself as a computer skills teacher with specific expertise in Microsoft Excel. Ben did not have high expectations for the site, but figured that he had a lot to offer people who were not as tech savvy as he. He even volunteered to teach basic computer skills at a local nursing home, as a way to give back and as a way to learn

how to better teach his craft. Before long, he was the Excel guy, and he found himself turning tutoring opportunities into consulting offers:

Little did I know that [tutoring site] would be like the most amazing resource ever for me. I found the most amazing clients that way. One such client turned into a huge six month long project which was extraordinary, because I was able to kind of call the shots pretty much, in terms of how the project was run.

This project was the first time Ben felt like he was in control, which boosted his confidence as a previously unemployed college graduate.

Ben did not describe himself as a bad student growing up, but he singled out two problems he had in high school:

Basically, the biggest challenges I had were that I kind of learned in my own way, and that – first of all, if I wasn't interested in it, it was very difficult for me to stay focused and actually do it...also, the hardest part for me with conventional education was actually the social aspect in high school. I was still learning who I was and how to interact with people...Basically, I like to think of it as my emotional intelligence was very high at the time – I was like super in touch with my emotions. The problem was I would kind of not filter them and I would just kind of spit that out at people and be like, "Here are all my emotions." And they'd be like, "Whoa, dude, chill out." I had no social skills at all. So that was very difficult.

He admitted that he went to college "mainly for the social aspect" and that he tells people that with "no regrets":

Even my mom knows. She's like, "Didn't you learn anything business wise?" I'm like, "maybe one class taught me something that I actually use."

Post-graduation, these learning challenges turned into economic and social obstacles. Ben turned down the corporate job because it did not interest him. Now, living at home, he needed to make money and make friends. Both required that he learn what interested him and how to present himself to others.

Tutoring got Ben started in a positive direction, but once the six-month contract ended, he needed a next step:

It's safe before, now it's the unknown, so that's another reason why I was pushed into – let me explore very fast and let me find out what is out there – let me make these connections really quickly because I need to find more engagements that are actually going to make money for me.

Frustrated, Ben realized that the people in his life were part of what was holding him back:

...I had reached a point by the end of it where I was stagnating and I realized that there was only so far I can go. And I had read these books and taken these self-development audio books and other courses, where I knew that you could basically only go as far as your five closest friends. And the people that you surround yourself with, you will become. And I absolutely knew that, and I was so frustrated by the end, because I was like, "These are not people that I want to be around right now, because it's no longer where I want to go in my life."

Eventually, Ben found an entrepreneurial open learning site and started taking classes. Through these classes, he was able to learn valuable content but more importantly he was able to connect with successful people, the kind of people he wanted to become.

The best part of [open learning site] has been, from the beginning, was meeting these teachers who are experts in their fields who I wouldn't have had access to or had an in with before, but now I took their class, I learn a lot from them right off the bat, and I follow up with them and I say, "Hey can I take you out to coffee? I'd love to pick your brain and find out more about what it is that you do." And really, just show an interest – it doesn't take much. And the people who teach on [open learning site] love to have these kinds of chats. That's why I love doing these kinds of interviews, because I love sharing this stuff. So they were very receptive, and they led me to meet even more people who are just these really high achieving, high quality people in personal issues and professional issues, and it just kind of snowballed from there.

Before long, Ben was not only taking classes but also teaching his Excel courses on the site. Within a few months, he was promoted as a top teacher, which came with

perks like “extra support and extra coaching” but also “not necessarily so much the explicit stuff, but more like, you’re now regarded in a more important way and [they’ll] treat you accordingly.” His reputation online soared, as did he offline reputation. When I asked him if reputation was important as part of his teaching, he stated: “I think that’s the number one thing that people miss, and that when people get it right they succeed very, very highly.”

Ben felt like open learning was open to anyone and that it was a mindset that held people back:

I think that it is open to anyone. I think it’s just a mental block that people can have thinking, “Oh this isn’t for me” or “Oh, I’m not good enough to show up to this thing...I think that it is pretty much available, and if you think that because you don’t have what it takes, or – it’s all self-imposed, self-limiting beliefs. That’s all that would be what’s stopping people, I think. Because it’s very – the whole community is so geared towards being open and being welcoming and like, “Come join us.” This is a whole movement which we’re creating that makes education accessible, and affordable, and just a fun process. Let’s not have it be, “You sign up for this whole course in college and you pay this thousands of dollars and you may or may not get a job because of it.

Missing from the majority of the population, Ben reasoned, was a “kind of drive and dedication and like ‘I will not stop, I will not quit, I will not get sidetracked’ – this is what is going to happen and this will become real.” Ben had his heroes – Tony Robbins in particular – and every day Ben recited self-affirmations that he believed attracted the kind of prosperity and people that he now worked and socialized with regularly. He was now one of them and was “making life happen.”

5.4.3 Habitus of Trainability: Precarious learners

In this section, I analyze the narratives of the three precarious participants according to the same modes of distinction embodied by ideological challengers. These modes of distinction are based on the four characteristics of curiosity, perseverance, confidence, and an orientation to openness and respond to Sennett's (2006) three challenges under precarity: time, talent, and surrender or letting go of the past. Precarious learners were closer to these challenges, as they had reported direct material experiences with the crisis and recession (e.g. lost job, inability to find a job). Thus, their embodiment of the modes of distinction valorized by ideological challengers came from slightly different schemes of perception and appreciation (Bourdieu, 1984a). For precarious learners, a habitus of trainability makes fragmentary time useful as a means of self-exploration, rejects the possessiveness of credentialism as a barrier to "getting things done", embraces risk because there is nothing to lose, and orients towards openness as a source of validation and support. Ultimately, these differences were not enough to exclude precarious learners from the benefits of open learning. However, they did raise questions about the inclusiveness of open learning as practiced by those in my sample. I return to this question in the discussion of this chapter.

Curiosity: A Taste For Usefulness

Where ideological challengers insisted upon the usefulness of fragmentary time and acted upon that value through deliberate choices to fragment time,

precarious learners *had* to make their fragmentary time useful as a means of self-exploration. While not sitting at home watching TV, like the deprived cultural imaginaries in Alexandra's denouncement of idleness, precarious learners understood that fragmented time could be harnessed as a time to curiously explore their limits and potential. Marco and Nicolas both told stories of becoming useful beyond their state sanctioned and funded roles as a Marine and teacher, respectively. While Marco never had the chance to consider his usefulness as a Marine³⁴, he expressed disgust at the mediocrity of those he encountered at boot camp, people for whom the Marines were a "last option." Marco's open learning was a process of self-exploration and revaluation of his own usefulness. When given the opportunity to learn on his own terms and with means that accommodated his learning disability, he learned more about his capabilities and potential. Nicolas had a similar experience; when he could not find work as a teacher, he fell back on his athletic background to create a career in fitness with his brother. Both brothers utilized open learning as an exploration in their capabilities beyond their formalized training (or lack thereof, in Marco's case).

Ben was also making use of his fragmented time for self-exploration. What started as a way to help his mother earn extra income through teaching turned into an opportunity for him to learn about the value of skills he already possessed, like basic excel knowledge. Ben started to teach this skill on a learning platform for a low cost, while volunteering his time at a local nursing home to teach similar skills.

³⁴ In the British context, Sennett (2006) notes that non-commissioned officers continued to re-enlist because they felt useful serving the state, despite their ability to make more money as private contractors. While the US military context is very different, it is unclear if Marco would have seen his service as useful or not over time.

Before long, Ben was “the excel guy” and was making money as a freelance excel consultant. Sennett (2006) considers usefulness through voluntary participation, like in Putnam’s (2000) view of social capital, but argues that Putnam’s approach “risks reducing usefulness to a hobby” (189). Instead, he advocates for the state as a provider of usefulness through various public programs. Precarious open learners were not keen on usefulness as a public good, like Sennett (2006) advocated; instead, they developed a taste for usefulness as a way to marketize their newfound capabilities. Their curiosity was oriented towards asking, “what else is possible?³⁵” through their learning, which translated into a distaste for idleness much like the ideological challengers.

Perseverance: Freedom from Possessiveness/A Taste for Craftsmanship

Like ideological challengers, precarious learners developed a taste for craftsmanship. Their taste for craftsmanship came from a valorization of “getting things done,” an aphorism that speaks to the value of production as an experience worthy of credit, in contrast to the kind of possessiveness mythologized in credentialism (e.g. Kamens, 1977). Much like ideological challengers, precarious learners developed a commitment to the “self-as-process” (Sennett, 2006), for reasons exemplified in the previous section on usefulness. However, the “getting

³⁵ Ethnographic footnote: After formal participant observation in phase 1, I moved to a new city to accommodate my wife’s military career. I became a member at a coworking office while analyzing the data for phase 2 and found myself surrounded by people very similar to those in my study. The city itself had been ravaged by deindustrialization and the members of the coworking office were of lower status than most of the participants in my dissertation sample. At this office, “What else is possible?” became the unofficial slogan of the office after several new members started to find success through entrepreneurship. I found it worth noting that “what else is possible?” became the rallying cry often chanted in the office where I was analyzing data about a separate group of people who were also navigating a disposition of possibility.

things done” of precarious learners was not entirely a disinterested interest like the taste for craftsmanship was for ideological challengers. For example, take Nicolas’ statement that he has a “degree in getting shit done” and Marco’s insistence that people should not talk about it, but instead “be about it.” Both of these statements dismiss a “celebration of potential ability,” which Sennett (2006) defines as the role of meritocracy. I would argue they go further to dismiss credentialism as a model for meritocracy. Ben, for example, defined his perseverance in the statement that he was “making life happen” and insisted that people needed a no-quit attitude to get ahead. The perseverance and taste for craftsmanship of precarious learners was not a disinterested process like it was for ideological challengers, but it had the same effect of distancing from the necessity of the status quo of credentialism (e.g. Bourdieu, 1984a).

