Jumping the Gap: Indie Labour and the Imagined Indie Community

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ABSTRACT

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Due to the recent proliferation of free-to-use, professional-quality development tools, crowdsourced fundraising, and the ascendency of digital distribution platforms, 'indie' digital game developers are emerging on an unprecedented scale. Based on ethnographic research conducted at indie accelerator Execution Labs from January to June of 2015, this thesis explores how indie developers frame risk, creativity, success, and failure in relation to the communities they are a part of. The first three chapters highlight useful concepts from Gina Neff's 'Venture Labour' (2012), describe Execution Labs from the researcher's perspective, and detail the researcher's approach to collaborative embedded ethnography, respectively. The fourth chapter is dedicated to two related purposes: the first part will posit that communities of indie developers and indie fans share a common creative discourse, and thus constitute what Benedict Anderson has termed an 'Imagined Community' (2006). The latter portion of the chapter will explore how Newgrounds.com facilitated discourses about digital games and Macromedia Flash, and how the resultant imagined communities have influenced contemporary indie identity and development practice. The final chapter opens by proposing a definition of 'indie labour': a creative, communitarian strategy with which indie developers manage the risks they face. It will then consider the stories of those who performed indie labour as part of Execution Labs. This thesis will conclude by ruminating on potential future avenues of study and ongoing issues that hinder indie development's potential as an open and accessible praxis.

ACKNOWLEDGEMENTS

Just as this thesis has been written, in large part, on the power of collaborative community, it is also the product of a community. My dear friends at TAG, mLab, and elsewhere: my thanks are with you all. You kept me inspired, analytical, and determined where I might otherwise have faltered. Thank you.

My heartfelt appreciation goes out to all the good folk who work or have worked at Execution Labs. You welcomed me in, relayed your doubts, shared your hopes, and brought me along for three of the more engrossing months of my life to date. I can only hope that I have done your stories some small justice in the text that follows.

Jennifer and Bart: I couldn't possibly thank both of you enough for the opportunities you've extended, the guidance you've provided, and the support you've offered. In the past two years, you've both consistently gone above the call of duty to help and open up new possibilities for our community of scholars and creators; for that reason, I consider myself incredibly lucky to count amongst their number.

I owe an especially immense debt of gratitude to my supervisor, Mia. From convincing me to wade back into the world of game studies, to building and sustaining the mLab—the place many of us call home, to getting me through the thesis process alive and (mostly) hale, your influence can be found in almost every aspect of my academic life these past two-and-a-half years. Your magnanimity throughout has been nothing short of saintly. Thank you for always finding the time.

To my family; Mom, Dad, words fail utterly to express how grateful I am for your support through everything. The proverbial seas haven't always been calm, but you've both kept me afloat and on course even when things were at their roughest. And Oliver, I can tell you honestly that if I hadn't had the chance to fall in love with watching you play games when we were young, I wouldn't be watching people make games today. Thank you all so much.

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CHAPTER 1 — A GAME OF RISK

> ---------- Forwarded message ----------
>
> From: Kickstarter <no-reply@kickstarter.com>
>
> Date: Tue, May 5, 2015 at 12:11 PM
>
> Subject: Project Update #9: … (Canceled) by Nightwatch
>
> Hello everyone,
>
> It is a rather painful thing to do, but we had to cancel the campaign and redirect our efforts. … Believe me when I say that no-one is more saddened than me that I had to cancel the Kickstarter. [Our game] is our dream project, something we all want to make at Nightwatch. It's not over yet, though. We will keep you posted on updates about the game. We have a new forum where people can stay in close contact with us. If there's enough activity there, we might also send out a playable demo of our game to forum members to gather feedback. Maybe once we have something playable, it will be easier to get the attention from the press and thus build a larger community. … Thank you 1029 times for your incredible support. We'll do everything we can to make [our game] a reality. Those who have known Nightwatch for a long time know that we don't give up easily.

When it arrived in the middle of an otherwise unremarkable afternoon in early spring, I couldn't help but notice the arresting effect this email had on me. Despite steeling myself for what I was about to read—a process which roughly amounted to repeatedly reminding myself that I was a scholar, dammit, and that I owed it to my research not to let emotional attachments get the better of me—I couldn't help but share in the disappointment. Six young independent game developers from Quebec City had founded a company together, relocated to Montreal, and anted up nearly half a year of their working lives in exchange for a shot at raising the funds necessary to continue working on their game project. Relying on Kickstarter for said funding was a risky proposition; once initiated, an unfinished demonstration of their game would be thrust into the internet's

mercurial ether where they and their product alike would be judged by all passers-by. They were asking for $150,000 in pledges. They received a little over one-third that amount.[1]

What went wrong? Less than one in every three of all game-related Kickstarter campaigns are successful (Kickstarter 2015), but Nightwatch seemed poised to buck this trend. Their project had, after all, been publicly tweeted about by more than one legendary industry veteran, appeared visually impressive, and was bolstered by undoubtedly innovative ideas. Other well-marketed, innovative games had succeeded on Kickstarter before, even in the absence of a pre-established community. Why was this different? In the eyes of at least one interested observer,[2] Nightwatch Kickstarter failed to thrive because they had not distilled their Kickstarter 'pitch' down to a narrow set of easily communicable ideas.[3] Tanya X. Short echoes this argument, claiming that a solid game demo with outstanding marketing is no longer sufficient for indie developers to succeed:

> An indie hit isn't necessarily about having the best design, it's about having the best "hook." A "hook" is a potentially viral seed in the game and its perception that not only convey the game's value, but are, themselves, intrinsically valuable. It makes the game, or its intention, remarkable. (Short 2015b)

The Nightwatch cancellation email seems to reflect this reality: they had started thinking of ways they could continue to engage the people who were interested in their project, directly implicate them in certain facets of development, and eventually harness this grassroots activity in support of a renewed, re-focused Kickstarter campaign. Theirs was an outwardly sound strategy, but it required that the studio be able to survive until such a time as another Kickstarter campaign was in the cards, or another source of funding was secured. In many cases, a studio's ability to weather such a period of uncertainty is far from assured; failed Kickstarters have doomed larger studios with better visibility and more star power than Nightwatch (Phillips 2013). Fortunately for Nightwatch, they had some help from one of the world's only start-up game development studios: Execution Labs (XL). Thanks in part to XL's assistance, Nightwatch did not collapse and has

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[1] I have intentionally omitted a citation for this information, as it would involve linking to a website which would reveal the real name of both the studio involved as well as the game project; doing so would contradict my decision to utilize pseudonyms throughout this thesis.

[2] Who, owing to the delicate nature of their claims, will remain unidentified—even by pseudonym.

[3] Amongst other issues for which Nightwatch cannot be faulted.

instead bounced back with aplomb: the Canadian Media Fund recently awarded Nightwatch $1 million to bring their game to completion.

Starting in November 2014, I was invited to join Execution Labs (XL)[4] as their resident embedded ethnographer. Execution Labs has involved itself in the sea change that the digital game industry is currently undergoing. With the recent proliferation of free-to-use, professional-quality development tools (such as the Unity Engine[5]), crowdsourced fundraising (such as Kickstarter and Indiegogo), and the ascendency of digital distribution platforms (such as Apple's App Store or Valve Corporation's Steam[6]), the game industry's once-insurmountable barriers to entry are becoming increasingly porous (Whitson 2012). Although developers have more direct access to development, marketing, and publication systems than ever before, it is also more difficult to stand out amongst an overcrowded field:

> There was a time on the App Store and the Steam marketplace where any decent game with good marketing could be a financial success. It seems those days are waning. As Valve slowly opens up the floodgates of Greenlight, the question is shifting from "How do I get on Steam?" to "How do I stand out on Steam"? (San Filippo 2014)

While parables about small, independent teams of developers striking video game pay dirt and becoming millionaires are still widely circulated (Wawro 2015), the vast majority of contemporary indie game projects prove unable to survive until completion, to say nothing of turning a profit (Whitson 2012, 126).

In offering game developers funding, mentorship, playtesting sessions, analytics services, production assistance, and access to industry networks as well as a bustling indie community, XL's goal is to foster an environment in which indie start-ups can grow into stable, self-sustaining studios. Execution Labs may be helping indie developers get their studios off the ground, but it

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[4] Hereafter abbreviated to 'XL,' where appropriate. This is the polysemic abbreviation that Execution Labs staff, executives, and participants use to variously refer to the company, the cohort (teams in cohort), the program (pre-production accelerator), or, erroneously, the entire office space that is better addressed by the umbrella organization that it is conterminous with and which oversees it – 'Gameplay Space.'

[5] Initially, at least – Unity is freely available to anyone who wishes to use it, but professional licenses must be purchased after companies or individuals begin to return annual revenues of $50,000 or more (Unity Technologies 2015)

[6] Valve Corporation's online game store, download service, and social networking tool.

would be a mistake to claim XL is making it easy to start a game studio. For most aspiring indie developers, founding a studio involves anteing up vast swaths of time, personal resources, and effort, all in the face of considerable risk and uncertainty. What is it that drives game developers to pursue creative vision in spite of the considerable material and emotional costs? How do developers frame and justify the risks and uncertainties with which they must contend? How do fan and developer communities factor into indie identity and the management of said risks?

Over the course of five chapters, this thesis will explore how indie developers frame risk, creativity, success, and failure in relation to the communities they are a part of. The remainder of this introductory chapter will lay the groundwork for my investigation, highlighting useful concepts from Gina Neff's 'Venture Labour' (2012), and relevant historical context derived from Casey O'Donnell's description of flexible labour practices in the mainstream game industry (O'Donnell 2014), as well as some of the contingent and contested definitions of what it means to be an 'indie' cultural producer.[7] The second chapter will introduce indie accelerator Execution Labs, describing it as I encountered and experienced it from November 2014 to June 2015. The third chapter will detail my methodological approach to the task of observing Execution Labs, interviewing participants, and participating in community activities and events. The fourth chapter is dedicated to two related purposes: the first part will posit that communities of indie developers and indie fans share a common creative discourse, and thus constitute what Benedict Anderson calls an 'Imagined Community' (2006). The latter portion of the chapter will explore how Newgrounds.com sustained imagined communities built upon digital games and Macromedia Flash, as well as how Newgrounds.com communities have influenced contemporary indie identity and development practice. The fifth and final chapter opens by proposing a definition of 'indie

[7] It bears mentioning that by grounding my study in this way, I am directing my attention away from a broad swath of pertinent cultural studies, media studies, and communications studies literature. For instance, John T. Caldwell's (2008) work on the systems of belief, public relations management, and cultural practices of film production workers could shed light on the central role of 'the pitch' at almost every level of Execution Labs. Angela McRobbie's (2004) exploration of the British fashion industry, in particular, speaks to artistic-commercial tensions comparable to those described later in this thesis. David Hesmondhalgh and Sarah Baker's works on creative labour (2013; 2010; 2008) explore the contradictions and challenges that creative workers negotiate, especially as pertains to perceptions of freedom, autonomy, precarity, and networking—all of which are germane to Execution Labs and others who do work with 'indie' more generally. Any of the above works could be productively applied to the data gathered for this thesis project and would guide the discussion in intriguing new directions, most of which would lie beyond the scope of this investigation. Consequently, I have elected to not engage with the aforementioned literature.

labour': a creative, communitarian strategy indie developers employ to manage the risks they face. It will then relate the stories of those who performed indie labour as part of Execution Labs' winter 2015 cohort, examining their experiences in light of Gina Neff's call to support start-up labourers "so that innovative and creative jobs can also be stable and good jobs" (Neff 2012, 165). This thesis will conclude by ruminating on potential future avenues of inquiry that the concept of indie labour opens up, the concept's applicability to other media forms, and ongoing issues that hinder indie development's openness and accessibility.

Throughout, this thesis will repeatedly refer to interviews, primary observations, field notes, recordings, chat client logs, and recollections of casual correspondence that were gathered as part of the ethnography project's mandate. In every case save one, participants consented to the publication of their real name alongside the name of their company and projects—past, present or future—that their company had worked on. Nevertheless, early on the writing process, the decision was made to withhold the cohort participants' actual names from publication. Instead, each of the participants from the winter 2015 cohort—alongside the names of their games and their studios—will be referred to by a pseudonym.[8] Other interviewees, such as alumni and XL staff, are referred to by their real first names. More detail on the manner in which data was gathered can be found in the third chapter of this thesis, entitled 'Chapter 3—Methodology, Reflexivity, and Access.' Henceforth, all direct quotations taken from the primary observation, interview data, and ancillary documentation will be presented in the form of a block citation with a distinct font and alignment. Each such quotation will, in the case of textual sources, indicate its source at the outset. Data from interviews, conversations, or public presentations will list the name (or pseudonym) of the speaker in bold. Text indicating the interviewer's speech will be italicized.

Risky Work and Venture Labour

Gina Neff found the inspiration for her book, *Venture Labour*, (2012) in stories she heard from friends of hers who—for a variety of reasons and with varying degrees of success—had opted

[8] Some of the opinions the interviewees expressed during the interview process were highly sensitive in nature and could be potentially damaging to their reputations. Even though care was taken throughout the writing process to omit some of the more controversial segments, I decided to use pseudonyms to further lessen the possibility that this research causes anyone to come by undue harm, inconvenience, or embarrassment.

to seek employment in America's nascent internet industry in the mid-to-late 1990s. Prior to the industry's crash in 2000, the prospect of relocating to and seeking employment within one of America's two production hubs—California's Silicon Valley or New York's Silicon Alley—seemed risky, yet lucrative. To the 'dot-commers,' the risks were knowable and—with the sufficient application of prudence—manageable. If an employee's company failed to produce an initial public offering (IPO) or failed entirely, the employee's skills, network, and experience could be called upon to provide a new position in another firm. In addition, the internet industry's rapid growth and attendant ability to attract new venture capital ensured that job positions were perpetually on offer (Neff 2012, 101). Knowing that not every bet would pan out and that companies could and would collapse was an accepted price of admission. What internet industry workers could not have possibly accounted for, however, was that the flows of venture capital would suddenly dry up and a significant portion of the internet industry's firms would suddenly close or stop hiring. Curiously, rather than blaming systemic forces beyond their control, those affected by the industry's dramatic downturn blamed themselves for their misfortune. In the aftermath of the dot-com bust, Neff noted many of the people she spoke to framing their misfortune as a product of not taking *enough* risks, or taking bad ones, rather than the industry's inherent uncertainty being at fault. It would be easy, Neff (2012, 2–3) claims, to dismiss those Silicon Alley workers who were negatively affected by the dot-com bust as lacking perspicacity, but the far more interesting approach would be to ask what made taking risks seem natural, commonsensical, or even desirable: "Rather than ask why dot-commers made those so-called stupid choices, we should instead ask what made taking such chances seem like a good idea at the time, and examine the economic and social processes and cultural contexts for those decisions" (Neff 2012, 3).

Gone are the days where long-term, stable careers with a single company or agency are the norm; instead, workers are increasingly focusing on ensuring that that they are in the best possible position for finding new work when they are laid off or forced out of a job (Neff 2012, 6–7). According to Rosabeth Moss Kanter, workers "increasingly depend on their employability by many firms. The shift from employment security to employability security implies a fundamental change in what people should expect from their employers – and how employers should think about their interests and obligations" (1989, 9). Neff (2012, 6–10) attributes the burgeoning ubiquity of this 'risk privatization' to three trends which predate the dot-com era. Financialization, the first of these trends, points to the recent focus on generating profits from financial capital,

rather than profits from productive capital. The internet industry is an exemplar of this shift, as many Silicon Alley start-ups devoted their full attention to attracting venture capital, speculative financing, and, ultimately, conducting a lucrative IPO, rather than seeking profit from sales or services revenue. Valuation, the second process, refers to the social construction—and, consequently, the negotiability—of the economic value of goods and labour. The third process—which Neff terms 'flexible work practices'—encompasses the cultures of flexibility, instability, insecurity, and informationalization that have come to pervade contemporary contexts of work. "Employees now," Neff asserts, "see risk taking as so inherent to their jobs that many of them see risk as the only access to economic opportunities" (2012, 8).

Those who fully embrace risk as an avenue to payoff are embodying what Neff calls 'Venture Labour' (Neff 2012, 16–34). Venture labour is a strategy workers use to manage the risks they face while navigating uncertainties in the contemporary labour market. Neff defines Venture Labour as "the explicit expression of entrepreneurial values by nonentrepreneurs" (2012, 16). This expression can assume a wide variety of forms, but each of them involves some awareness on the part of venture labourers that their contributions to a company are an investment in their future employability and their company's continued success; the ultimate goal of venture labour is to receive some form of eventual payoff. The term's conceptual proximity to 'venture capital' is intentional: both are forms of investment upon which fledgling companies rely: "One of the reasons new companies frame uncertainty in particular ways is because they need people willing to take risks. The discourses of risk during the dot-com boom encouraged people to take risks and not to fear failure" (Neff 2012, 4–5).

Accepting higher levels of personal uncertainty prompted dot-commers to manage risk through talk: "people talk about economic risk personally, not as a social phenomenon, and their justifications, rationalizations, and strategies for risk are tied to very personal ways of evaluating the world" (Neff 2012, 69). In the case of Silicon Alley dot-commers, Neff identified three discursive strategies they used to frame the risks they faced (2012, 94). The financial strategy framed risk as an opportunity for financial gain and viewed individual companies as the best place to invest one's labour; the better the company did, the better one's stock options would be. The creative strategy, by way of contrast, was loyal to a particular project, the successful completion of which would contribute to the dot-commer's reputation and portfolio. To the 'creative' worker, risk was 'fun,' or 'no big deal,' and both success and failure were cast as leading to a similar end:

leaving the internet industry for a different medium. Finally, the actuarial strategy positions labour as an investment in an individual career; risk, from this viewpoint, is a liability to one's prospects for career advancement and future employability which can be avoided through prudent planning and preparation.

Elements of venture labour can be seen operating in the way game developers talk about their work (see: O'Donnell 2014, 160). The concept, however, cannot be applied without accounting for particular technological and cultural factors which define the mainstream game industry.

Horror Stories from 'The Industry'

> Say you work for a video game studio. You and your team have just released a new game, and you're damned proud of what you've just put out. It's not perfect, but you did the best you could do with the budget and time constraints you had, and now you're excited to take a nice long vacation.
>
> One day, you get called into a meeting. The company has to cut costs and will be 'reducing headcount.' You – along with 20 other people – are no longer employed. This wasn't for incompetence, or negligence, or anything else that you could control. You did nothing wrong. Your name just happened to be on the wrong list at the wrong time.
>
> Get drinks with someone who works in the video game industry and you're bound to hear at least one story like this. In gaming, layoffs are routine. (Schreier 2014a)

The above passage is taken from a series of Kotaku.com articles collectively entitled 'Video Game Layoff Stories' (Schreier 2014b). As if the need for such a series were not damning enough, the articles contained therein are riddled with galling developer-submitted accounts of how their lives were suddenly and precipitously disrupted when their positions were unceremoniously terminated. Although some semblance of collective awareness about the mainstream game industry's exploitative labour practices is beginning to coalesce (O'Donnell 2014, 18–20), many game developers continue to buy into and reinforce the very systems that make working in the industry

risky and precarious. Consider the following passage, taken from an article which Harvard Bonin, game producer, posted to Gamasutra.com:

> The best thing that ever happened to me professionally was being laid off.
>
> Over the past few years, it seems that game developers have increased their frequency of this practice. Some companies (allegedly) have made it a matter of policy to stack-rank their staff and layoff the low performers each year arbitrarily. I can't count how many times my Facebook wall has been filled with sad stories from old friends. This is a small industry and almost everyone knows someone that has been affected over the years.
>
> This past year I was laid off. I was shaken and had no idea what to do. I was upset, confused, embarrassed and looking for answers. My world was rocked…. But it did not beat me. I immediately fired up my dormant, unused burners. I decided to "produce" my way out of my layoff. I didn't let my feeling of failure bring me down. (Bonin 2014)

The attitude that Bonin evinces in the above passage is a good instantiation of the trends Neff identifies at the outset of her book. Despite Bonin's recognition that regular, arbitrary layoffs are an inextricable part of the game industry, he still took personal responsibility for his 'failure,' and decided to invest his time and effort into ensuring that he would be employable in the industry again. Even more tellingly, he also chose to frame the all-too-real risk of employment termination in a positive light—as an opportunity to learn, grow, and expand one's professional horizons. Bonin might have gotten lucky, but for many other developers, including many of the developers who shared their experiences in Kotaku's 'Video Game Layoff Stories' series, working in the game industry is a constant battle against factors unquestionably beyond employees' control, such as studio buyouts (O'Donnell 2014, 153), development portfolio adjustments (Kerr 2006, 65), labour outsourcing (O'Donnell 2014, 13), or the cyclical nature of AAA game development which requires vastly different team sizes based on what stage the project is in (Whitson, Simon, and Della-Rocca Forthcoming). In sum, for those who work in the mainstream video game industry, the pernicious effects of the 'risk society' (Beck 1992) are especially pronounced.

Casey O'Donnell's longitudinal study of the game industry reveals how flexible work practices and venture labour manifest in game development praxis. His book—*Developer's Dilemma*—is primarily interested in uncovering and investigating the systems of 'creative

collaborative work practice' that typify new economy work in general, and game production in particular (2014, 30–31):

> New economy work, exemplified by game development practice, is dependent upon and producing new modes of creative collaborative work practice. The way these practices play out and the structural conditions they play out within, however, simultaneously undercut creative collaborative practice. … At the core of creative collaborative practice is the ability and necessity of being able to play with and get at underlying systems: technical, conceptual, and social. When access to underlying systems is undermined, so too is creative collaborative practice. (O'Donnell 2014, 31)

Across most of the mainstream game industry, however, individual developers' access to these underlying systems is cripplingly constrained. As a precondition of working for major publishers, console manufacturers, or the third-party studios contracted to them, developers are all but forced to consent to—and thus reinforce the position of—what O'Donnell describes as the 'Secret Society Syndrome' (2014, 14, 205–206).