Confidence: A Taste for Risk

Ideological challengers embraced risk as productive because they valorized their own control over social order rather than institutional control. Their embrace of risk was a revolt from credentialism and they imagined themselves with everything to gain, whereas precarious learners embraced risk because they had nothing to lose. The difference is subtle here, and again references the differential immediate experiences with precarity in my sample. Where ideological challengers could reject institutional premises and symbolically produce their gains, precarious learners had been rejected and therefore had nothing left to lose. This “nothing to lose” position also came with a sense of confidence (or perhaps a desperation

disguised as confidence). Risk became a tolerated transaction cost of the pedagogy of precarity for precarious learners, because credentialism offered little buffer to that risk even when they did believe in it. Where ideological challengers were confident that there was more to gain outside credentialism, precarious learners had to gain confidence to go outside credentialism. For Ben, this was evident in his statement that open learning was open to anyone, unless you had a mental block that you were not good enough. For Marco, he referenced platoon leaders that were foregoing sleep to get things done, and argued that people could overcome every obstacle. Confidence and the taste for risk come from a very different place for ideological challengers and precarious learners, but the effect is the same: those who have something to lose and are unwilling to embrace risk will be excluded.

Orientation to Openness: A Taste for Association

Precarious learners were oriented to openness out of a need for validation and support of their learning in a deinstitutionalized and therefore potentially illegitimate way. Where ideological challengers sought valorization in their association with others, precarious learners sought validation. Again, the difference is subtle but important. Precarious learners sought legitimacy from people who had been there. For Marco and Nicolas, that legitimacy came from entrepreneurial stars that made time to support them, answer their questions, and offer feedback. For Ben, that legitimacy came from the “high quality people” he surrounded himself with and his eventual endorsement as a master teacher on one platform, where he was “regarded in a more important way” and bettered his reputation. In return

though, precarious learners were also valorizing the legitimating practices of ideological challengers. This subtle, recursive system of mutual support created a taste for association among the open learners in my sample. However, this taste for association and orientation towards openness did not guarantee a progressively mobilized precariat. Instead, it offered membership for those who effectively learned-to-belong, or adopted the habitus of trainability. While precarious learners told an optimistic story about inclusion and learning-to-belong, their embodiment of curiosity, perseverance, confidence, and openness tells a story about exclusion as well, which I delve into further in the discussion.

5.5 DISCUSSION: LEARNING-TO-BELONG AND DISTINCTION

In this chapter, I showed how precarious learners and ideological challengers differently embodied a habitus of trainability, but ultimately had the same effect: learning-to-belong, as a mode of distinction. In a co-authored paper with the larger Connected Economy Research team, I analyzed a subset of my data to show how conformity to group norms supported a “paradox of openness and distinction” within the sharing economy (Schor et al, 2016). In that paper, Zelizer’s relational economic sociology was augmented with Bourdieusian theory in order to show how sites and practices with goals of openness and equity can actually produce closed and inequitable outcomes. This chapter dives deeper into my data to show how the pedagogy of precarity, while dependent upon open learning, was more a blueprint

for membership than a prescription for openness. Unlike the classical Bourdieusian conversion between cultural, social, and economic capital that reproduces social position in credentialism, opportunity structures in the pedagogy of precarity are open to anyone who can adopt the social norms of the space. It was less important where one went to school (if at all), where one grew up, or what profession their parents had. Those legitimate forms of capital within credentialism were denigrated in open learning, and in their place emerged new legitimated forms of capital. At the heart of those new forms was an embodiment of trainability, or learning-to-belong, which offered participants a form of membership in a status group. Membership was dependent upon precarious learners developing a habitus of trainability to match the habitus of trainability of ideological challengers. In doing so, the open learners in my sample all embodied a taste for usefulness, a taste for craftsmanship and freedom from possessiveness, a taste for risk, and a taste for association. While this habitus “opened” open learning for precarious learners as a potential strategy to buffer precarity, it also “closed” down non-conformers whose practices were unrecognizable to the habitus of trainability.

Sociologists of education have long been attentive to ways that preexisting status and racial identities (e.g. Lareau, 2003; Valenzuela, 1999) produce unequal educational experiences for students. In this study, those status and racial identities are less determinant, though as noted earlier I do not have much data on non-white open learners. However, out of the six people of color in this study, only Nita discussed racial identity, even after being probed about inequality in open learning spaces. Nita tells the story of how her gender and racial identity are at odds with an

overwhelming white male presence in the entrepreneurial open learning spaces. Her experience implores us to ask just how “open” open learning is if she repeatedly had to question whether potential mentors were treating her the same as the men. At the same time though, she found that the classes she took were extremely welcoming, despite often being the only woman or person of color there. Beyond racial identity, pre-existing class or status identities had little to do with open learners’ successes. For example, Marco, a man not destined for college, marveled at how he was able to access content from Stanford, an elite school that he would have no way of accessing if not for open learning. Being able to talk to successful entrepreneurs for free and their genuine desire to connect to people like him made him feel valuable, successful, and smart. Further, some open learners remarked how open learning helped them get beyond their internalized gender stereotypes. Erin, who was not discussed in this chapter, remarked how open learning helped her get over a trope that she had internalized in middle school: that girls were no good at math and science.

The data I gathered gives me little room to do much but speculate about whether open learning is “open” or not, based on one’s non-dominant identities. What I can say for certain though is that open learning required a certain habitus of trainability in order to be successful beyond acquiring content. In last chapter, I concluded with a question: what is masked when precarity becomes pedagogized? Bernstein (2001) argued that pedagogic panics often mask moral panics, and I can think of no greater moral panic than an economic order that continues to engulf people into a precarious social structure. But what *is* masked when precarity

becomes pedagogized? In this chapter, I respond: a competitive, albeit mutual struggle for status masks a potential moment for recognition of the precariat's common interests, struggles, and potential future. Open learners do learn to voluntarily associate, but only with those who have also effectively learned-to-belong by embodying a habitus of trainability. In the next and final empirical chapter, I evaluate the pedagogy of precarity as a longer-term project for the participants in this study.

6.0 EVALUATING THE PEDAGOGY OF PRECARITY: ANALYZING LONGER TERM SUCCESS

6.1 BRITTANY: GROWTH, BURN OUT, AND A STRATEGIC FUTURE

So I think where at first risk was the right word, strategy's now a right word. -Brittany

In this dissertation, I have made a case for how the rise of precarity in the labor market has lead to a new style of learning that I call the pedagogy of precarity. The pedagogy of precarity is a reflection of larger social transformations and in chapter 3 I showed how participants' experiences with the financial crisis of 2008 and subsequent recession contextualized how participants were open learning. In June of 2015, I followed up with 18 of the original 34 participants and tracked down public digital footprints of 15 of the remaining 16 who I did not interview. My intent was to assess the pedagogy of precarity in the longer-term; I wanted to know if it "worked" and if so, what it meant for it to work. When I talked to Brittany, a white woman now in her mid-20s, it was clear that the pedagogy of precarity worked for her. When we first spoke in August of 2013, Brittany was mostly running her nonprofit startup on passion and a skeleton staff. Brittany struggled to find summer employment during the recession and knew that the lack of resume-worthy summer jobs would affect her on the labor market when she graduated. Instead of searching

for a more traditional career, Brittany turned a student club she had founded into a non-profit after graduation.

At first, Brittany's interest in the organization's success was as much personal as it was professional, because she lives with the health condition that affects the population her nonprofit serves. When we first spoke, her organization was doing well for its early stages, but Brittany, as founder and CEO, was still very much teaching herself to run the organization's operations. By July of 2015, when I re-interviewed Brittany, she sounded like she had spent the last two years obtaining an MBA while growing her nonprofit:

So I had to learn all the operations. And so I taught myself bookkeeping and QuickBooks. I, you know, had to figure out employee benefits, and HR, and payroll, and really just all the operational stuff, insurance. So it was just an enormous learning curve related to just everything that makes everything work in a business, in a non-profit.

Beyond the hard skills of running a business, Brittany was also trying to master leadership; something that she admitted did not come to her as easily. Regardless of how she felt about her own leadership skills, Brittany's leadership had benefited her organization since we last spoke. Her company had moved into a more prestigious shared office space, where other ambitious entrepreneurs would surround her team. Her staff had grown and she was in the process of hiring additional staff. She even reported a 65% increase in revenue, which she had achieved through diversifying her revenue sources and hiring a development professional to assist with fundraising. Because of their success, she also had to master philanthropic tax codes, build a more user friendly website that could host additional traffic, and streamline their strategic planning process.

Brittany was used to relying on her network for support with business questions, like how to account for a corporate membership model in their bookkeeping. In fact, Brittany mused that over the last two years she became much better at asking questions of her network of experts. At first, Brittany was “leaning on mentorship, leaning on people that were willing to talk to me.” As time went on though, Brittany started to attend more trainings that would help her understand her business better, and found that she was able to approach experts more skillfully. She would do as much research as possible ahead of time, preparing her questions in a way that would allow her networks to support in a time-efficient way. Brittany recognized that people were always willing to help, but they were especially helpful when they felt like they could contribute something valuable.

Unfortunately, time spent researching and understanding her questions meant longer work days, and eventually she found herself consistently working over 12 hour days. Inevitably, Brittany burned out.

...I didn't ever expect to get burned out. And a lot of people would talk about burnout and to protect yourself against burnout, and I never really thought it really applied. And I definitely got incredibly, incredibly burned out around the end of last year. So navigating that was really tough, but coming back from that and learning how to create a little bit more balance, bring things back into my life that are really important to me, and to help me to mentally deal with everything has been really huge.

Brittany rekindled friendships she was neglecting, got a dog with her partner, and made time for exercise and hobbies.

Burning out made Brittany step back and reevaluate not only what was good for her, but also what was good for her company. When she was personally struggling, several other organizations in her sector that dealt with the same health

condition had either gone out of business completely or were experiencing a change of leadership. Like her organization, they were also founded upon a passion for supporting a medically vulnerable group. Many of their leaders, like Brittany, also suffered from the same condition. Watching her peer organizations go through such volatile changes caught her attention.

I think it was honestly, like hitting rock-bottom in terms of just, like, working myself into such a level of burnout that I was, like, semi-comatose...But then I'd seen a good friend who is a founder and CEO of his organization who went under, you know, get burned out to that extent, and he walked away and everything went away. And so, that was so, so stressful at that time, and so much in the back of my mind. And [company name] wouldn't survive if I walked away. And it was too needed and has done too much too have that happen.

It was at that point that Brittany turned her organization's focus to "sustainability, self-learning, you know, self-evaluation". Brittany was now focused on building systems and strategies for her business, rationalizing work flows so that her non-profit relied less on her leadership. In many ways, Brittany was rebuilding an iron cage around work she initially created in order to avoid precarious structures.

When I asked Brittany if her decision to start an organization full time right out of college felt risky, she laughed and replied, "Every second of it." I then followed up and asked her why not go back to school or get a job where she was not as responsible for the company's survival? "I'm learning so much from what I'm doing...and I believe in what I'm doing" she responded. Many people had asked her the same question, and while she was not sure if she would always feel so confident, she felt like she had learned so much more from her experience than she could in an advanced degree program. Brittany looked to older CEOs and founders for cues on what was next for her. Getting married and having children were definitely longer

term goals, and she knew that there was a lot she would have to do to get her company ready for her to step back when the time came. A female mentor with children was teaching her, from personal experience, how to lead her company so she could step back. No degree program could teach her these important lessons, and she was learning that social support is the number one ingredient to success: “So it definitely doesn’t occur in a vacuum, and for a long time, you know, I definitely thought that it sort of did.”

While the pedagogy of precarity worked for Brittany, her success brings up questions about what it means for the pedagogy of precarity to work, and what kind of unintended consequences emerge from its success. In this chapter, I evaluate the longer-term success of the pedagogy of precarity. In the next section, I revisit chapters 3, 4, and 5 and respond to their main themes through follow-up data. Then, in the third section, I detail the limits and challenges of the pedagogy of precarity that were identified in follow-up interviews. Finally, I conclude this chapter with a discussion of the potential for the pedagogy of precarity beyond my sample, which I attend to more thoroughly in the conclusion of this dissertation.

6.2 ANALYZING LONGER TERM SUCCESS

In this chapter, I assess whether or not the pedagogy of precarity worked in the longer term for participants as a viable learning mode for the precarious labor market. In the first phase of this study, participants were extremely optimistic, even if they were exhausted from sifting through endless content and tackling project after project.

Exhaustion was worn like a badge of honor. There was something empowering or even addicting about discovering their efficacy through open learning, and in the first phase of interviews, no one really thought that their optimism would wane. Their optimism was borderline utopianism for those who really believed that open learning could challenge credentialism and liberation for those who felt like their education had failed them. If I were to have concluded my study after the first round of participant observation and interviews, I would have walked away with the conclusion that open learning, at the very least, transformed precarious individuals into empowered individuals. But what about in the longer term; was open learning really transforming these individuals' precarious lives and teaching them how to labor in a precarious labor market? Was open learning just a tonic, an opiate for mass precarity, and would its effects wear off when and if the economy got better? In this chapter, I first explore changes in the labor market and changes in sample participants' experiences with precarity. Then, I ask if and how learning-to-learn operated in the longer-term for participants and finally if and how learning-to-belong operated in the longer-term for participants. These sections attempt to answer respectively how the pedagogy of precarity worked to transform precarity for participants, how it worked as a method of learning, and how it worked as a model for belonging and a challenge to credentialism.

6.2.1 Changing Historical Contingencies and Experiences with Precarity

In June of 2015, I was able to follow up with 18 of the original 34 participants, though I had not originally planned for these interviews and had not made

participants aware in their first interview that I would be reaching out again³⁶.

Follow up interviews took place between one and a half and three years from phase one interviews. By June of 2015, the national unemployment rate had dropped from around 10% in the recession era to 5.3% and would continue to drop throughout 2015 and 2016 (Bureau of Labor Statistics, 2017). Also, the Affordable Care Act (ACA), which became law in 2010, has been credited with alleviating “entrepreneurship lock”, a term used to describe the barrier would-be entrepreneurs experience when they want to leave a job with health insurance in order to start their venture (Fairlie et al, 2011). The ACA made it possible for people to leave their jobs, obtain affordable health insurance, and start their risky ventures (Ydstie, 2014). The labor market had drastically improved and entrepreneurship was less risky, therefore I expected to find that participants would describe being much better off economically than when we first spoke.

The pedagogy of precarity was reported as largely successful for participants. First, they were able to learn-to-learn and learn-to-belong in a time of high precarity and all follow-up participants reported that their learning contributed to future success in 2015 in varying degrees. Of the 18 that I re-interviewed in phase two, 13 respondents had reported experiencing some form of precariousness in phase one. Seven of the follow up participants were proximally precarious in phase one, six were material precarious, and 5 came from the category of ideological challengers who had not experienced precarity as a result of the crisis and recession. This breakdown was similar to phase one of study; where 76% of respondents had

³⁶ See methods section in chapter 2 for a more complete description of follow up methodology.

experienced some form of precariousness in phase one, 72% of those interviewed in phase two had experienced some form of precariousness in phase one. Therefore, I did not oversample in any one group in phase two. From the 18 follow up respondents, 7 were self-employed or working at a small startup and 11 were working in traditional jobs. Those who were working in traditional jobs reported that learning entrepreneurialism was particularly beneficial to them, as it made them stand out as self-starters and self-aware employees in the workplace.

I was unable to follow up with the additional 16 participants formally, but I remain connected to most of them through social media and in-person relationships. Through public digital footprints³⁷ or knowledge relayed to me from participants informally, I was able to roughly determine that eight additional participants were self employed, three were working in small startups, one had gone onto graduate school, three were working in traditional jobs, and one person had no digital public trace of current employment. The participant who had gone to graduate school, a community college graduate and avid open learner, was also self-employed as a freelancer on the side, as was one of the individuals who had a traditional job. I am confident saying that at least 12 of these individuals had found employment that was related to what they were learning in the open world. Mike's LinkedIn profile, for example, shows that he has been working as a user experience (UX) researcher for a few years. When we were first in contact, he immediately emailed me after attending his first UX class at Wintrepreneur and sent me his notes from the class, describing it as something that really interested him. He wanted to find ways to use

³⁷ LinkedIn accounts, personal webpages, public Facebook data, university and employer webpages, etc.

his new knowledge at his job, but at the time was not quite sure how. According to his online profile, he has left the company where he was working when we first met and has been working in the UX field now for a few years, without a formal degree in user experience design.

While the pedagogy of precarity has “worked” for participants as a way to find employment, many participants in my original sample reported or showed digital footprints of self-employment or working at a small startup. Twenty out of 34 participants were either self-employed, working at a small startup, or were self-employed in addition to traditional employment or higher education. The “entrepreneurial vagueness” discussed in chapter 3 as a way to buffer the space between status aspirations and objective chances turned into actual entrepreneurship or employment in a small company for over half of my participants. While participants in chapter 3 saw entrepreneurialism as a strategy for gaining more autonomy and control over their learning and labor, entrepreneurship itself is an extremely risky career path. Thus, it is possible that the pedagogy of precarity “worked” because participants embraced precarity and opened themselves to the possibility of more precarity in pursuit of their entrepreneurial ambitions. In the next section, I ask how and if learning-to-learn operated in the longer term in order to assess the pedagogy of precarity as a method of learning.

6.2.2 Learning-to-learn in the Longer Term

Oh absolutely. I think pretty much all of those classes were necessary for me to have gotten here today. – Mark, Founder and CEO of a startup seed funded by Y Combinator, college dropout

In chapter 4, I showed how participants learned-to-learn through a pedagogic discourse of trainability that transmitted skills and values. They did not just learn content, like learning python on CodeAcademy or the principles of finance on Coursera. They engaged in meta-learning, learning *about* learning in addition to specific skill building. That is, they had to familiarize themselves with a style of learning that would enable them to consume content, often times without the aid of an instructor, strict schedule, or curriculum, and without the monetary incentive of having invested thousands of dollars into a learning experience. In chapter 4, I argued that an instructive discourse of entrepreneurialism was recontextualized with a regulative discourse of communalism. The instructive discourse was entrepreneurial in that participants were learning entrepreneurial skills and were learning them in entrepreneurial ways, specifically in manners that mimicked lean software development. The regulative discourse was characterized by sharing and openness, which embedded a moral order and appropriate social relations. Participants learned autodidactic communalism, the process of self-teaching by learning from others. Autodidactic communalism was one part of learning trainability, which Bernstein (1996; 2001) referred to as a way to profit from constant pedagogic reformations in changing work requirements.

To learn-to-learn, participants first started with interest driven learning. Interest driven learning required them to suspend a previous norm they internalized about learning: that it could not be interesting to them, or that following their interests was frivolous. Interest driven learning engaged them, which helped them to navigate seemingly endless content. It also empowered them, because time spent learning something interesting felt like time well spent. It also helped them build expertise, which fed back into the empowerment and engagement. In the longer term, this meant that learners evolved from “I’m a person who is interested in UX and how people navigate websites” to “I’m a UX researcher who is paid by my company to understand how people navigate websites, so we can design more user friendly websites”, like Mike did.

Interest driven learning also helped them to figure out what else needed to be learned in order to sustain their interest and build it into expertise. Mark, for example, was an aviation enthusiast. Originally an engineering major and ROTC candidate destined for the Air Force, Mark left ROTC and later his university to work full time on his aviation based startup. After winning a few university based funding challenges, Mark applied for and was accepted to Y Combinator, the powerful Silicon Valley startup incubator that awards its selective class of participants \$120,000 in seed funding. Mark dropped out of college and joined a prestigious group of startups, including AirBnB and Dropbox, who were originally funded by Y Combinator. Mark moved to Silicon Valley and was spending his days being mentored by some of the best in the industry and was learning from others’ successes and failures over community dinners and office hours.

When I followed up with Mark, I almost could not believe it – and he told the story like it was not about him but about someone he had read about in Fast Company magazine. It's rare for a startup to receive seed funding (let alone get accepted to the world's best incubator), though he was not the only interview participant to do it. Marco and Nico's company was also accepted to an incubator and they came out of it partnering with the region's largest hospital and healthcare system. The majority of startups fail long before they ever get off the ground, mostly because founders cannot single out a minimum viable product (MVP) and provide proof of process that the product is valuable and can sell. Learning to create an MVP and provide proof of process, a lean, entrepreneurial process, was best learned, as Mark noted, through a learning process that mirrored the entrepreneurial process:

I think pretty much all of those classes were necessary for me to have gotten here today. They just taught me so much about start-ups. When I came in, I had no idea what I was doing...I'd never done, like, a real startup, and just learning the way that a real startup operates. Learning how they test through and iterate upon things. And then learning, like, the very specific stuff. Learning how to design a website, how to have a good user flow, how to do email outreach campaigns. A lot of these small, but very practical things that help us gain the initial traction that we needed to get into the market. So all those things certainly added up.