In one sense, fostering a culture of secrecy is an attempt on the part of the games industry and those who work within it to set themselves apart from other forms of work: game development is not perceived as 'real' or 'ordinary' because it is seen as effectively playing games all day in a laid back, ultra-creative environment. It is this perception, O'Donnell argues, which lends a mythical sense of mystique and desirability to game development labour (2014, 39–40). Game studios also belong to a culture that values individuation—developers take pains to distinguish themselves from other development studios, often making claims that amount to "we do things a bit differently here" (O'Donnell 2014, 39). In another sense, the practices and technologies used to develop games are similarly obscured and unknowable; O'Donnell evokes the metaphor of the Labyrinth to discuss how the technologies and practices that developers employ are often a product of muddling through unexpected problems as they arise, individually, and with no way of retracing the steps taken (2014, 78–79). These solutions are ad-hoc, specific to the game they were created for, and—most troublingly—not shared between studios, projects, or even different individuals working on the same project (O'Donnell 2014, 74, 78):

> The mechanisms that enable developers to interact with their systems, data and each other are infrequently discussed or shared. Even if flexible

> technologies are shared between teams, critical information, such as the social practices that surround these tools are omitted or are simply referred to as "tools." No explanation is given as to what these technologies do or what they accomplish for game developers, nor how the designers, artists and engineers can improve their work using flexible technologies to work together or independently. These tools are unknown until someone has begun working in the game industry, and are generally cloaked within each team even though these tools are cited as one of the most important components of the game development process. (O'Donnell 2014, 74)

O'Donnell attributes the rise of the 'Secret Society Syndrome' to a variety of interrelated forces, the origins of which can be traced back to the introduction of proprietary lockout systems used by major home gaming console manufacturers to force developers to pay exorbitant licensing fees, assume most of the publishing risks, and agree to draconian Non-Disclosure Agreements (NDAs) designed to keep all aspects of development and the terms of the licensing agreement itself a closely-guarded secret (O'Donnell 2014, 186–192). If developers—or their employees—were to break NDA or otherwise upset one of the major console manufacturers, they would run the risk of having their access to a Development Kit (or 'DevKit,' leased from the manufacturer for a not-insignificant sum) revoked (O'Donnell 2014, 200). Without access to a DevKit, developers lose both their ability to develop for home consoles and, consequently, their access to the most lucrative video game sales market (Kerr 2006, 52). All of this has combined, O'Donnell argues, to sustain a culture of comprehensive deference to secrecy and an inborn reluctance to share, distribute, or discuss development tools or practices (2014, 198). Even the most seemingly-innocuous discussion could be a breach of NDA and, thus, spell disaster for a studio—to disobey is to be cut off from the secretive, closed networks of privileged access without which developing console games is nearly impossible (O'Donnell 2014, 181). As such, developers play along with the rules set by the manufacturers; O'Donnell evokes Antonio Gramsci's notion of 'hegemony' (Gramsci 1975) to describe the deeply-ingrained consent to coercive power which ultimately manifests as 'built-in paranoia' and 'constant self-policing' (O'Donnell 2014, 205–206): "The culture of secrecy and the culture of the NDA has pervaded development so fully that developers no longer question the logic of the limitations or what their implications might be" (O'Donnell 2014, 207).

As a result of manufacturers' unwillingness and developers' inability to share information about platforms, code, and development praxis, the game industry remains risk-averse, inefficient, and immature (O'Donnell 2014, 74, 190, 210). Most game developers who work for studios affiliated with major publishers or manufacturers are cut off from the potential knowledge, resources, and support that other developers and communities could offer. Without access to these networks, developers are often forced to come up with their own solutions to widely-experienced problems with software, development platforms, work practice, and DevKits—solutions that, in the absence of the secret society syndrome, could have been freely shared. Rather than being allotted extra time or resources with which to develop these solutions, developers are made responsible for delivering finished products in a certain timetable, regardless of many extra tasks developer find themselves forced to take on. Thus, front-line developers bear an overwhelming amount of unpaid overtime—called 'crunch' (O'Donnell 2014, 137)—in order to shore up the gaps that could otherwise be filled by freely shared knowledge in the context of less restrictive NDAs and less pervasive secrecy culture (O'Donnell 2014, 98). Any hardships faced while ameliorating the aforementioned problems are framed as failings on the part of the developer: "If you crunch, it's because you did something wrong. And if you object to crunching, you shouldn't be in the game industry" (O'Donnell 2014, 151).

This individualization of risks spawned from systemic ills pervades all aspects of the mainstream game industry. O'Donnell writes:

> Many game developers exhibit an entrenched commitment to notions of 'meritocracy,' within the game industry. If game developers are any good, they can go anywhere. If developers are without work, then they must not be very good. … The two aspects of employment and job search combine to obfuscate systemic issues in the game industry, transitioning blame from external aspects to individual ones. For example, there is an assumption that a developer's performance and compensation has a direct relationship to an individual's skills. If a developer is unsuccessful or not paid well enough, the problem is a personal one; there is no possibility that structural issues might be condemning developers. (O'Donnell 2014, 151)

Front-line developers working in the mainstream game industry are often forced assume individual responsibility for many of the systemic risks faced by venture labourers in other fields, only

without even the slightest recourse to the narratives of autonomy and choice used by dot-commers during the height of the internet industry (Neff 2012, 11). The unstable nature of mainstream development creates a disincentive to abandon one's position until forced to do so by a studio buyout, closure, or the cyclical downsizing process that follows many AAA releases (Whitson, Simon, and Della-Rocca Forthcoming). For some, such as Harvard Bonin (2014), labour precarity is a nuisance at worst, and a potential opportunity for those enterprising enough to view it as such. For the many others whose personal accounts litter Kotaku's 'Video Game Layoff Stories' series (Schreier 2014b), labour precarity in the game industry forced them to seek greener pastures in other industries—a process the games industry colloquially refers to as 'burning out' (O'Donnell 2014, 265). In recent years, a countervailing trend has presented developers with a viable—if comparatively riskier—alternative to seeking employment in the mainstream AAA industry: thanks in part to the ascendency of digital distribution and free development platforms (Whitson 2012, 126), an increasing number of game developers are opting to start their own indie studios.

Breaking Away – Indie Development

As established earlier, Execution Labs' very existence is inextricably bound up in the emergence of indie development as a recognizable praxis, distinct from other forms of professional game development. According to David Hesmondhalgh, 'Indie' has its origins in the music industry as an offshoot of Britain's mid 1980s Post-Punk scene (Hesmondhalgh 1999, 35).

> The mid-1980' coining and adoption of the term, an abbreviation of 'independent' (as in independent record company) was highly significant: no music genre had ever before taken its name from the form of industrial organization behind it. For indie proclaimed itself to be superior to other genres not only because it was more relevant or authentic to the youth who produced and consumed it (which was what rock had claimed) but also because it was based on new relationships between creativity and commerce. (Hesmondhalgh 1999, 35)

Sagaciously, Hesmondhalgh takes pains to point out the contradictory nature of the indie label. The indie movement, started by "a hard-headed network of post-punk companies" (Hesmondhalgh 1999, 35), was a way of combining artistic freedom with the commercial viability of more

mainstream-sounding music. The element that defined it, though, stemmed from fans' and activists' vigorous politicization of 'independence' as a mode of cultural production—in spite of the fact that indie labels were often more exploitative of their artists than mainstream labels (Hesmondhalgh 1999). Before long, 'indie' became a recognizable genre and began to collide with its own success: "As with so many oppositional genres in popular music, then, indie was contradictory: its counter-hegemonic aims could only be maintained, it seems, by erecting exclusionary barriers around the culture" (Hesmondhalgh 1999, 38). This view is echoed by Ryan Hibbett, who claims that:

> Indie rock, it reveals, is a discourse with its own logic and established tropes. The structure of this logic depends largely on categorical binaries: old/new, bad/good, popular/obscure, etc. Success, in the financial and commercial sense, generally lowers the value of the music being discussed … Bands, record labels, and listeners accrue symbolic value by divorcing themselves, or being divorced, from standards of popularity and economic success. The more known something becomes, the inverted logic goes, the less interesting it is (2005, 72).

In the digital game industry, the rise to prominence of 'indie' as a recognizable market sector was a comparatively recent phenomenon. Major studies of the game industry are yet to catch up to the contemporary indie craze (see: Whitson 2012, 126–127): Kerr barely mentions indies in her book, lumping them in with third-party studios and claiming that they are categorically dependent on the whims of publishers to get their games to market—a difficult task, given that publishers are often unwilling to publish titles that compete with their own in-house works (Kerr 2006, 64, 81). Only at the end of her book does she allow indies to stand alone, claiming that "pockets of artisanal development are to be found in the independent or 'indie' game development sector, which produces games and then tries to secure a publishing deal or sell direct to the consumer" (Kerr 2006, 151). O'Donnell's affords a similar paucity of consideration to indie developers: he, too, casts the indie as either excluded from privileged networks of access, or a candidate for wholesale buyout by a first-party manufacturer or publisher (2014, 173–180).

In recent years, a handful of scholars have begun to publish articles dedicated to exploring the rise of indie development. In the case of game development, scholars and practitioners alike are aware of the term's status as a contested, mercurial, and polysemic signifier: 'indie' has come

to refer to a field of heterogeneous—though related—praxis and identity. At most basic, indie developers are those studios who are not owned by publishers, providing them with the latitude to work on projects of their choice and in the manner of their choosing (Ruffino 2012, 107; Whitson 2012, 125). While some developers employ 'indie' as a simple abbreviation of 'independent,' the far more common conception holds that indie studios are typically small (Joseph 2012, 100), have limited budgets, and tend to situate artistic vision and creative autonomy as core elements of their identity (Lipkin 2012, 14; Ruffino 2012, 111). 'Indie' has also been described, at various times and in various accounts, as: a signifier for a loose association of developers who employ 'subversive design tactics' to resist the mainstream game industry's discriminatory and hyper-capitalist norms (Fisher and Harvey 2012, 26–28); as a form of craft (Westecott 2012), and a necessary precondition for the related production of 'artgames'[9] (Parker 2012, 46). In one of the earlier entries on the topic, Orlando Guevara-Villalobos (2011) argues that indie communities play an indispensable role in indie game development praxis:

> Independent game networks and communities have become a key factor in tackling the social dilemmas of the organisational fragmentation, labour flexibility and adaptability to new markets. These communities are organised around the practice of game development and the passion unleashed by the nature of the tasks entailed in it. As any other social group, communities of developers share a series of interests, beliefs, experiences, emotional load and common practices that are self-referenced. Even more, they have become deeply entwined in every single stage of game development. As we will see, places of development converge with communitarian practices, and communitarian events have become spaces that boost creativity, learning and organise actively work time. (Guevara-Villalobos 2011, 2)

Two articles in the 2012 special issue of the *Loading* journal deal with the issue of Indie identity in detail. The first, Nadav Lipkin's *Examining Indie's Independence,* investigates how mainstream co-optation of 'indie,' coupled with the term's slide away from signifying alternative

[9] Parker describes artgames as games which feature "a distinctive or highly stylized audiovisual aesthetic; small (or entirely individual) development teams with identifiable author figures; and an existential-poetic 'point' or 'message' that the player is intended to discover and ponder, however obscure or ambiguous" (2012, 42).

production practices and towards a particular genre or aesthetic, has delimited indie development's ability to protest and challenge the mainstream through production alone. Despite the term's mercuriality and polysemy, Lipkin asserts that tracing the common themes that set 'indie' apart from the mainstream is a critical first step, and can be achieved by tracing commonalities from other cultural indie movements such as indie film or indie music. Accordingly, he claims that indie games are typified by powerful evocations of nostalgia for a bygone era of play, rebellion against unfair mainstream working conditions, use of less advanced development tools, reliance on alternative/digital distribution channels, close relationships with fan subcultures, and a moral opposition to profiteering (Lipkin 2012, 8–14). Notably absent from this list is any dedication to a certain style or aesthetic, but Lipkin argues that the core values of any indie movement inevitably lead to the development of a signature style which, once in place, is ripe for exploitation by the mainstream: "Once a style emerges and displays profit potential, mainstream forces use their resources to emulate the style of indie media production artificially, rather than letting the style emerge naturally from the economics and politics of production at the movement's core." (Lipkin 2012, 16) Damaging though this mainstream co-optation of indie can be, Lipkin concludes by asserting that the true indie 'spirit' is alive and well in games that are explicitly linked to the identity of a single auteur-developer (2012, 20–21).