Learning the specific stuff, testing through and iterating upon things, learning to do outreach and connect outside was essential for startups, but it was also how participants learned. They took an initial interest, they chunked out what needed to be learned, and they learned by doing, creating projects that would help them try, fail, iterate, and try again. Then they reached out. They sought out and gave feedback to others.

For Mark, these skills enabled him to learn what was necessary to start his company. Unfortunately for Mark, the FAA decided that his company was in violation of the law and he had to, at least for now, walk away from the company. Fortunately for him though, other companies that were still growing and needed to hire talent surrounded him. Mark immediately found a position as a COO of a peer startup at Y Combinator. This did not mean that he was done learning. Far from it, Mark had to employ all the skills he learned to start his original company to help someone else grow theirs – and that often meant taking on tasks in which he had zero experience:

But there were several cases where I did need to learn things. So for example, when we wanted to build our sales team, and [founder] was busy handling other parts of the business, so he wanted me to kind of put together a formalized way of doing sales. As an engineer, I certainly had no experience in that. So I asked around about big “go to” books, the bible of sales. And I just started reading those, and it just gave the perspective I needed on how it should run. And so I’d, like, read a chapter on the train ride into San Francisco, and then that day I’d, like, start implementing a lot of those techniques and that structure. And just keep on doing that every day. Just moving from one book to the next. Looking at things online.

Mark was still learning like he learned to learn for his start up. By reading a chapter of a book and immediately implementing it, “doing that everyday”, he was employing TOTE: Test, Operate, Test, Exit (Miller et al, 1960).

Mark had learned how to pick up new skills very quickly, and he was not the only person who felt like that was something that had benefited him from open learning in the longer term. Brian, for example, was working a well-paid job as an engineer in a traditional firm. He did not particularly enjoy his job, but he attributed part of his success and ability to maintain such a high paying job to his ability to pick things up quickly, which he learned by trying to teach himself to program:

I taught myself programming for a bit and then I got to a point where I can't really progress with that without really devoting full time to that or not. So that's fallen off the table more or less. However, I do feel like those made me particularly adept at, like, just picking up stuff kind of quickly. And kind of that's part of these corporate-y jobs—it's picking up quickly and move on if you can.

Taylor was in a similar position, having found a job as a developer at real estate firm that had a startup vibe. Taylor was completely self-taught as a developer through open learning, which he learned while receiving his bachelors' degree in economics. Before he graduated, he had multiple job offers with high paying salaries and he relished the job application process, which required him to demonstrate his knowledge in creative ways to companies. Taylor characterized his current learning as being able to learn on the fly:

A lot of it is just learning on the fly, but, like, constantly being like open-minded to learning new things. Like, I think you need to know, like, going into something like this that you're always going to have to learn. You have to keep learning. You can't stop. And the minute you do stop you're kind of going to get screwed. Like, maybe, like, a month or two, whatever, but if I, like, stop for a year the whole landscape 100% changes.

Being able to learn on the fly is one part of embodying trainability; it is the ability to learn quickly from changes necessitated by workplace demands.

Being able to learn on the fly worked in traditional workplaces and not just for entrepreneurs or developers. Keith, who had created the open learning guide and wanted to become a self-employed technology consultant full time, also found a high paying traditional job that utilized his skills. While he was no longer focused on open learning specifically in his job, he felt like the way he had learned helped him to hold on to a job in a company that was always facing layoffs:

Keith: Well, there's been a good deal of layoffs in the company I'm in now, but like, I was saying kind of my defense against that has been kind of pushing

forward and trying to show my unique skill set to the team to make them want to keep me around. And if I was to get laid off there, it would suck, but I would just fall back and probably go back into independent consulting again and start picking up work there, or I mean, I'll have a bigger resume at that point, too, so possibly I would probably do that, and then maybe throw out some resumes at the same time.

Interviewer: Yeah, you said you show them kind of your unique talents. How do you do that?

Keith: Just kind of going the extra mile, and some things where my team might be like, "well that's not our job. We're not coders and stuff," I might just jump in and start to figure out the next step, and kind of point it out like I did on a conference call with one of our developer guys earlier today, just to touch base to go over a couple of things with him to help point him in the right direction, whereas the rest of the team might not know where to start there.

Going the extra mile, plus having a bit of programming literacy, was helping Keith keep his job. Also, believing that he could fall back on entrepreneurship helped Keith feel like that job was not his only option.

In addition to being able to pick things up quickly or learn on the fly, participants felt like one of the best skills they learned was how to ask the right questions of the right people. In phase 1, I talked about how their learning-to-learn included seeking out opportunities to give and receive feedback. Participants had to learn to share and be open in order to validate their learning and advance to higher levels of expertise. For Sarah, this was not just a way to learn new content – it was a way to mature and be realistic about her own capabilities when she moved from her startup nonprofit job to a more traditional smaller scale consulting firm:

I feel more mature and I think that my experience learning and picking up things that quickly has just sped that up. I just kind of feel a little bit more confident in taking on tasks and knowing what kind of questions to ask. And knowing when I can say, "Yes, I know how to do that," and when I know that I need to ask for help.

Liam had a similar experience, noting that he now has the kind of network that he can leverage when he needs support, after completing a term at the low-cost Startup Institute. Liam was a career switcher who had already obtained a masters degree in higher education administration, worked in the field, but felt like there was little room for growth in a bad economy. He enrolled in Startup Institute, a low-cost, fast-paced 8-week program that taught participants entrepreneurial skills while introducing them to potential mentors and employers during 60-80 hour workweeks. Upon graduation, Liam was able to fuse his skills together and was hired by Startup Institute to help others make the most of their programs.

Learning to engage a mentor, Liam thought, was the best skill someone could learn for long-term growth:

So like, there's no question or problem I run into that there's not someone I know that couldn't help me with it. The question, is like, how do you leverage those people to do that?...I think identifying mentors is an important skill, you know. But I think it's more about connecting with people automatically. And then probably knowing when to go to which person...I think that would actually be important to be taught would be, you know, something to kind of engage a mentor, and keep circling back to kind of be your, like, learning-almost like, you know, an accountability measure to continue learning and developing.

This skill, engaging a mentor more formally, was one that Mark was learning at Y Combinator, but even in his structured mentorship environment the help was not automatic:

...They're very hands off. They'll only help you if you ask for it. So you're only going in maybe once or twice a week. And everything else, you're just working on your own. So they're to help and they're good at helping. I've got a vast array of partners that can help with different topics. But they certainly won't, like, come to you and say, "Hey, you know, you need help." They'll also wait for you to ask for it, because they want to help the startups that are thinking that way.

Even in a program that was primarily based on mentorship, mentors wanted to know that participants wanted feedback and knew how to ask for it. This was as much a skill as it was a value that participants learned. I consider this further in the next section on learning-to-belong in the longer term.

At the beginning of this section I asked how and if learning-to-learn operated in the longer term in order to assess the pedagogy of precarity as a method of learning. As stated in chapter 4, I have no way to account for how participants learned in formal education beyond what they reported. It is hard to say whether or not their ability to learn as reported in follow-up interviews is a direct product of the pedagogy of precarity or their past formal education experiences or something else. These variables cannot be easily isolated. However, when I listened to participants discussing their longer term learning, I was able to hear some of the same themes discussed in phase 1. I believe that the pedagogy of precarity worked as a method of learning in the following way: it continued to work as a way to navigate flexible, short-term, constantly changing work demands. Participants learned-to-learn so that they could continue to learn without structural supports when the next changes came around. Thus, I argue that the pedagogy of precarity worked as a method of learning.

6.2.3 Learning-to-belong in the Longer Term

And in those moments, I'm like, I can't believe that I'm here in front of all these people, who, I'm sure are, you know, have been paying so much student debt and went through these, like, big, you know, college degrees and stuff. And here I am telling them what

they need to do. –Annie, Senior Manager at a digital marketing company, 1 year of college

In chapter 5, I used Bourdieusian theory to show how participants learned-to-belong and argued that they did this by embodying a habitus of trainability. While habitus was embodied slightly differently for ideological and precarious learners, the effect was the same: pedagogized precarity took on the character of a competitive struggle, where the outcomes were either membership or exclusion. In chapter 5, I showed how participants in phase 1 learned-to-belong by conformity to the habitus of trainability.

In the longer-term, participants who continued to embody a habitus of trainability succeeded, even when they lacked credentials, signaling that the pedagogy of precarity can work as a successful challenge to credentialism. Learning-to-belong helped participants access more powerful and better connected mentors, who in turn could help them find better opportunities, a translation of cultural capital to social capital (Bourdieu, 1986). Mentors wanted to help people who wanted help, and did not want to waste valuable time helping aimless individuals. Participants signaled through curiosity embodied as a taste for usefulness and mutually supported mentors with an orientation to openness embodied as a taste for association. Mentors saw themselves in the younger people who approached them and, especially in the entrepreneurial world, the social order depended upon people who gave and received feedback. Angela, for example, was ready to leave her startup job and venture into something new when we talked during phase 2. Her

conversations with mentors were as much about figuring out what needed to be learned next or how to improve upon something as they were about validation:

So there was this one woman who works at [omitted]...So I knew her through somebody else and sat down with her for an hour. And she was wonderful and brilliant. And she's sort of, like, a hard-ass, like "I'm going to get shit done and this is how I'm going to do it." And she taught me a lot about just, like, business development and resources that I should look into, and sponsorships, and, like, how they run events. And it was really cool. And you know, I think I knew a decent amount of the stuff that she told me, but actually one of the really interesting things that I got from her was validation.

Angela was able to identify this mentor as someone who embodied perseverance as a freedom from possessiveness and taste for craftsmanship. Angela was able to see herself in her "hard-ass" mentor who likes to "get shit done", and at the same time feel seen.

Participants developed legitimacy beyond traditional credentials, finding opportunities for validation for what they knew instead of what they were credentialed to do. Annie, for example, had one of the most dramatic stories of being hired to do something based on an open learning portfolio rather than a college degree. After moving to a major city from a Scandinavian country to marry her American husband, Annie was determined to educate herself using open resources in order to avoid the high cost of higher education in the United States. She had completed one year of college in her home country, but even after separating from her husband she had no desire to finish her education at home, where the government would pay for her degree. Instead, Annie sent an email to all of the people she had met throughout her open learning asking that they keep her apprised of opportunities in marketing for which she might be qualified. Included in the email was a blurb about the kind of projects she had completed throughout

her learning and characteristics of the kind of workplace she would like to enter: one with intelligent people to continue to learn from and fun, young, hard working individuals. In one email, Annie managed to signal a taste for association, a taste for usefulness, a taste for craftsmanship, and a taste for risk.

Within a few days, Annie was contacted by someone who was more than willing to introduce her to a friend who had a job open. The job required a minimum qualification of a college degree, which made Annie nervous, but she decided to apply anyways:

So then I was called in for an interview and met with three different people. I was there for, like, three hours. And my university never came up more than, "Where did you go to school?" Because I did one year of [unrelated major] in [city] but I never graduated. It's not really relevant to marketing, but I said, you know, "Yes, University of [city]," and I actually had it on my resume that I had gone there, but it didn't say that I had graduated at all. So it didn't really bring up a lot of questions. And instead, I had brought a portfolio, both for resumes but I also built out the portfolio with visual examples of what I've done to try and make it, you know, into a bigger story than it, you know I could've downplayed it but instead tried to add in as much detail and as much positive spin to what I had done. And yes, then I was called back to meet with the director, I think mostly for culture fit. And yes, then they offered me the job.

Annie's portfolio helped signal to her future employer that she was capable and had already done the type of work for which they were hiring. For employers that were willing to look beyond credentials, people like Annie were in high demand. Those employers needed people with a habitus of trainability; people who could continue to learn and reform themselves in response to changing work demands. Annie was a perfect fit, and within a few months advanced to a senior management position where she was supervising people who had much more traditional education than she.

After Mark's company was shut down by the FAA, he also had an opportunity to go back to school, but decided to pass it up in order to onboard with one of the many other companies at Y Combinator that was hiring talent. The fact that Mark had successfully managed to get into Y Combinator with his startup was enough to signal to other founders that he was a worthy candidate, despite having not finished his degree. By choosing Y Combinator to work on a startup that would likely fail over finishing college, Mark showed his taste for risk and taste for craftsmanship. He wanted to see things through with his startup and felt like college would always be there if he wanted to go back. However, he did not go back when his startup failed. Mark discussed with me his decision to stick around Silicon Valley and not go back to school:

You know, after [company name] got shut down, I was kind of considering going back, but at the same time, I just saw this opportunity to - that you know, I just made connections with - the metaphor I'd use for it is eight different rocket ships, and I have my choice to pick which one I want to hop on. That was an opportunity I certainly couldn't turn down.

One of the eight different rocket ships hired him and as mentioned in the previous section, and he was continuing to learn his new role while building up his new company as a COO.

The pedagogy of precarity did not just work for those who did not have traditional credentials; it also worked for people who were carving out their own career path, like Alexandra, who had received an MA degree from an Ivy League university but was working for a few years in different roles at various social justice oriented startup nonprofits in order to complete a self-designed education in running her own venture. Alexandra noted how there was no real way to learn

about founding her own successful venture one day without really experiencing a lot of the different roles in an organization. She had mapped out all of the skills that she did have and did not have yet, and through open resources, her network, and stints at various organizations, Alexandra was working towards her goal. Alexandra was essentially using her curiosity and perseverance to chunk together a plan in order to explore different alternatives. In seeing her self-as-process, she displayed a taste for usefulness and a freedom from possessiveness.

In addition to successfully challenging credentialism, the habitus of trainability adopted by participants began to transpose outside of work-related learning and offered opportunities to classify and profit off of other cultural resources, like becoming “more interesting” as Taylor remarked, or investing in advocacy work in distinguished ways. Taylor, for example, picked up an audiobook habit while riding the train every day. Since living in the Northeast for a few years, Taylor remarked how he had made many Jewish friends, of which he had none while living on the west coast. Since he had so much success learning programming on his own, he found himself translating those same learning skills onto other topics, like learning about cultural issues important to his new friends:

I think, like, the more things, like, that you're exposed to there's like – how do I explain this – I think it might just come down to, like, becoming a more interesting person. Like, the more things you're exposed to you can talk about more, you can interact with more people, you can, like, understand people better, right? Well like, so I read a bunch of books that were super cool on, like, the Israel-Palestine conflict and all that stuff. And I knew nothing about it. And at home, I have no Jewish friends and I come to [university] and like all my friends are like hardcore Jews. Like, I go to, like, their Shabbat dinners and everything because everyone here is Jewish. And I just think, like, learning that – Like if I didn't know anything about it it's kind of hard to understand, like when everyone's at the dinner table talking about this. But it just makes you a more worldly person. I think that's super

important. Maybe some of them don't translate to, like, the job market and everything, I don't know.

While Taylor's traditional education exposed him to diverse groups of people, it was his habitus of trainability that gave him the confidence to learn more about people he had never met before, and what issues they might find interesting or troubling.

Advocacy for environmental issues came up with two participants in particular during follow-up interviews. Jess, for example, lived in an area where a big oil company was drilling extensively and man-made earthquakes were frequently occurring, far from any fault lines. Determined to connect with fellow citizens who wanted to expose the oil company for its negative environmental impact, Jess was creating an app in her free time to crowd source the tracking of the earthquakes. When we first spoke, Jess and her husband had recently gone into business together after both losing jobs during the recession. Jess did not have a college degree and had taught herself all of her relevant job skills online. During our follow up interview, Jess reported that her business was doing well and she listed some of the new skills she had learned, like coding apps for Apple devices. Needing a project and wanting to make a difference, Jess was creating her app, which was where a lot of her passion was focused when we spoke. Jess's taste for usefulness was going beyond her immediate learning and labor needs, as was her taste for craftsmanship and her taste for association.

Jin was also using his self-taught programming skills in the sustainability field, first working for a sustainability-focused startup not long before our follow up interview. He had recently left that position in order to freelance and have more time at home with his young children, but his interest in sustainability did not wane.

Jin was focusing much of his learning now on climate change and learning self-provisioning skills that could reduce his impact on the environment. By developing a habitus of trainability, Jin was able to enter learning spaces and communities that had goals other than challenging credentialism. Taylor, Jess, and Jin are examples of people who had found jobs using open learning and were successful based on these self-taught technical skills. Their successes, like the others, bring up the tension in higher education between competency-based models and credentials. One argument against competency-based models is that they often lack what many liberal arts curricula offer in traditional credential models: learning about others, the environment, and how to be a good citizen. While my follow up sample is small, the examples of those who learned beyond what was needed for their career are compelling. Is there, like the ideological challengers advocated, a new form of citizenship emerging here and is it aided by the habitus of trainability? While this question exceeds the scope of this study, further work could pursue how a habitus of trainability transposes onto other sites with other goals. In Bourdieu's (1984a) model, it would create another form of status distinction; however it is worth asking what that could mean for activism and citizenship³⁸. In the next section, I discuss some of the limits and challenges of open learning as voiced by participants.

³⁸ For example, see Carfagna et al (2014) on the emergence of an eco-habitus.

6.2.4 LIMITS, CHALLENGES, AND OPPORTUNITIES

In this section, I explore some of the challenges of the pedagogy of precarity and how some participants started to experience it as limiting, despite what it had offered for them as a model for learning and labor beyond credentialism. The pedagogy of precarity normalizes the short-term, fragmented, unstable work that Sennett (2006) details as the culture of new capitalism. While trainability offered a “something” that would help participants profit in this culture, some participants began to burn out and wonder if they would ever reach some of their long-term goals, like marriage and family. Other participants began to question the pedagogy of precarity’s sustainability as a model and not just for those who subscribe to it. Without an appreciation of long-term commitments beyond one’s own trainability, students of the pedagogy of precarity are at risk of conflating usefulness for public value, as mentioned in chapter 5. Therefore, much of what the pedagogy of precarity might produce is useless in terms of combatting precarious structural conditions. In this section, I describe how some participants were beginning to recognize the costs of a mostly free style of learning.

6.2.5 Limits and Challenges: Burnout and family planning

Like, you know if you could eliminate sleep. Like, if you get to be seventy-five years old, you’ve spent twenty-five years of your life sleeping. Imagine what you could do with all that time. –Mark

I wish everybody, whether they have family or not, had more flexibility to take care of themselves and who they care about. Like, it upsets me so much now about our workaholic society. Whereas it didn’t before, because I was in it, and now I’m like, “Oh,

wait a second. I don't know that that's so great anymore." – Mei, high-skilled tech employee with great benefits, new mother

While participants were able to learn-to-learn and learn-to-belong in order to sustain some type of longer-term success in the labor market, their success did not come without limits or challenges. Female participants in particular wondered about their ability to keep up the fast pace of learning new skills on the fly as they got older and contemplated family responsibilities. Male participants were less concerned about family responsibilities, but did fear that they would get left behind if they did not keep learning and adapting to a changing labor market, especially in technological fields. Taylor, as noted earlier, felt like he had to keep learning in order to stay relevant. Open learning gave him those skills to keep learning, but it did not give him a promise that he would reach a level where the additional learning was not needed – nor was it something he currently desired. Mark had a similar concern, noting that the only risk he could see in his future was that the business might outgrow him. "So I have to constantly stay at it," Mark told me, referencing the unspoken requirement that he continue his learning. Mark also waxed poetic about efficiency and what it would be like if we found a technology that eliminated the need for sleep. Referencing self-driving cars, Mark felt like we were on the verge of a real productivity increase thanks to new automated technologies. In a self-driving car ride to work, a person could catch up on sleep or work on that business presentation that needed tweaking. In his ideal future, Mark could work even harder and find more ways to be productive – something he was willing to lose sleep for.