In *Narratives of Independent Production in Video Game Culture*—one of the articles contained therein—Paolo Ruffino (2012) critiques the concept of independence as it appears in popular discourse around game development. To him, referring to a certain type of game development as 'independent' presupposes forms of production that are 'dependent,' and that the distinction between the two is often conceived of as emerging from the possibility spaces opened up by new technologies. He goes on to argue that in spite of these discourses of emancipation and intimacy, independent game development is often inextricably caught up in the 'dependent' practices that becoming an indie developer supposedly frees one from. Moreover, the overarching narrative focus on the overworked individual developer further enmeshes indie development with the new capitalist order — the only freedom gained by blurring the distinction between work and life is a loss of stable employment at a AAA firm and a corresponding assumption of personal risk and the possibility of failure (Ruffino 2012, 106–116). These narratives only constitute a single interpretation of what independence could mean for game developers: "narratives of co-operation would constitute a different way of conceiving of game design. No more would the game be

considered the result of the work of an individual genius who puts his or her 'life at risk' in creating a new product, but rather the outcome of a collaborative project, where the necessary skills are learned and shared among participants" (Ruffino 2012, 118).

At the very outset of the special issue, Bart Simon writes that "there is no point in seeking a formal definition or classification of 'indie games' any more than it has helped us to try to define 'video games.' The best we can do is follow, articulate, and perhaps join in with, other actors' attempts to do work with the concept. Game designers, producers, entrepreneurs, artists, journalists, reviewers, curators, educators, hackers, makers, and gamers all mobilize the term. Our chief task, as we shall see with the papers in this special issue, is to figure out what they are trying to do with it." (2012, 2) A logical first step in following those who do work with the term would be to ask them describe it. When I asked Execution Labs founder Jason Della Rocca for his thoughts on indie identity during a one-on-one interview, I was taken aback by his insistence that he draw his answer directly into my notebook. His sketches were done in two parts, with a pause between them so he could explain what they meant.

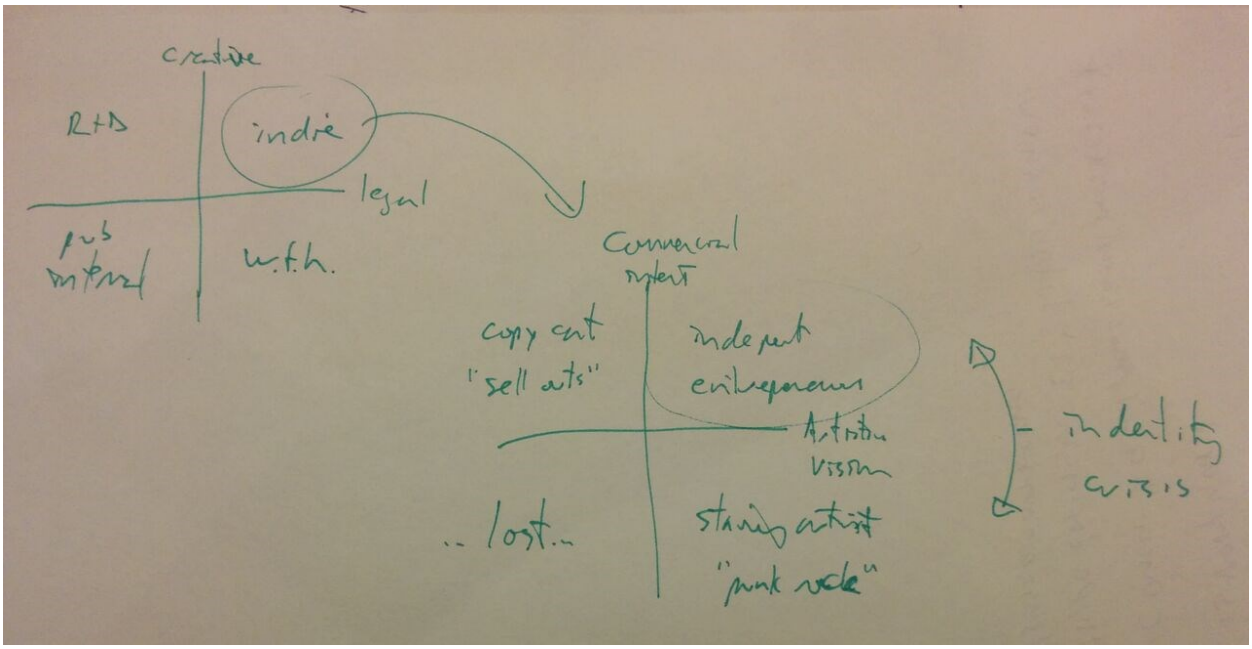

Figure 1. Jason Della Rocca's Indie Typology Notebook Sketch

The first graph, seen on the left-hand side of the photo above, distributes most developers along two independent axes: degree of creative freedom in the y-axis, and degree of legal freedom

in the x-axis. Corporation-centric and publisher-centric conceptualizations of the industry—O'Donnell (2014) and Kerr (2006) being good examples here—fall largely into the bottom-left quadrant, which Della Rocca labeled 'Publisher and Internal.' Studios with very little creative or legal freedom generally tend to be internal teams, wholly owned by—or contracted to—a major publisher such as Ubisoft, EA, Warner, and so on. Both the creative and the legal decision-making is done at a very high level, and almost entirely by echelons who do not involve themselves with actual production labour; developers follow orders from on high. 'Work-for-Hire' is the term Della Rocca gives to teams with a greater degree of legal freedom, but with little creative freedom. These teams are free to sign contracts with whomever they please, but are generally constructed to specialize in making games for media conglomerates and IP holders who do not have an internal interactive media department. These teams generally survive by developing television spin-off games, movie games, or by porting games separately developed by a different studio to other platforms.[10] Teams with near-complete creative freedom and little legal freedom are a relatively rare beast. When, on occasion, a major publisher sees fit to develop a new IP from the ground up, a proven team of elite developers might be given a generous budget, wide operational latitude, and a time frame in which they're expected to come back with something innovative and ground-breaking. Della Rocca labeled these teams 'R&D teams,' and noted that they are rare, ephemeral, and often established with a technological goal in mind, such as the development of an in-house engine or a special piece of proprietary technology to be featured by a custom-purpose game developed in parallel.

In Jason's view, the final quadrant—comprised of those teams who enjoy wide creative and legal freedoms—comprises 'indieness.' The indie quadrant can be further divided into four sub-quadrants, aligned along two different axes which do not cleanly fit into the schema of the original grid. In this new sub-grid (pictured on the right-hand side of the image), indies are mapped according to their artistic vision, with the most intrepid teams placed on the right-hand side, and their commercial intent, with the business-oriented teams closer to the top. Della Rocca dismisses the teams with no artistic vision as 'Copycats,' 'Sellouts,' or simply 'Lost.' The final two categories, found on the right hand side, share a special relationship with one another: To Della

[10] The vagaries of which are covered by O'Donnell, who explains how closed console architecture causes innumerable headaches for the studios tasked with moving games from one platform to another. (2014, 225)

Rocca, those teams that are artistically visionary yet unwilling or unable to simultaneously pursue business-minded goals can be deemed 'starving artists.' The same team, but with business acumen and 'hunger,' would be considered an 'independent entrepreneur.' Because Execution Labs subsists solely on entering into business relationships with indie teams poised for future profitability, Jason unambiguously claimed that the final category of teams was the 'most interesting.' That being said, he went on to explain that the dialectic between artistic vision and entrepreneurial intent is where the indie 'identity crisis' emerges:

> **Jason:** This here I think is where we see the identity crisis. … It's the sense that, as an indie, clearly one of the markers is that I'm innovating, I have this creative freedom, but then as an entrepreneur that just got funding, I can't just be this kind of 'I'm doing it for the art.' I have to be an entrepreneur, and I think this is where you get into this tension of this romantic vision or this symbol of what it means to be indie. And where you have a dispute over if you make too much money, you're not indie. This is the tension of the identity.

Although artistic and entrepreneurial motivations are often cast in opposition to one another, Execution Labs is experimenting with ways to productively sustain the tension between them. How they do this, and how the tension between artistic vision and entrepreneurial intent manifests in developers' conceptions of themselves and the games industry, will be explored further in Chapter 5.

Conclusion

This chapter provided brief overviews of Neff's *Venture Labour*, O'Donnell's *Developer's Dilemma*, and some of the extant scholarly work on 'indie' production in both the music and digital game industries. Throughout, 'indie' as a term was positioned as a contested signifier which can carry contingent meanings for various people and in various contexts. As will be discussed in the latter portions of this thesis, Execution Labs is renegotiating what possibilities being an indie developer carries. As such, XL is positioned along a fault line in indie identity—a schism which it must constantly account for in its relationship to pedagogy, practice, recruitment, and community-

building. The next chapter—in the course of introducing Execution Labs, its staff, and the winter 2015 cohort—will begin to describe and explore these tensions.

CHAPTER 2 — EXECUTION LABS

This chapter will describe Execution Labs (XL) as I encountered and experienced it by giving an overview of the people, practices, values, and organizations which comprised Execution Labs for the duration of my time there as an embedded ethnographer from November 2014 to June 2015. It will start by situating XL in the context of the city of Montreal as a global digital game development hub. The two sections following will provide brief biographies of the major personalities involved in XL's day-to-day operations, comprised of the Executive team and the on-site development experts. This chapter will conclude by detailing XL's recent history, business model, and participating teams in the lead-up to the winter 2015 cohort.

The Montreal Game Development Scene

In "The Toronto Indies: Some Assemblage Required," Daniel Joseph (2012, 96–97) presents a case study of the Toronto indie game development scene. Through the lens of assemblage theory (see: DeLanda 2006; Taylor 2009), Joseph identifies two salient dynamics in Toronto game development: Canadian cultural policy, and urban geography (2012, 96). The former dynamic, which Joseph situates at the level of the 'organizational assemblage,' takes the form of the Ontario Media Development Corporation (OMDC), which administers funding, tax credits, and other business support with the aim of stimulating the growth of Ontario's media sector (2012, 97–98). The latter dynamic takes the form of Toronto as a geographical entity which, in the absence of a big-studio system, allowed developers to find one another, collaborate, benefit from government initiatives, and establish a 'community of practice' (Joseph 2012, 100–101): "there is no 'independent' community here without a city-sized assemblage capable of fostering close ties between organizations and persons" (Joseph 2012, 101–102).

Despite constituting a very different development terrain, the assemblage of Montreal plays a similar role. Although industry data points to the importance of the Quebec game industry on a national and international level (Game Job Hunter 2015; French 2007; "2014: Essential Facts about the Canadian Game Industry" 2014), an anecdote from Eastern European developer Anton helped illuminate Montreal's hub effect:

> **Anton:** Being in Montreal, honestly, if that kind of fills the previous question—one of the biggest shocks; it might sound a bit cocky, but I was

> shocked how people here don't know how good they have it in terms of jobs in games. Every single corner I walk, there's someone working for Behaviour, for Ubisoft, for Minority. I talked with a person 10 days ago: 'I'm an animator for *Assassin's Creed*, but it sucks, it's bad, my heart burns for sketch art, I want to quit my job.' You're an animator for *Assassin's Creed*. 199% of people I know would kill for a job title like that.

The above quote hints at the density of game jobs in the city of Montreal, but also that the city provides the possibility space within which developers can conceive of and enact plans to leave their positions at a mainstream developer and work on smaller projects. Kerr posits that the consolidated dominance of large corporate game studios can give rise to trends which oppose said predominance: developers who feel that corporate structures are stifling their creative freedom will often quit their jobs and found a new start-up studio together (2006, 68). Trevor Barnes and Neil M. Coe describe this effect, and the resultant inter-studio migration of developers, in the context of Vancouver, B.C. as a media cluster:

> Not all the DSI employees acquired by EA Canada were happy with the new arrangements, however. The same year that DSI was bought out, a disgruntled group of them formed a new firm, Radical Entertainment. But within six years some of those same employees were moving on again, starting yet two more companies, Barking Dog and Relic (both in 1997). This process of new firm creation through splitting we will call 'firm fission': one firm begetting another firm through the mechanism of employees leaving and setting up a new company. (Barnes and Coe 2011, 8)

Barnes and Coe go on to claim that the presence of EA Canada—one of the largest development studios in the world at the time—was critical to sustaining 'firm fission'. EA Canada provided a constant source of new digital game entrepreneurs, helped convince developers and investors from elsewhere to relocate to Vancouver, and simultaneously sustained start-up studios by generating subcontracting opportunities (Barnes and Coe 2011).