While participants felt prepared to continue their learning thanks to the pedagogy of precarity, their bodies, minds, and sometimes families or family planning paid the price. In the introduction, I noted how Brittany experienced burn out, despite having been told to watch out for it. Tara, whose startup had grown and had achieved even more success since when we first spoke, was also starting to question whether or not she could keep up the pace:

I think there's still just as much pressure. There's competitors out there, there's pressures in other ways that still, even when you give people all of this "flexibility," there's still a lot of, like, stuff. Like it's part of the culture. Like, you know, there's a badge of honor being busy and working 60-hour weeks. And I think people are starting to try to change that but it's hard. And it's kind of like one of those things, like, you don't want to feel like you're taking your foot off the gas while somebody else isn't. Like, I know I said, you know, you don't really know any other way, but it is a bit of a cop-out. I mean, sort of the, like, cultural norm and standard. And there are people, like my friends that are, like, you know, "You shouldn't do that." And you know, "Our ancestors didn't sit in a chair for 12 hours. You should get up and move around." Or like, "You really will be more productive if you get more breaks." But I think it's hard to change, so it's sort of a constant experiment I suppose.

Tara, who was now in her late 20s, reflected that she could afford to continue that constant experiment now, but that she did have concerns about her future. In the startup world, her experience was the equivalent of an MBA and no one expected her to have a degree to do the work. In fact, she said with a sense of ironic humor, no one cares if you do have an MBA, even if it was from Harvard. Those people pay for the network, she stated, just like Alexandra noted about her own Ivy League degree. However, people in Tara's life were encouraging her to consider an MBA, so she could someday leave the fast paced, high risk start up world. Tara was reluctant, but did concede that she was not so sure about the future:

I'm not sure I want to do this when I'm in my 30s or 40s, but for now I certainly have the flexibility to figure it out. But we'll see if I do a second or a

third or a fourth company, or if I switch it to something else. But it's a decision I will make later.

Tara was old enough and seasoned enough to be strategic and have legitimacy in the start up world, but she knew that in a few years she might have to switch gears.

Angela, now in her early 30s, was at the point where she had to make that decision. Thinking back on her first startup, which failed, and now working at a startup that had succeeded, Angela talked about how risk did not faze her at first:

Like, I didn't care that I wasn't making any money, I didn't care that I was putting stuff on my credit card, I didn't care that I was, like, deferring all of my student loans and ended up building thousands and thousands of dollars in additional debt. I just didn't care because I was, like, "You know what? This is going to pay off in the end and I'm just going to take the risk now and I'm going to deal with it later. And even if nothing comes from it I will learn so much that it will have been worth it." And I think in a way I justified it by saying, like, you know, "I will have the same resume in two years that somebody else will have in ten." And, you know, I have had opportunities come my way because of the work that I did there, and I'm now the highest paid person at the [current startup]. So, like, there has been a benefit there.

Not only was Angela the highest paid employee, she also had secured equity in the company once their revenue model improved and they attracted more venture capital. The company had since expanded to several major US cities and employee management and supervision were added to her set of responsibilities.

Despite the company's growth, Angela was ready to move on, and learned that supervision was not something she wanted as part of her responsibilities. She was an entrepreneur at heart, a risk-taker, but years spent struggling financially made her queasy about another attempt at self-employment. Angela wanted to settle down and get married at some point; something she felt was incompatible with entrepreneurial risk-taking:

And I think after seeing what happened with my student loans, after struggling with them every single month and trying to figure out a way to refinance, you know, making a decent amount of money and still feeling like I'm living paycheck to paycheck because of all of the debt that I accrued during that time, I don't want to go back there. I don't want to, especially now that I'm in my 30s, and I feel like if I'm going to have kids it's going to be soon, and maybe I'm going to settle down and get married, and I need to get my financial situation straightened out. So I think that that is the thing that is driving a huge number of my decisions.

As noted earlier, Angela was tapping her network in order to figure out next steps, and felt secure because of that network, but the tone change from the first interview to the second was notable. In the first interview, she joyfully recalled sleeping on the floor of her office while starting her first company and showering at the gym because she gave up her apartment to invest everything into her startup. That kind of sacrifice was a badge of honor. Now, it was too risky, and in her words, "I don't want to go back there."

Mei was the only woman in my sample who had a baby since we last spoke, and I caught her in a very thoughtful, albeit sleep-deprived moment of reflection during our follow up interview. In the first round, Mei was working at a medium sized startup as a UX researcher and we had met at an offline class at Wintrepreneur. For Mei, an ideological challenger, open learning was a way for our society to focus on matters of the heart, a phrase she used to refer to open learning's potential to build a better, more generous and compassionate future. A daughter of two professors, Mei despised the rigidity of traditional education and the elitist culture of the academy. Her favorite teachers were adjuncts and people like the instructors at Wintrepreneur, people who had worked and knew the value of experiential learning. Since we first spoke, Mei had switched jobs to a larger financial technology

company after several of her coworkers made the move and invited her to come along. She loved her new job and was working with people who valued her, but her pregnancy changed her view of the workaholic culture she once valorized. Now, she was working from home part time while raising her new born baby, and said that most of her learning focused on child development and how to best nurture her child.

While Mei was grateful for a company and team that valued her and allowed her a generous maternity leave and the flexibility to work from home during the precious first few months of her child's life, she had fears about being left behind in her fast-paced job because she was not solely focusing on work. She was also beginning to really question national policies around parental leave:

Yeah, it's hard. I'm not going to lie. Since I had [baby name], I was like, "You know what? America hates babies. America hates families. They say all these things, but then there's like, no support. I'm just really fortunate that [company name] is big enough, and my team knows and values me enough to be flexible so that I can take care of my family. But when I took, like, the one-day, like birthing class there were, like, at least two women who only had six weeks leave. And I'm like, "you know, I could – by six weeks I couldn't go to the bathroom by myself." There was no way I was going to be able to go back to work. So I just – I'm so shocked at how little societal support there is for something that is so tremendously big and serious.

Never before had Mei discussed policy in our interviews; instead, Mei focused on more local and individual interventions that could be made in order to create stability or security. Open learning was one of those interventions, and places like Wintrepreneur, in her mind, played a critical role in building a local opportunity structure. Given her politicized views towards parental leave and the role of the state, I pushed a bit further to see if her views towards the state's role in providing opportunity structures through education had changed. They had not, and in Mei's

view, the state was responsible for providing access, not opportunity. That was the individual's job, to make the most of their education.

While some of the women in my sample struggled with or predicted struggle between their ability to labor precariously and have a family, Alexandra continued to reject norms that told her that she should be a married homeowner with kids as someone in her early 30s. She was living in a communal house and maintained the same views about questioning institutions and social norms. Instead of asking her what her kids were up to or about home ownership, she joked that her friends asked her what awesome projects she was working on to do good in the world. Those projects were like her babies, she said. Alexandra related the freedom to pursue an alternative path with open learning, while conceding that freedom had to be a conscious choice for a woman:

Alexandra: I mean, there are certain freedoms afforded to you if you decide, like, not to go that path, you know? But at the same time I think for women it does need to be a conscious decision that, again, now when I go to the OBGYN they're, like, "So what's your fertility plan?" I'm, like, "F*ck, I'm even behind on having a fertility plan?"

Interviewer: Yes, like, "Wait a minute..." [LAUGHTER]

Alexandra: But, like, the knowledge that, like, that's not something I need to fit in, then I can just do things that interest me and keep doing that until I can't anymore I guess. But open learning allows you to do that. Like, the privilege that I have is I can just follow the things that I'm interested in, and so open learning works for me.

Open learning, for Alexandra, afforded freedom and choice, but for women, choice meant tradeoffs.

The men in my sample were less concerned about marriage and family, but dating was brought up as a distraction for young men that were trying to build their

future. Taylor, for example, was still too young in his opinion to have to worry about having a family. However, in our follow-up interview he talked about breaking up with his girlfriend of two years, something he called “the best move ever” because he could not find time to balance the relationship with his work ethic. Trainability was the only long-term commitment in Taylor’s life, and that meant that romantic relationships had to be surrendered (e.g. Sennett, 2006). When I asked him about family plans for the future, he remarked that Mark Cuban gave up everything in his 20s in order to build his empire. Taylor was prepared to do the same, and reasoned that effort would equal results, no matter where he put his time.

Like, if you put in effort, like, you're going to see results, like with anything. If you go to the gym a lot, like, you're going to get in shape, you know what I mean? Like, I don't know, you go on a lot of dates you're probably going to find a boyfriend or girlfriend. Like, if you put in the time it's going to happen. I don't think it's risky. I mean, you want to put your time under the right things. You want to, like, go to the bar every night you're probably going to gain weight, like, maybe, like, lose all your money or something.

For Taylor, his time was best spent on work and continuing to learn and there was no acknowledgment that his 20s could be spent on more than work and learning.

It’s hard to say if Taylor would feel differently in a few years, but Marco, who was going on a date after our interview in phase 1, sounded a lot like Taylor at first: afraid that a partner would stand in his way or not understand his drive. When I asked Marco to tell me a bit about himself, he joked that it was good practice because he was going on a date that night and never knew how to introduce himself. Women did not understand him or his passion for work and he feared that he would not find someone understanding or equally driven. His lifestyle was demanding and even a bit weird at times, if you consider that he and his brother stayed up until all

hours of the night building their company. A few years later, when he did meet someone driven like him, he gushed about her work ethic and vision for the future. Maybe Taylor would find someone like Marco had, but it is worth noting how a few young men feared finding hard working partners while the young women feared keeping that work ethic up while starting a family. This is not a new struggle for women in the workplace, but the women in my sample had more flexibility at work than most women in traditional jobs and also had an advantage, given their ability to adapt and learn new things quickly. Still, the challenge of being a professional and a mother haunted them.

6.2.6 Limits and Challenges: The uselessness of the pedagogy of precarity

I just want to kind of balance myself out and I know there's, you know, other things in life out there, and just trying to figure out what is important to myself, my family, my community, this planet, and just, you know, trying to align whatever talents I have with whatever scenarios that get us to that win-win-win situation. –Jin

While burnout and family planning were contentious issues with open learners, Jin, now in his early 30s, was finding a balance between work and family. Having started out as a developer right out of college, Jin was now at a point in his early 30s where he could step back and reconsider what was important to him. He was beginning to question the values of the startup world and as a result was making changes in his own work life balance. Jin's talents were in high demand and he was one of my respondents who had not experienced precarity as a result of the financial crisis and recession. Jin's technological skills afforded him security during the downturn while others experienced precarity. Then, when he realized that his

children were getting older and that he wanted to spend more time with them, he scaled back on work and open learning in the middle of the night, but was still able to make a generous income. As noted earlier, Jin was also starting to learn more about climate change and the precarity he noticed was not so much an individual problem of labor uncertainty but instead a collective problem of environmental catastrophe. While there are many sources of blame for climate change, Jin pointed a finger at the world he knew: the startup world.