In popular articles on the subject (Kelly 2014; Van Praet 2012), the arrival of Ubisoft and Montreal's resultant rise as a global hub for game development has been attributed to the comparatively early adoption of a comprehensive interactive multimedia tax credit scheme under which the provincial government covers 37.5% of all development-related labour costs

(Investissement Quebec 2015). While certainly helpful, in 'The Montreal Indie Game Development Scene… Before Ubisoft,' Jason Della Rocca addresses how pre-Ubisoft Montreal indie developers are often neglected in discussions about the emergence of a wider game development scene in the city (2012, 130). Ubisoft was (and, arguably, still is) the highest-profile international development studio to have an office in Montreal, but Della Rocca contends that Ubisoft cannot be credited with single-handedly sparking a popular and governmental interest in game development. Rather, the Montreal indie development scene actually predated the arrival of Ubisoft in 1997 and Della Rocca suspects that the presence of the Montreal-Quebec indie scene was a necessary precondition for Ubisoft to set up shop in the city (2012, 132). The emergence of robust state support for game development in the form of the multimedia labour tax credits regime—alongside the pool of talented labour that grew to meet the needs of the new major studio in town—attracted additional major studios to the city. This, in turn, led to a surge of small-to-medium studios, many of whom could trace their roots (or at least those of their founders) back to pre-Ubisoft indie studios (Della Rocca 2012, 130). Della Rocca argues that this phenomenon—which he terms "the catch-22 of clustering dynamics" (2012, 130)—means that other cities' endeavours to jump-start a local game development scene where none currently exists by inviting Ubisoft to set up shop are likely doomed to fail (2012, 130).

At the time of its founding in 2012, Execution Labs was the first of its kind; other business incubators have played host to game development companies in the past (Jason gave Y-Combinator and Founder Fuel as examples in conversation), but Execution Labs was the first to focus specifically on game development. Although the XL model has undergone some change, expansion, and bifurcation, the core premise has persisted: promising teams of indie developers (typically consisting of less than 7 developers) are recruited into a 'cohort' of between 3-6 teams. These teams are invited to relocate their business and development operations to the Execution Labs offices for the duration of the cohort (initially 9 months, later 3 months). While there, teams have access to the XL executives, internal experts, external mentors, production funding, development software licences, the community of cohort teams, and the wider Montreal game development scene (see: Della Rocca 2012). To date, all of the cohorts have been structured around a single central goal: providing teams with the knowledge, practice, connections, support, and visibility necessary for them to grow into successful, sustainable independent development studios.

‘Who’s Running the Asylum?’[11]

The day-to-day functioning of Execution Labs is overseen by a team of executives who also serve as networkers, managers, organizers, and public faces for the company. The makeup of the executive team has shifted somewhat since the founding of Execution Labs, but now includes three individuals, two of whom call Montreal home. The one who does not, Keith Katz, is located in San Francisco and is listed as the ‘Business Chief’ on the XL website (“Keith Katz | Execution Labs” 2015). During my short time at Execution Labs, Keith flew up to be physically present on four occasions,[12] two of which were for the Grand Opening and Final Showcase parties which bookended the winter 2015 pre-production accelerator cohort. Even from San Francisco, however, he was an active contributor at almost all the business planning meetings both for teams and XL alike; physical proof of this came in the form of several ‘snowball’ USB microphones which were scattered around the XL offices to better facilitate skype-based conference calls. Whilst in San Francisco, Keith’s physical and relational proximity to the main campuses of Google, Apple, and countless other Californian game and tech companies proved invaluable time and time again; most notably, his influence secured preferential online featuring in both the App Store (iPhone, iPad) and Google Play Store (all Android devices) for mobile games released by XL teams.

Behrouz Bayat—the ‘Operations Guy’—describes himself as the person who takes care of all the serious business, “also known as the ‘boring stuff’: finance, legal, IT, and everything else that falls under the Operations umbrella” (“Behrouz Bayat | Execution Labs” 2015). While this may be true—Behrouz was the point person for XL’s business elements, as well as for teaching the cohort’s teams how to run a business—the true breadth of his role was far more extensive… and fun. With Keith in San Francisco and Jason frequently away at out-of-town conferences for days at a time, Behrouz was arguably the most regularly involved of all the executives in day-in-day-out face-to-face interaction with the teams. Similarly, of all the executives, I interacted most frequently with Behrouz. Towards the beginning of my involvement at Execution Labs, he and I carved some time out of our respective schedules to overhaul the Execution Labs sound system with a set of shiny new professional audio monitors (I was deeply thankful for the opportunity to

[11] This is the title used on the website (“About | Execution Labs” 2015)

[12] At least that I was aware of – there were times he was only in the office for one day at a time, sans fanfare. It is possible that he was present more frequently than this, but that he was in-office on days that I was not.

put my certificate in music production to use). Behrouz comes from a background in management and programming, and has held positions at a number of Montreal studios, including Gameloft and Behaviour Interactive ("Behrouz Bayat | Execution Labs" 2015).

Even amongst the comparatively lighthearted, tongue-in-cheek timbre of XL's team bio page, Jason's blurb stands out for a pair of related reasons: he lists his job title as "Indie Evangelist,' and describes himself as "arguably the most connected person in games" ("Jason Della Rocca | Execution Labs" 2015). Going on reports from the team members at Execution Labs, as well as my own observations, his claims are not overstated. Even the public elements of Della Rocca's history as a game development expert and advocate are too numerous to comprehensively impart here; some of his more noteworthy CV lines include advising the ICT Practice of Foreign Affairs—Trade and Development, and nine years serving as the Executive Director of the International Game Developers Association ("Jason Della Rocca | Execution Labs" 2015). His time as an outspoken industry advocate, in particular, has garnered a wide-reaching network of contacts and a not-insignificant sum of lingering of goodwill; a karma surplus, if you will. As will be seen below, Jason's network has proven vital both in discovering potential new Execution Labs recruits, but also in providing additional value to Execution Labs as an incubator.

Voltron and Voltron University

Early on in my involvement with Execution Labs, I started hearing the executives making mention of an anthropomorphic 'Voltron.' At first, this turn of phrase was more than a little confusing; despite having never watched the television show as a child (the end of its syndication predated my birth by three years), I was still aware that 'Voltron' referred to the agglomeration of spacefaring combat vehicles that were capable of assembling themselves into the titular humanoid robot. Going purely on memory, one of the earlier references to Voltron arose when the Execs were discussing the optimal size of the upcoming cohort—they wanted it to be large so as to maximize collaborative potential and external visibility (which they referred to as 'optics'), but not so large as to overburden 'Voltron.' After the second admissions interview, I decided to speak up and ask for some clarification on what, exactly, the Execs were referring to. As it turns out, 'Voltron' was the incidental nickname that had unintentionally emerged as the official title for the group of in-house experts who would be joining Execution Labs for the upcoming January 2015

cohort. Each of the experts were specialists in a particular field that the Execs wanted incoming teams to learn about and focus on. Astrid Rosemarin—'Community Developer' extraordinaire—is Execution Labs' resident social media guru. For advice on optics, outreach, running a solid Kickstarter campaign, building a fanbase, writing funding applications, and just about anything else involving the XL teams interacting with the outside world, Astrid was there ("Astrid Rosemarin | Execution Labs" 2015). Lysiane Charest is listed as the 'Master Data Cruncher' on the Execution Labs' website, but was referred to as the 'Analytics Expert' in common parlance around the offices. Lysiane's inclusion in Voltron represents the recognition that in the game industry as it currently exists, accruing detailed statistics about who is using your game, for how long, when, and how much they're willing to pay for certain things is of the utmost importance for start-up teams—especially those focusing on free-to-play, freemium, and ad-supported titles downloadable titles. Her role was to teach teams how best to implement and collect data from embedded game analytics software. Pejman Mirza-Babaei, who gleefully describes himself as a 'Doctor of Video Games,' is listed on the website as XL's 'User Research Director' ("Pejman Mirza-Babaei | Execution Labs" 2015). In practice, his primary role was to establish an understanding and culture of frequent in-office public playtests at Execution Labs. Under his tutelage, teams were encouraged to rapidly test new features, updates, and idea prototypes as they emerged during the development process. Derek Elliot is XL's 'Product Director' ("Derek Elliott | Execution Labs" 2015). The polysemic nature of this title is mirrored by his multifaceted role within Voltron—as veteran producer from the games industry, he handled production methodology, brand identity, brainstorming, user experience, and production pipeline.[13]

Together, the four Voltron experts represented a side of video game development that is conceptually suborned to 'real' development labour. In the mainstream industry, creative labour (art, engineering, design) has often been cast in opposition to business concerns (marketing, management, community development): in larger companies, tales of clashes between marketing departments and developers abound, and 'business concerns' are often cited as the reason for rushed schedules, lack of product cohesion, and arbitrary game cancellations (Kerr 2006, 93–96;

[13] Production Pipeline, arguably the least understandable of the terms I ascribed to Derek's position, refers to "the set of technologies, standards, and practices through which art assets and design data flow into the underlying game code" (O'Donnell 2014, 72)

O'Donnell 2014, 150–153). Because many indie developers are escapees from the AAA industry (where studio scale alone keeps creative labour separate from business labour), few of them are veteran studio managers or businesspeople. As Execution Labs is in the business of accelerating indie teams, it falls to Voltron and the Execs to teach indies what they need to know to survive in a hostile, overcrowded market where the attention economy (Banks 2013, 140–142) is hotly contested; the composition of Voltron speaks volumes about where Execution Labs feels pedagogy is most needed.

At the time of my involvement at Execution Labs, Voltron was an untested idea. The upcoming cohort was to be the first one which would feature Voltron as a distinct sub-organization. Voltron was responsible for developing and delivering a curriculum of both game development ('GameDev') and business development ('BizDev') lessons—with a focus on the latter—to all of the teams in a weekly format entitled 'Voltron University.' At the outset of the program, the Voltron University sessions were compulsory for all Execution Labs cohort members, were presented in the form of traditional university lectures, took place over the course of two hours every Monday afternoon, and touched on four different (and loosely related) topics—one for each of the Voltron members' areas of expertise. This format did not last very long—it was obvious that any given Voltron U lesson were only relevant to a minority of the cohort developers. The majority of the artists, for instance, had very little to gain from hearing about analytics implementation and analysis. Even for those who were interested in most of the topics presented, the two-hour format and sheer volume of information presented made it very difficult to follow and absorb. Moreover, cutting in excess of two hours' development time out of each and every developer's weekly schedules—on top of other XL-specific time commitments over and above development—constituted an untenable imposition. Before long, the monolithic lecture format had given way to a custom-tailored series of seminars for which attendance was optional, but strongly recommended for at least one team member—usually the developer whose skill set was most germane to the topic at hand.

Beyond Voltron U, the Voltron experts were generally present in the Execution Labs offices for standard studio hours (Monday-Friday, 10am-6pm) and were available for one-on-one (or, more often, 1-team-1-voltron) consultation. Much like the executives, the Voltron experts would also make daily rounds of the XL offices, checking up on teams' needs, progress, morale, and future plans. Not all teams were at a stage in production where they could make full use of

Voltron's expertise—this was especially true for teams who were early in preproduction and, thus, had no game to playtest or to which they could add analytics plugins.