Startups could do immense good, Jin believed, but there was too much of a cultural norm of overwork and a tacit acceptance of growth, where the focus was on building something that worked rather than building something that could provide value:

Like, you know, we're really into startups and you know there's a lot of resources online and in the community on, you know, you have to work 80 hours per week and you have to, you know, do this and that, and you have to make your graphs up and to the right. And, you know, all of that is mostly good. But at the end of the day, you know, there's still some questions unanswered, like "Why does this startup exist in the first place?" You know, "Do we need another Angry Birds app or Flappy Birds?" You know, at what point do we need to consider if we're providing value to society?

His critiques could just as easily have been levied at the pedagogy of precarity and its habitus of trainability. A taste for usefulness condemned idleness, but never asked that usefulness be valuable beyond an individual's benefit. A taste for usefulness and its embodied curiosity builds the next Flappy Birds, makes the graphs that go up and to the right, and valorizes the 80 hour work weeks. Jin was beginning to question this taste for usefulness, and whether or not the pedagogy of precarity was really useful at all.

In my sample, there is no question that technological literacy benefitted participants and many of my participants learned it through the pedagogy of precarity. Even for those who did not learn how to code or research user experiences or build search engine optimization into company websites, there was a sense that just knowing about these things and having the language to discuss what they could or could not do benefitted participants. There is also no question that the pedagogy that emerged for participants was guided by the historical technological analog of open source software development. The culture of iterative, flexible, and autonomous individual work embedded in an open, feedback-driven, community of sharing was central to the pedagogy of precarity. While this culture disrupted traditional opportunity structures in a precarious labor market, there are real questions about its sustainability.

Alexandra, another ideological challenger, critiqued the taste for usefulness and taste for craftsmanship by calling out open learning's sustainability problem in our follow-up interview:

I mean, the big elephant in the room that we can only really say in that sort of post-mortem was that open learning had a sustainability problem, and that, like, you know, a very cutting-edge concept. Not a lot of seasoned leaders in the space do this sort of, like, mentorship and organize structures. And a sort of obsession with the experimental, which meant that there were very few tried-and-true methods. And not a lot of funders in this space either. You know, like, Hewlett was an OER funder, but MacArthur kind of withdrew their funding recently, which really put the whole sort of arena at risk... So, like, no one really addressed how this event was going to sustain itself.

Alexandra, who was arguably learning to be a leader in the open learning space, was starting to really notice how “an obsession with the experimental” was holding open learning back. However, I would argue that this obsession with the experimental is

exactly what made it possible for the pedagogy of precarity to become a method of distinction. The experimental suggests doing something because you can, not because you should or because it is needed. The experimental is distanced from necessity, but in my sample of precarious learners it also became inscribed on their fractured identities. The experimental was experienced as self-exploration when one had nothing to lose, when credentialism was a broken social contract in a precarious labor market, and the pedagogy of precarity turned it into a status symbol. Thus, while this sustainability problem might have implications for the next generation of open learners, my participants experienced a momentary durability in how they learned-to-learn and learned-to-belong, despite the precarity that many of them experienced. In other words, the pedagogy of precarity worked, even if embracing precarity became a condition of it working. In this way, it might not be all that different from credentialism, where the dominated accept the methods of domination from the dominant, because that is where legitimacy is cultivated (e.g. Bourdieu, 1984a). I conclude this chapter with a discussion of the potential for the pedagogy of precarity beyond my sample, which I attend to more thoroughly in the conclusion of this dissertation.

6.3 DISCUSSION

Follow-up data allowed me to assess the longer-term viability of the pedagogy of precarity within my sample of open learners and in this chapter I interrogated the

various ways that the pedagogy of precarity worked for participants. I argue that the pedagogy of precarity worked because participants embraced precarity and opened themselves to the possibility of more precarity in pursuit of their entrepreneurial ambitions. The pedagogy of precarity worked as a model of learning, where participants learned-to-learn as autodidactic communalists. It also worked as a model of belonging and challenge to credentialism, where participants embodied a habitus of trainability that allowed them to profit from the fragmented and unstable demands of work. The habitus of trainability was beginning to show signs that it was transposable across other contexts, which I suggest is worthy of further study. However, the habitus of trainability, in its disavowal of long-term commitments beyond a commitment to trainability, challenged some participants in the longer-term and exposed some of the limits of the pedagogy of precarity. Unsurprising, those limits were the very things that made the pedagogy of precarity an enticing project for participants in the first place. While I have cited her work earlier, I now draw out how similar my participants are to those in Neff's (2012) study of venture laborers in order to explain how a valorization of active choices can reproduce economic uncertainty.

Studying a risk shift from institution to individual, sociologist and communications scholar Gina Neff (2012) analyzed entrepreneurial behavior among employees of Internet startups during the dot-com boom of the 1990s that invested in their jobs as what she called "venture labor." Venture labor is "the investment of time, energy, human capital, and other personal resources that ordinary employees make in the companies where they work" (ibid: 16). For her respondents, economic

risk was framed as desirable, instead of something to be avoided. The desirability of risk shifted collective responsibility of uncertain economic times to individuals and she identified social and cultural processes that made employment risks seem “safe, natural, and routine” (ibid: 3). Neff writes:

The lure of risk – and by this I mean the idea of taking chances – replaced the fear of uncertainty as the predominant economic rhetoric of the Internet boom. This shift is subtle but important as risk and risk taking in economic life now imply active choices while uncertainty connotes economic passivity and forces beyond one’s own control (2012: 15).

In Neff’s (2012) study, she shows how her respondents went from producing envy in their peers to facing poverty when the dot.com bubble burst. In such a short amount of time, active, risky choices amidst uncertainty became valorized and then punished.

Like Neff’s venture laborers, my open learners made an active choice to learn-to-learn and learn-to-belong rather than employ a passive response to economic uncertainty. These active choices were critical for the pedagogy of precarity to work. That is, it is not a pedagogy for passivity. It took participants’ constant attention to testing and retesting ideas, seeking out feedback, and gaining mastery by iterating competency. While a person could sit back and listen to a MOOC passively, they were unlikely to learn much, and were better off listening to a few minutes of a video, turning it off, and trying out whatever they were learning. They may never come back to the original video, and by traditional education standards they would be considered dropouts, but in the pedagogy of precarity they would have succeeded. In the pedagogy of precarity, they made active choices to take only what they needed and invest their time and energy into those modular bits. As they were

learning in the second round of interviews, active choices come with tradeoffs, in how one spent one's time and what kind of future one would aspire to, especially in terms of marriage and family.

Unlike the dot.com boom, there is no bubble that will burst in the pedagogy of precarity. Many of its methods are already being adopted within formal education and formal universities are now the largest providers of open content thanks to sites like Coursera and EdX. As McMillan Cottom (2017) noted in the conclusion of *Lower Ed*, coding boot camps are now being marketed as mini-credentials and there are already pilot student aid programs being tested that allow people to use federal student loans to pay for coding boot camps. The pedagogy of precarity thus faces another sustainability problem: what happens when it becomes institutionalized, rather than pedagogized? Will it no longer be a pedagogy of precarity, or will it contribute to institutional problems that drove people in my sample to seek it out in the first place? I explore this further in my conclusion and propose further work on the pedagogy of precarity.

7.0 A MOMENTARY CONCLUSION

In this dissertation, I have argued that a new style of learning is emerging amidst changes in the labor market. I call that new style of learning the pedagogy of precarity and have emphasized that it has emerged to not necessarily challenge formal education, but to challenge the ways that we confer status, jobs, and life chances according to one's accumulation of qualifications. Sociologists call the systematic distribution of status, jobs, and life chances according to formal qualifications credentialism. Thus, the pedagogy of precarity is a challenge to credentialism and in this dissertation I have shown how a sample of open learners sought a different way to connect their learning to their labor when neither felt valuable after the 2008 crisis and subsequent recession.

In chapter 2, I showed how a paradoxical affinity to autonomy and the commons were intimately linked in the cultural histories of connected computing, open source software development, and the libertarian-leaning Californian Ideology. In chapter 3, I contextualized the nature of precarity in my sample of open learners within the historical contingency of the 2008 crisis and subsequent recession. In this chapter, I argued that precarious learners were pursuing an entrepreneurial vagueness as a way to manage the distance between status aspirations and objective chances. I also showed how ideological challengers had already mastered this

entrepreneurial vagueness and were using it to promote a challenge to the status quo of learning and labor, or credentialism.

In chapter 4, I showed how precarity had become pedagogized, a term used to describe what happens when we turn social moments into valid systems and transmissions of knowledge that can be learned, internalized, and acted upon. One part of the pedagogy of precarity, I argued in this chapter, is participants' ability and capacity to learn-to-learn amidst changing requirements, which Bernstein (1996; 2001) calls "trainability". Participants' learned-to-learn autodidactic communalism, the process of self-teaching by learning from others. However, they did not just learn content knowledge; they also learned how to belong. In chapter 5, I detailed learning-to-belong as the second part of the pedagogy of precarity. In this chapter, I returned to the entrepreneurial vagueness of chapter 3 and combined it with the findings of chapter 4 to argue that participants' learned-to-belong by adopting a habitus of trainability. This habitus allowed them to recognize opportunities to learn and belong within open learning and then profit off of that recognition within a short-term, fragmented economy. While lacking access to traditional forms of capital like not having a college degree or not coming from the right background, did not prevent one from adopting the habitus of trainability, this habitus still worked in exclusive ways. Thus, while open learning was technically "open," the habitus of trainability worked to close it down to those who could not conform to membership norms. In chapter 6, participants extolled the virtues and efficacy of the pedagogy of precarity, but also started to question its durability. Some participants found it harder and harder to conform to the habitus of trainability, and thus started to

calculate the hidden costs of a mostly free style of learning.