Gameplay Space

My involvement at Execution Labs began at an auspicious time for the company. For the first years of its life, XL had been located in an office unit located on St. Laurent Street in Montreal's Plateau District—not far from the Ubisoft, Eidos, and Warner Brothers locations. At this location, Execution Labs was synonymous and coterminous with the space it inhabited, but it was also plainly obvious that the space was not large enough to accommodate the executives' vision of what Execution Labs could and should become. In the fall of 2014, it was announced that concurrently with the start of the newly-minted Pre-Production Accelerator and Finishing Fund programs, Execution Labs would be moving into a newly-refurbished office space near Station Place-Des-Arts in downtown Montreal.

Figure 2. Execution Labs and Gameplay Space, as of January 26th, 2015

In terms of serviceable floor/desk space earmarked for resident game development teams, I estimate that the new space was more capacious than the old space three times over. The entire

Execution Labs operation only occupied about 1/3rd of the space at most—not counting shared common areas such as the kitchen and meeting rooms. The remainder of the floor was reserved for 'Gameplay Space' (GPS)—an organization XL established in collaboration with Montreal indie developers and Concordia University's Technoculture, Art & Games Lab ("About" 2015). The portion of the office devoted to Gameplay Space was to be rented out to indie developers who wanted secure desk space, storage, and internet access at a reasonable monthly cost. The Gameplay Space founders hoped that allowing Execution Labs cohorts to cohabit a shared studio space with developers from the Montreal indie scene would foster an environment of spontaneous collaboration, sustainability, resource sharing, and knowledge dissemination ("About" 2015). Although Gameplay Space was only sparsely inhabited as of June 8th, 2015, I am aware of at least two XL cohort teams who plan to begin renting desk space from GPS as soon as the next XL cohort begins.

'The Cohort'—From Incubator to Pre-Production Accelerator

When Execution Labs was first founded, the executive team envisioned an incubator which would specialize in helping small groups of developers working at mainstream studios who—for motivations as varied as ambition, artistic drive, autonomy, or boredom—were thinking of quitting their jobs and starting a studio together:

> **Jason:** The biggest distinction is, in the original model, it was largely teams coming together to try being indie. They would quit their jobs at Ubisoft.
>
> ***Pierson:*** *As part of the process of coming to XL — it was almost like you start the day that you leave Ubisoft?*
>
> **Jason:** Yeah. Exactly. Or Ludia or wherever you were. Not everybody was like that, but most of them were. You're buddies, you've always had this dream, you were always talking about it at lunchtime, but ah, it's scary, and you don't know how to be a businessman or whatever. And here's XL making this amazing offer to pay funding and give you all these resources and connections. We make the jump less scary.

This original cohort system was nine months in duration—six months of incubator followed by three months of accelerator—and paid each team member a fixed monthly

development wage in addition to $20,000, split between the whole team, for discretionary spending and user acquisition. In return, Execution Labs would receive a 20% non-voting equity stake in the newly-created company. My involvement with Execution Labs, beginning in November 2014, marked the beginning of the new 'Pre-Production Accelerator' (PPA) program. One of the most notable differences between the two systems concerned the status of the teams XL was seeking—in the old system, XL was part of the team formation process, whereas the new system only accepted teams that had already begun independent development activities of their own volition:

> **Jason:** Now, all of the teams are on a journey. They started the journey before we ever talked to them, before we ever got to them. It may not be pointed in the exact right direction, but they're going somewhere. And then we're joining them in that journey. We're believing in the journey they're on, and we say 'let us fill up your gas tank a bit, let us coach you a bit, let us help your aim a little bit, and get you through your journey better, more effectively, more successfully, whatever. But they're on the journey. I think that changes everything; we're accelerating them on the journey they're already on.
>
> ***Pierson:*** *That's the most salient thing for you, then? XL not as a concatenator of units but as a finder of people that have already…*
>
> **Jason:** I think so. This next cohort,[14] we may have a group like that which are going to jump from Ubisoft, maybe. I'm not saying I'm against that, but I prefer taking the team that's on the journey; that has the confidence and craziness to quit their jobs last year, and as they're going, they're like 'You know what? We could probably use some help and some connections,' and then we convince them that we're the right partner. I think it just dramatically changes things.

In addition to focusing on pre-existing teams with a proven track record of working and releasing games together, the new Pre-Production Accelerator program made some significant changes to the timing, funding, and equity formulae: First, the PPA program was only three months

[14] This interview was conducted on May 5th, 2015, two months before the 'next cohort,' which began on July 6th, 2015. I was not involved in the July 6th cohort in any research-related capacity.

in length. Second, Execution Labs no longer earmarked any of the funds provided, instead letting teams decide how best to allocate available monies, albeit under the close guidance of the XL Execs and Voltron. Teams could request anywhere from $0 to $50,000 of financial assistance from Execution Labs—for every $1000 taken, XL would increase the baseline 6% equity share by an additional 0.16% to a maximum of 14%,

Although the PPA was ostensibly intended for teams in the earliest stages of prototyping and development, in practice, the first PPA cohort consisted of teams at wildly varied stages in the development process. Going in, the expectation was for teams to have finished a playable prototype or demo by the end of the cohort which they could then use to apply for funding (from the Canadian Media Fund, for instance), start a crowdfunding campaign (on platforms such as Kickstarter), or shop the prototype around to publishers in the hopes of securing further development funds.

Recruitment for the PPA took the form of online advertisement through the XL website, word of mouth, and direct contact from the Execution Labs Executives. During a private roundtable I was fortunate enough to have been invited to, the topic of recruitment came up: I wanted to know what percentage of the applicants for this cohort had been contacted by Jason prior to the submission of their application. Jason replied that it was about 50%—the other half of the teams who applied had done so without any direct contact or encouragement. That said, all of the teams who were selected for the program's final cut were amongst who Jason had contacted and—in his words—'courted.' In this way, Execution Labs' recruitment model might not be applicable to other groups who are attempting to create or bolster indie development scenes; without the XL staff's keen nose for talent and ability to be in the know about most of the developments in the industries (AAA and Indie alike), it might be very difficult to act as a 'node' in the same way XL does.

The Teams

For the cohort I was involved with, six teams were offered placement in the program out of a total of ten teams interviewed. Of them, five accepted the offer from Execution Labs, with the final team bowing out, citing the equity share XL would take as being too costly to justify their

participation in the program. Thus, the inaugural Execution Labs Preproduction Accelerator[15] would feature the following teams:

1. **Periapsis**: a 5-person team hailing from Eastern Europe, whose '30-second brawler' game was designed to be 'platform agnostic,' allowing those playing on phones, tablets, consoles, and computers to compete in the same arena, on the same footing. Only 3 of the team members were able to relocate to Execution Labs for the duration of the accelerator;
2. **Clairvoyant**: a team of (initially) four ex-AAA industry veterans from Montreal working on a Japanese-style Tactical Role Playing Game designed to harness the physicality and indeterminacy of customizable sets of dice and decks of cards;
3. **Off-Grid**: a team of three Montreal developers (later expanded to five) whose success in a recent game jam competition for a famous YouTube personality landed them the deal of a lifetime. Their game is designed to cater to said YouTuber personality's engaged community of fans by making frequent reference to the many tropes, memes, and in-jokes that his channel has spawned;
4. **Nightwatch**: A Quebec City-based team of experienced developers seeking to prove that a group of six well-managed, overtime-averse independent developers are capable of developing games that compare favourably to similar titles released by AAA teams 500 people strong — their open-world 'Adventurer Life Simulator' project, if completed, will be the exemplar of this ethos;
5. **Stone Boat**: A group of developers from Eastern Europe whose experiences under and in the aftermath of Communism in their country served as the inspiration for their '2.5 Dimensional'[16] atmospheric side-scrolling puzzle-platformer game. Only part of their team was able to relocate, with the rest continuing to operate from Europe during the PPA program.

[15] Hereafter abbreviated as 'PPA'

[16] 2.5D refers to the use of 3-Dimensional graphics in a game that allows the character to move left, right, up, and down, but doesn't permit free movement in the Z-Axis

Conclusion

At risk of gross understatement, Gameplay Space was a busy place. As a constant hub for guest visits, events, meetings, presentations, lessons, and innumerable impromptu gatherings, I was constantly challenged to make snap decisions about what to participate in and how to situate myself. I did everything in my power to be as available and observant as possible, but it was inevitable that I would miss out on many of the important goings-on. Even so, by the conclusion of my involvement in June 2015, I had managed to assemble a voluminous collection of field notes, observations, recorded audio, video, and email correspondence—far too much to properly detail here. Consequently, both the above description and this thesis draw upon only a small portion of the information I gathered, events I observed, and people I spoke to whilst conducting this research. The portions of my ethnographic work which do not feature in this thesis will not, however, go to waste; my involvement at Execution Labs was part of a larger research project which had already been working with Execution Labs for two years. The data I gathered will contribute to their future research conducted on the subject, as well as mine. In next chapter, I will describe how I approached my role as XL's embedded ethnographer in conversation with the other Execution Labs researchers and their past work.

CHAPTER 3 — METHODOLOGY, REFLEXIVITY, AND ACCESS

It seems fitting that a salient portion of this thesis focuses on the formation, strengths, and utility of community groups; my role in this research project—and, by extension, this thesis—was a product of my participation in a community of researchers operating out of Concordia University's mLab and Centre for Technoculture, Art and Games. In November of 2014, I was put forward by Dr. Bart Simon and Dr. Jennifer Whitson as a potential candidate to continue the field work portion of their ongoing study into indie developers at Execution Labs. Owing to the presence of the other researchers, my methodological approach to the study was developed as a joint effort between Dr. Simon, Dr. Whitson, and myself. In this chapter, I will describe my approach to the fieldwork, as well as the thought and conversational processes which informed my approach. The first portion of this chapter is devoted to situating my approach in pertinent works on ethnographic methodology. The latter half of this chapter is broken down into six sections, each of which is devoted to how I approached a particular type of fieldwork site or context.

Taking the Ethnographic Plunge

A significant section of Boellstorff et. al.'s handbook on ethnography and virtual worlds is devoted to emphasizing the importance of extensive and thoughtfully-planned research approaches; the authors of the handbook speak at length about the process of selecting research questions, deciding on a group to study, and determining the scope of the study (2012, 52–61). For better or for worse, my introduction to the practice of ethnography precluded any such purposeful research design on my part. When I was approached by Dr. Bart Simon about the possibility of joining the Execution Labs ethnography project, Dr. Jennifer Whitson had already conducted two years of study on the labs; she had intended to continue the project until she was fortuitously hired away and had to find a replacement. Commensurately, the XL leadership had been so impressed by her involvement that they pressed for the opportunity to continue their research partnership with Concordia University. I was offered a position as Dr. Whitson's replacement; despite never having conducted work of this sort before, I leapt at the opportunity.

The net effect of my sudden introduction to an extant project meant that the answers to Boellstorff et. al.'s preliminary questions had been largely pre-ordained. Alongside some germane academic literature, I was counselled to jump into the work with gusto, attending as many

meetings, events, and functions as possible; the main research questions, I was told, would emerge as part of a larger process of pattern recognition that would develop in conversation with the body of work Dr. Whitson had already conducted. Conveniently, the very structure of the Execution Labs accelerator program took care of most of the scoping and grouping issues Boellstorff et. al. hint at (2012, 59–61). Resident teams are brought into the XL system in batches and physically inhabit the space for a predetermined period of time, providing researchers with a clear sense of segmentation and separability between the cohorts. This is not to imply that I approached the project with a myopic focus on the cohort proper. Rather, my research activities bled over the program's established boundaries; my fieldwork commenced alongside the beginning of the admissions interview process in November 2014, and ended with a series of post-mortem meetings and interviews in May-June 2015.

In contrast to the significant body of solid groundwork that had been done prior to my joining the project, when it came to determining, executing, and tweaking the methodological particulars of my involvement, I was largely left to my own devices. This being my first encounter with the practice of ethnographic research, discovering appropriate or expedient approaches was a process of trial-and-error. Celia Pearce (2009, 196) borrows from Edward Shils (1957) to describe this process as one of learning whilst one stumbles, and stresses the importance of affording one's missteps full shrift so as to better aid the development of quantitative methodology writ large—a call I aim to heed throughout this thesis.

Collaborative Ethnography

Before delving any more deeply into the specific data collection processes I employed, I'd like to devote some thought to the uncommonly large cast of researchers directly involved in this project. By way of an example, reading about the experiences of other ethnographers (Banks 2013; Malaby 2009; O'Donnell 2014; Boellstorff et al. 2012; Pearce 2009) highlighted the very personal relationship between researcher and data collection. Scribbles, symbols, quotes, and snippets of text which only take on meaning when interpreted through the memory of someone familiar with said passage: all of these serve as a kind of symbolic shorthand that ethnographers can use to quickly convey nuanced, messy, polysemic ideas, preserving them for later use. Although my notebook proper does contain the occasional cryptic passage, I opted to render most of my field

work in such a way that it would be at least somewhat intelligible to an informed reader. Though it may have slowed down the process of note-taking in the field, this protocol of mine was designed to allow typed transcriptions or pictures of the handwritten text to be efficaciously sent along to my co-conspirators, Dr. Jennifer Whitson and Dr. Bart Simon.

Musing on this, the term 'Collaborative Ethnography' jumped into my mind. As luck would have it, I rapidly discovered that others had already written works that addressed this term by name, but different works had wildly different interpretations of what it meant. One of the two interpretations I uncovered (Lassiter 2005, 5–7) casts collaborative ethnography as a new form of anthropological practice that seeks to meaningfully resolve the disparity inherent in the "hierarchical arrangement of discourses" (Clifford 1986, 17) of what remains a "deeply colonial academic discipline" (Deloria Jr 1997, 211). The other sense in which one might interpret the phrase 'Collaborative Ethnography' would more closely resemble what I initially had in mind. Reuben A. Buford May and Mary Pattilo-McCoy define collaborative ethnography as "studies in which two or more ethnographers coordinate their fieldwork efforts to gather data from a single setting" (2000, 67). May and Pattilo-McCoy go on to highlight three salient affordances of collaborative ethnography: "In collaborative ethnographies, (a) important details from the field are supplemented, (b) inconsistencies in data are brought to the fore, and (c) the influence of the ethnographers' social identities is recognized" (2000, 83). Although May and Pattilo-McCoy are primarily speaking to studies where two or more ethnographers are working side-by-side simultaneously, I feel that the purview of their article extends to those embedded ethnographic projects where the position is passed along from one researcher to the next.

In addition to the obvious benefits of having multiple minds working through problems together, the watchful presence of other researchers on the project prompted me to adopt useful research practices and habits that I may not have otherwise bothered with. In recent years, 'working out of the cloud' is a term I've repeatedly heard to denote using rapid, automatically-synching file sharing programs as one's primary method of data storage. At the very outset of my involvement with the project, I decided that the most effective way to share the results of my field work in real time and to receive rapid feedback from my mentors would be to set up a Dropbox folder for all of the pictures, transcribed notes, and audio files the project would produce. I provided Dr. Whitson and Dr. Simon with permanent access to the Dropbox, and endeavoured to conduct as much of my work 'out of the cloud' as possible. My first step after recording field notes would be

to transcribe them and flesh them out so as to be readable to a third-party observer, and then to upload the resulting time-stamped document to the Dropbox. So the same with audio files, pictures, builds, and other data from interviews or field recordings. In some ways, my commitment to 'working out of the cloud' emerged from my role as a proxy researcher; a replacement brought in to continue collecting data for a project in-process.

The collaborative nature of the project also prompted me to adopt an especially careful approach to the process of researcher acclimatization. Casey O'Donnell poignantly describes the initial frictions embedded ethnographers may encounter: "other developers in the company feared I represented someone determining just how much time they were wasting or whether they were expendable. For people such as that, I was a threat and was kept at arm's length." (2014, 11) Creating a bond of trust, respect, and rapport between researcher and informant is of vital importance (Pearce 2009, 198–199) and a crucial preliminary step in this process is convincing informants that the researcher is not a spy or a corporate mole. In most cases, a combination of detailed ethical consent forms, discretion, and good faith seems as if it would be sufficient, but my position was complicated somewhat: my recorded observations were, in fact, destined for more pairs of eyes and ears than just my own. Rather than lie or neglect to mention the presence of the other researchers, I attempted to engage in 'self-jesting' (O'Donnell 2014, 10) by claiming that I was, in fact, reporting back to 'dark, shadowy university overlords.' The attempt at humour was not lost on potential informants, and seemed to establish me as an approachable and forthright individual. Dr. Whitson's presence could also be felt during the interview process; in the course of each interview, I would casually imply that Jennifer would, at some point, be listening to the resulting audio file by asking if my informants wanted to say hello to her:

> ***Pierson:*** *You can say hello to Jen! She's probably going to be listening to much of this…*
>
> **Jason:** Hi Jen! We like Pierson, but we miss you, Jen!

Both during the project and since the formal cessation of my research activities at XL, Voltron and the executives have repeatedly expressed their eagerness to carry on playing host to an embedded ethnographer. Speaking from personal experience, the myriad tasks one must complete and the esoteric practices one must familiarize oneself with would have likely represent a daunting obstacle had I not benefitted from the groundwork and guidance of my mentors. In this

way, as long as a position for novice researchers exists at Execution Labs, the XL project will represent an indispensable site for collaborative ethnographic pedagogy. Continuing to extend this opportunity to quantitative field researchers also takes advantage of institutional memory — new arrivals will learn from the anecdotes, assumptions, and expectations held by those denizens of Gameplay Space who were familiar with the last ethnographer (Linde 2008). In other words, the way that Execution Labs as an institution tells stories about its past will continue to provide rich didactic opportunities for aspiring ethnographers—not only to learn about the practice of embedded ethnography, but also about this institution at the cutting edge of alternative labour configurations in the new media economy.

Admissions Process

Chronologically speaking, my first task as the Execution Labs embedded ethnographer was to sit in on, observe, and critically reflect on the admissions interview process. The Pre-Production Accelerator program was officially announced to the public in early November, 2014. In about a month's time, 17 teams had applied for the program, and the executives began sorting the pool of applicants into those teams that would be 'called back' for an in-person or skype-based interview. It is worth noting that application merit was not the sole factor in determining whether or not teams would be called back to the interview stage. In many cases, one of the executives (and, most saliently among them, Jason) had prior experience meeting with teams, discussing their project in person, and encouraging them to apply to the upcoming cohort. Conversely, the process of rejecting teams was done with a view to letting them down gently and informatively: for the teams that didn't make the cut, one of the executives would be given the task of crafting a personalized rejection letter that detailed the teams' shortcomings, pointers on how to improve, and signed off by encouraging the team to reapply. The care given to teams outside the immediate cohort was, in part, a product of XL's broader commitment to strengthening the profile of, and sharing useful knowledge with, indie communities worldwide.

The admissions interview process represented the inception of my involvement at Execution Labs. I was invited to sit in on the interviews, starting with the first interview (Stone Boat) on the 10th of December, 2014. Far from being an invisible outsider, I was a recognized part of the process: Jason never failed to introduce me as 'Our Embedded Ethnographer,' which often

elicited humorously puzzled looks from the interviewees. During the interview process proper, I would record thoughts and observations—both about the teams applying and the interview process in general—but at no point did I assume an active speaking role. Instead, after each interview had concluded and the applicants had left the space or ended the call, the remaining XL staffers would share our impressions of the team; here again, Jason made a regular point of asking for my input. Unfamiliar as I was with practice of ethnography in general and this subject matter in particular, my insights were limited—but I did manage to make myself useful on more than occasion, most saliently when I pointed out a troubling shift in social dynamic amongst one of the teams when one of their angel investors unexpectedly joined the call halfway through.

Those teams which were judged favourably were given the opportunity to schedule a follow-up 'Deep Dive' meeting or call with Derek which, as the name might imply, involved going over the teams' demos/prototypes/concept documents in exacting detail. I was similarly invited to sit in on as many of these calls as possible, but due to scheduling difficulties, many of the later interviews and deep dives were postponed until after I had already departed Montreal for my winter holiday in Vancouver. The XL team was generous and accommodating enough to 'skype me in,' even for the face-to-face meetings, but the extra layer of poor-fidelity mediation impacted my observational acumen negatively, and my busy schedule prevented me from being present for all of the deep dives.

Participant Observation

The first Execution Labs Pre-Production Accelerator cohort kicked off on the 26th of January, 2015 in the new Gameplay Space. At the outset of each week, I would earmark 3 weekdays to be physically present at Execution Labs, most commonly from 11am-6pm. The timing was chosen so as to cover the parts of the day where meetings, lessons, stand-ups, mentor visits, playtests, and presentations were most likely to occur. For each meeting or event I attended, I would bring my notebook along and record observations in black or purple ink about the general course of the conversation alongside 'meta-notes'—observations written in a green-coloured pen that would speak to curious social dynamics or larger theoretical implications that wouldn't be done justice by simply reporting what was said. Recording direct observations and my higher-level thoughts alongside one another—but in different colours—was a practice I fell into after the

conclusion of the second admission interview I sat in on. At the time, I was attempting to faithfully reproduce the gist of what was said and done, but I allowed personal realizations and high-level questions to languish in my memory, hoping that they would re-occur to me at a later date. This practice left me feeling deeply uncomfortable, and from the third meeting onwards, I strove to intertwine direct observations with my own commentary on them. Although I only discovered the passage later, this is a practice that Boellstorff et. al. highly encourage: "all of us would often commingle interpretation and basic observations, separating them with marginal notes, with typographical markers such as italics, or simply by the content of the text." (2012, 84)

Although most of the cohort's schedule was largely free-form and/or determined by external forces such as upcoming conferences or mentor visits, there were some patterns to the events that I strove to be in attendance for. Mondays were most often set aside for the Voltron University sessions described in the last chapter. Somewhere in between two of the sessions, usually at about 1:15pm, the weekly Stand-Up meeting would take place. As the name might imply, this was a weekly meeting designed to get all of the XL execs, Voltron, and staff onto the same page with expediency; sitting was strictly forbidden. In spite of their intended brevity, the stand-ups would often devolve into much lengthier discussions of recent events or impromptu strategy sessions for coping with an outstanding issue. This tendency was far from unique; for a variety of reasons, Voltron University sessions, stand-ups, and other planned events would frequently run longer than intended, be postponed, or get moved to a different day. The mercurial and capricious nature of planned events in the game industry thus demanded a great deal of operational flexibility from everyone involved—myself included. I eventually learned to pre-empt this: I would often arrive at Execution Labs in the morning of a given day with nothing in particular planned, and on most such occasions, something would come up and a hasty gathering of relevant individuals would be called. Simply being present in the space and waiting for such events to spontaneously manifest led to a significant portion of my participant observation notes.

When determining which events to sit in on, I adopted what one might term a 'passively eager' attitude towards any of the scheduled events that would take place in private meeting rooms, behind closed doors. What I mean by this is that, throughout my time at Execution Labs, I was never able to unambiguously predict which private meetings/events I would be permitted to sit in on, and which I would not be. Not wanting to stretch or squander what goodwill I had managed to accrue, I opted to freely attend events where my attendance would clearly be welcomed.