In chapter 1, I offered pedagogy as a structure-like concept in order to accommodate the lack of coherent institutions in open learning. I noted how this study was of precarity, not of social class, and how Standing's (2011) insistence upon the precariat as a new social class lacked a coherent theory of how this class comes together or pulls apart. I also noted how institutions and social class were integral to the ways that we typically theorize the boundaries and relationships between learning and labor. The pedagogy of precarity, as a challenge to credentialism, was constituted by participants as a way to reconfigure the relationship between learning and labor. While it was sometimes about 21st century skillification, or learning-to-labor, this model does not adequately capture the importance of the status struggles that valorized the pedagogy of precarity. Willis's learning-to-labor, whereby resistance leads to subjugation, also does not quite capture the relationship between learning and labor in the pedagogy of precarity. Many of my participants managed to succeed greatly as a result of the pedagogy of precarity, even if they encountered its limits and questioned its sustainability.

Learning-as-labor, the model that hails from a tradition of immaterial labor and cognitive capitalism, gets closer to the pedagogy of precarity because it insists on all things as pedagogic and therefore fits a model of pedagogized precarity. However, once again, this model fails to adequately appreciate the struggle for status in the pedagogy of precarity. Learning-as-labor has no way of locating power within the mutual struggles of actors and mostly adheres to learning and labor as modes of neoliberal subjectivity. While political economic conditions of

neoliberalism are integral to the nature of precarity within the pedagogy of precarity, I find them less integral to the pedagogy.

In chapter 1, I argued that “something else” was haunting the boundaries and relationships between learning and labor. The best way I have found to describe that something else is “laboring to learn.” The pedagogy of precarity relies upon autodidactic communalism, a model for learning that puts the burden of self-education on the individual and the community that she can access by successfully adopting a habitus of trainability. This burden is hard work, but it was also described as enjoyable and brought people alive. Like any labor in which one believes they have self-determination over the conditions of work and the culture of that work, it instilled a kind of quasi-dignity through a taste for usefulness, a taste for craftsmanship, and a taste for association. However, those tastes did not come separate from a taste for risk, and thus the pedagogy of precarity lacked sustainability, just as all labor lacks sustainability if not coupled with social insurance.

How does one advocate for social insurance when self-determination and voluntary association can at least temporarily make people feel alive, worthy, and productive? This seems to be the prevailing question of our time and the pedagogy of precarity is one more way that question can be posed. How do we take seriously the ills of elitism but not succumb to the kind of scapegoating populism that is threatening democracy? Standing (2011) predicted the potential rise of populism for the precariat, and the pedagogy of precarity, in its distaste of institutions, could be one more way members-only populism becomes taken-for-granted. Right now,

the open learning sites and practices described in this study are finding their way into higher education and are becoming more institutionalized. In some ways, this is a good thing: we are taking seriously the need for affordable and relevant education. In others though, this is disastrous. As Bernstein (2001) reminds us, relevance without meaningfulness is not good pedagogy. But then Bourdieu (1984a) would remind us that meaningfulness is the tool of distinction, and one must wonder if open learning's institutionalization will become what McMillan Cottom (2017) predicted: another example of Lower Ed. We must be careful about the ways that we make open learning relevant and the ways we make it meaningful; at stake, is our democracy, and our ability to intervene when it is threatened or to see ourselves as members of it even when our precarity is blinding.

I titled this chapter a momentary conclusion because the future of the pedagogy of precarity is very much in flux. As noted in chapter 2, much of the moment I studied in this dissertation has already passed. Open education sites are now offering more costly classes and programs of study, but they still cost much less than traditional credentials. McMillan Cottom (2017) notes that credentialism is creeping into open education with the emergence of for-profit coding boot camps from non-accredited organizations. These sites were in small quantity when I conducted my participant observation, but now I cannot lurk online without coming across several a day. The moment for free or low-cost autodidactic communalism may have passed. The participants in my study were very close to a precarity-creating historical moment; it is possible that their proximity to that moment made their learning very different than what one might find now, when some of the

precarity of 2008 and 2009 has become normalized. We also have seen our economy recover and therefore precarity may not be experienced as material or proximal now but more in terms of short-termism and flexibility, like what was valorized and embraced by my ideological challengers. Therefore, I do not argue that the pedagogy of precarity will go away, but our understanding of it must evolve as precarity evolves and as open education locates within formal higher education or credentializes outside of it.

I recommend that future studies of open learning take seriously the roles of self-determination and voluntary association that underscore the pedagogy of precarity, and not simply dismiss them as symptoms of neoliberalism. Future studies should also consider how the sociology of consumption could help frame self-determination and voluntary association. For example, when discussing a freedom from possessiveness, Sennett (2006) noted how consumption frames the culture in the new economy, in ways that the Sociology of Consumption is now attentive to, especially in its studies of consumer activism. I recommend extending this lens to education and learning and believe the pedagogy of precarity could benefit from a more explicit theoretical grounding in the sociology of consumption.

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APPENDIX 1: LIST OF SITES, PLATFORMS, AND RESOURCES NAMED BY PARTICIPANTS

Coursera
Udacity
P2PU
Code Academy
General Assembly
Wintrepreneur
Udemy
Treehouse
Stanford Entrepreneur Podcasts
EdX
MIT Open Courseware
Twitter
Google Analytics Academy
Various Blogs
Pinterest
Meetup.com
Startup Institute
Ted/TedX
SkillShare
Public Lectures
Google Search
YouTube
Audiobooks
Mixergy
Khan Academy
iTunes U
Getclicky
Wordpress forums
Wikipedia
GitHub
Facebook
Hubspot blog
NPR
Boundless
Scratch

Class-to-go
Adobe creative suite forum
Linda
Stanford Venture Labs
Reddit
SEOmox
OpenIDEO
LinkedIn
Tumblr
UnCollege

APPENDIX 2: INTERVIEW SCRIPT PHASE ONE

1. Tell me about yourself.

Probe for basics of educational profile (HS degree? Undergrad? Where?
Online/offline, etc)
What do you call this?

2. Your experience with open education –connected learning?

How and why did you get involved with open education?
What organizations, websites, resources, etc do you use as part of your
education? (P2PU, Skillshare, Udacity, Wikipedia, etc)

Is there one organization, website, resource, etc that you use the
most? Why?

3. Prosuming open education – the learning/teaching/peer relationship

How did you decide what you want to learn?
Has it been easy to find learning opportunities through open education?
Do you help others learn at all on open education platforms, through
teaching, mentoring, or posting on discussion threads?
Do you prefer classes that are moderated by a facilitator or classes that are
purely content driven? Why?
Have you designed any learning opportunities for yourself and others as a
result of your involvement in connected learning?
Has it changed the way you see your learning needs and your ability to meet
others' learning needs?

Besides skills and content knowledge, have you learned anything about
yourself through open education?

4. Cultural Capital

Tell me about your best learning experience and your worst learning
experience.

(prompts) What resources did you use to construct that experience?
Why did you want to learn that?

What went well about the experience?
What didn't go well like about the experience?
Did you interact with others?
What were the other people like?
What made you successful in this experience?

Tell me about the people you have interacted with on (insert organization), what are they like?

(prompt) How are they the same/different from you?
Do you think open learning is a good option for everybody?
Is open learning leading you to do new things?
Is there anything that's special about being a young adult that's important to open learning?
Do you have a plan for where you want to be 5-10 years from now?
(prompt) Does the open learning play a role in that plan?

5. Social Capital

Tell me about your connections, who you interact with and why?
(prompt) online/offline
What are your networks like?
Do people in your network know each other?

Has your professional life changed since you have been involved with open education?

There's a lot of talk about community these days. What does the word community mean to you?

Do you feel like you are part of a community?
Has participating in open education initiatives made you feel like you are part of a community?
Was the desire to expand your professional networks part of why you got involved with open education?
Has this lead to new opportunities?
Are you involved in any other practices outside education that are open-source?
(prompt) connected consumption – name organizations they might know about

6. Economy

What is your experience with traditional education?
Is this a rising, declining, or stable part of your lifestyle?
Has your participation in the open learning changed your participation in traditional education? If so, how?

Has your participation in the open learning changed the way you informally seeking out learning opportunities?

Did you get involved with open learning because it is low cost?

Does it save you money? Is that important to you?

Are you capable of obtaining the skills and experiences you get from open learning through traditional education?

Were you affected by the financial downturn that started in 2008?

Does your participation in the open learning have to do with that impact at all?

Some people are arguing we need a new model of education – do you think that's true?

Do you see open learning as part of it?

APPENDIX 3: INTERVIEW SCRIPT PHASE TWO

1. Following up from the last interview

The last time we spoke T years ago, you were learning X, working at Y, and talked about Z during our interview. Can you tell me about anything that has changed since then?

Probe:

Are you still using (list platforms/practices) to learn (list content/skills/disciplines)?

Have you learned or started learning anything new? What resources are you using?

Have you continued to engage with (list names/community) as part of your learning?

What kind of impact has your learning had on your life?
(sense of self/identity, social connections, work, etc)

Would you (still) recommend open learning to others?

Are you working? Where? For whom? How long have you been there?
Can you walk me through the jobs/gigs you've had since we last spoke?

Are you satisfied with your work situation right now? Do you see yourself continuing with your current situation for a while? For how long?

If not, where would you like to be with your work situation?

Do you desire long-term, full time employment? Why or why not?

How has your open learning helped or not helped your current work situation? What about your work aspirations? Will it contribute?

2. Economic Risk & Higher Education

One of the themes that emerged from the first phase of research was the relationship between open learning and economic risk.

Do you feel like your decision to learn through open resources was risky?

Do you feel like your decision to work at X was risky? Has this path felt risky? In what ways?

Has anyone in your life commented, in praise or critique, of your learning and work situation? If so, in what ways?

In our last interview, you were/weren't critical of the institution of higher education. Do you still feel that way? Has anything changed in your perception of the institution of higher education?

In our last interview, you were/weren't critical of the economy. Do you still feel that way? Has anything changed in your perception of the economy?

In our last interview, you said/did not say that the recession of 2008 affected you (in X ways). Do you still feel like that is true now that we're seven years out?

Where do you see yourself in five years? In ten years?
(Probe if inconsistent with answer to question from last interview)

3. Reflection

If you could do it all over again, would you still have started learning through open resources?

What, if anything, would you do differently?