Conversely, I would wait for an invitation to be forthcoming before barging in on a private meeting, playtest, or feedback session for a single team. At times, this strategy paid off—certain teams started actively seeking me out before holding a meeting or brainstorming session, hoping that I might be able to contribute useful insight. Towards the end of the cohort, Voltron members would similarly enlist my assistance or pointedly include me so as to solicit my feedback at a later date. In other respects, it led to some missed opportunities, as certain teams assumed that I didn't want to—or was unavailable to—sit in and observe. Many times, Jason, Behrouz, Astrid, or Derek would emerge from a meeting, spy me typing away or reading, and say something along the lines of "Oh man, you missed out on an amazing meeting!" to which I would often reply: "I didn't know I was welcome!"[17] Given the chance to conduct another embedded ethnography project, I feel I would be better equipped to be more of a vocal, visible presence in my space of study, especially with regards to proactively seeking permission to attend certain events and meetings. This being my first encounter with embedded ethnography, it took me a considerable length of time before I felt passably comfortable with my role, my place in the community, my objectives, my methods, and how best to comport myself; by the time I had begun to understand these relationships, the end of the cohort was already looming.

Were one to read over my raw field notes, one would probably notice a lack of attention paid to quotidian design, asset-creation, and programming labour. This stands in stark contrast with other ethnographic works on the game industry, such as those by O'Donnell (2014), Banks (2013), and Malaby (2009), which describe facets of daily development practice in detail. In order to illustrate why a similar focus is absent from my work, I would first turn to an important claim O'Donnell makes about the link between daily development proficiency and success: "there is an assumption that a developer's performance and compensation has a direct relationship to an individual's skills. If a developer is unsuccessful or not paid well enough, the problem is a personal one; there is no possibility that structural issues might be condemning developers." (2014, 151) In many ways, my experience at Execution Labs evinced the opposite attitude; to my recollection, not once did I hear anyone implicitly or explicitly express the opinion a team's chances of success would be determined by their skill in the conventional core development competencies of art, design, and programming (O'Donnell 2014, 103–135). Instead, XL's narrative, pedagogical, and

[17] Both of these quotes are, of course, heavily paraphrased agglomerations.

practical stakes were entirely bound up in business and networking concerns—an area of expertise that both O'Donnell (2014, 65–67) and Jason Della Rocca identify as being distasteful to many developers. The Pre-Production Accelerator, designed as it was to focus on the business-related elements of independent game production, only closely scrutinized individual developer skill during the application process. In other words, teams were required to demonstrate solid artistic, programming, and game design credentials as a precondition to secure admission to the program, after which point they were expected to continue to exhibit said proficiency so as not to take up time that could be used for learning and applying lessons about community management, pitching, and running a start-up. I recognize now that mimicking—or, perhaps, adopting wholesale—the interpretive framework Execution Labs applied to separating what demanded their attention and intervention and what didn't may have constituted a mistake on my part. That said, Boellstorff et. al. council that "all good science flows from a scientist's passion to learn something he or she is deeply curious about." (2012, 86) Although I was more than happy to discuss daily development practice with those I interviewed, my primary interests were more closely attuned to questions pertaining to risk, indie identity, new entrepreneurship, and indie community.

Interviews

Roughly three weeks into the ethnography, Dr. Whitson and Dr. Simon contacted me to let me know that it was time to initiate the one-on-one process. Through most of the process, I closely followed the cues provided by my mentors. Prior to the first round of interviews in late February, an extended email conversation between Dr. Whitson, Dr. Simon and myself yielded a host of themes and areas we were interested in exploring. Drawing on this conversation, I synthesized a list of eleven broad questions that I endeavoured to cover during the participant interviews.[18] During all-hands meetings, I had publicly announced to the teams that I intended to get in touch with them to schedule a time to sit down and chat privately—a declaration that I made good on by first broadcasting an open email invitation to participate in the interview process on February 17th, via the XL mailing list. A crop of five XL participants replied to my invitation immediately, each eager to speak about their experiences, to learn more about the research I was doing, to take me up on my offer to cover the costs of a lunch out, or some combination thereof.

[18] The interview questions can be found in Appendix A

The interviews were conducted at a variety of nearby coffee shops or restaurants, with each lasting somewhere between 45 minutes and 2 hours. After asking for their permission to record the interview with a Zoom H2n portable recorder, I would start the conversation by prompting the informant with relatively general queries about their background, education, reasons for applying to XL, and so on. Although I approached each interview armed with an 11-point questionnaire, I attempted to resort to the questionnaire only in cases where the conversation was lulling or drifting onto topics of dubious germaneness; for the most part, I attempted to allow the informant to dictate the flow and pace of conversation, as part of a larger commitment to letting participants tell their story, rather than force their experiences through a survey-like set of metrics. Celia Pearce describes her approach to ethnography as inspired by the twin concepts of 'choreography' and 'crystallization.' (2009, 200) Again, I only encountered her writings after the conclusion of my field work at XL, but her description of ethnography as being rooted in a practice of drawing "from a repertoire of moves that can be reconfigured and improvised as needed" (2009, 200) resonated with the interviewing style I employed throughout.

In preparation for the second round of interviews, Dr. Whitson and I held a lengthy skype call wherein we discussed the broad themes that we had noticed during the first interview process, as well as from notes I had taken at industry events, meetups, and parties. Four major themes and two particular questions emerged from this call. The themes were 'Defining Success,' 'Coping with Failure,' 'Achieving Sustainability,' and 'The Role of Legitimacy.' The two questions, designed to elicit thoughtful, anecdotal responses, were: "What was your worst day in the past three months?" "Conversely, what was your best day?" Rather than distill the themes into a set of questions as was done for the first round of interviews, I opted to rely almost entirely on my improvisational interviewing ability. Otherwise, the second round of interviews was conducted in much the same manner as the first, with three notable exceptions: First, the interviews were taking place towards the end of or after the cohort, and thus, served as a retrospective on the PPA program. Second, I decided to include all of the executives and Voltron members in the list of people I intended to interview. The decision to place greater emphasis on the executives, staff, and Voltron was one of my own devising; it stemmed from my interest in governance, community management, and the use of productive contingency in the workplace. Early on, I saw echoes of the team leaders' problems in the similar tribulations faced by Voltron and the executives. Their respective struggles to determine how best to structure time, creative agency, and generative

contingency was one that has broader implications for our understanding of mitigating risk and disseminating knowledge the 'new economy' (Banks 2013; Dyer-Witheford and De Peuter 2009; O'Donnell 2014). As such, I viewed the addition of their perspectives to be a valuable contribution to our research.

Finally, because regular XL scheduling ceased with the end of the formal cohort, far more participants were available for interviews in the second round than they were in the first. By the time I wrapped up the last interview on June 8th, 2015, I had managed to conduct twenty interviews, fifteen of which came from the second round. Despite the bump in participation, the inclusion of execs, Voltron, multiple interviews with the same participant, and XL Alumnus Talia meant that the interviews I conducted covered a comparatively small proportion of the overall participants from this inaugural PPA cohort. In part, this sluggish response arose from my own unwillingness to carry out a sustained pestering campaign in the hopes that I would eventually wear down the recalcitrant elements. Even now, if forced to choose between good standing with the developers or comprehensive interview data, my gut instinct is to go with the former. Casey O'Donnell, speaking about his experiences as an embedded ethnographer in a mid-size game development studio, describes how many of the employees there were reluctant to speak to him because "they felt speaking with [him] would simply not be useful" (2014, 11). In this respect, my experiences differ from O'Donnell's; it would later emerge that the paucity of willing informants at Execution Labs was partially product of the breakneck schedule participants were expected to adhere to. Daily meetings, impromptu checkups, lunch-and-learns, visits from mentors, Voltron University sessions, pitch practices, brown-bag-lunches, industry meetups—by its very aim, XL piled many of the aforementioned regular commitments on top of the already grueling pace of development expectations. In the interviews, the single most common criticism participants had for the PPA program concerned the insurmountability of the extracurricular schedule imposed by Voltron and the Execs. One participant summed this up by claiming that, even though the events scheduled for lunchtime weren't the most mentally demanding, it was crucial that developers be given about one relaxing hour in the middle of the day, clear of commitments, for the sake of maintaining sanity and composure. Considered in this light, that the majority of the PPA developers weren't chomping at the proverbial bit to sacrifice yet another lunchtime to participate in something that held no obvious promise of immediate benefit isn't at all surprising.

Community Events and Presentations

For many of the XL participants I spoke to, the notable strength, benevolence, and dedication of Montreal's game development community formed a vital support network for their development practice. Generating innovative ideas, making connections, discovering potential collaborations, and providing a forum for gauging the pulse of the industry as a whole were all counted amongst the useful functions informants ascribed to the community. Dr. Whitson, recognizing external events' importance for—and impact on—the development taking place in Execution Labs, would prompt me to attend such meetups and faithfully record what I witnessed. My approach to recording the public events I attended was largely informed by my own subjective read on the boundaries of propriety present at said events. At events with public speakers or panels—such as the IGDA's topical and serendipitous 'Start-up Fever' panel—I employed a hybrid method in which I used the Zoom H2n microphone to create the best audio recordings possible; these recordings were augmented with field notes I took during the presentation, representing a leaner, curated view of what was said alongside my immediate responses. For other more intimate events, such as the Gameloop Montreal UNConference,[19] I surmised that the use of an audio recorder would have been frowned upon, so I had to content myself with my attempts to faithfully render lectures and roundtable discussions in handwritten, point-form notes. Unfortunately, due to schedule and monetary limitations, I was unable to attend the high-profile industry events—such as the Penny Arcade Expo and the Game Developer Conference—that the XL teams did.

Textual Sources

In spite of the fact that the vast majority of the people working with Execution Labs inhabited the same physical space on a daily basis, a remarkable share of the communication that flowed between cohort teams, administrative staff, researchers, the executives, and Voltron was rendered in text. During the initial process of setting up mailing lists and in-house email addresses for the new cohort, Behrouz was thoughtful enough to include me in both the 'Voltron' and 'Team'

[19] 'Unconference' refers to the democratic-emergent scheduling format; the schedule for the day is determined by participants at the beginning of the unconference.

lists, which ensured that much of the cohort-wide correspondence landed in my inbox. Although I originally viewed the emails as dwelling beyond the scope of our research project, Dr. Whitson informed me that, were I to cling to this view, the ethnography would suffer. Speaking to this issue, Boellstorf et. al., write:

> A basic principle of ethnographic research is that we should take our lead from our informants, following them to wherever they engage in relevant activity. As part of this process, we need to archive data about places beyond the platform. It is important to remember that anything on the internet is transient. It is unwise to simply preserve a link and assume the material will be online indefinitely. This is why we recommend capturing all such data, rather than trusting it to still be there when we return to a form or website many months later (Boellstorff et al. 2012, 118–119).

As such, one week after grand finale post-mortem meeting on May 11th, I took it upon myself to preserve all of the text-based communication I had access to. This preservation effort was carried out across two formats: the first was comprised of the email threads that had been archived in my Gmail inbox over the course of my involvement. Because the vast majority of all XL emails were sent through company email addresses (example@executionlabs.com), tasking an unmodified Gmail client with separating out all emails sent with a specific address suffix was trivial. I then compressed and uploaded each of the emails into the XL Ethnography Dropbox in 17 batches.

The other primary textual source took the form of a workplace chat client called 'Slack' that Behrouz implemented for the executives, Voltron, and the research team on the 13th of April —about 2 weeks before the formal end of the cohort. The Slack chat was established in part to stem the daily deluge of emails XL generated. The presence of dedicated 'channels' for each team, general chat, and random off-topic thoughts lent an air of permissibility to the conversations taking place in Slack. Unlike emails, the importance of which remain largely indeterminate until opened, entire Slack channels could be ignored at one's discretion if one was uninterested in the conversation taking place within. Unburdened from the fear of clogging up others' inboxes, it wasn't long at all before emoticons, emoji, tongue-in-cheek puns and irreverent pictures became inextricably tangled amongst more serious discussions. In my view, the slack chat represents a poignant instantiation of the pervasive game industry humour O'Donnell makes note of in his

book, especially when applied to game developers' propensity for being in a state of perpetual crisis management (2014, 10, 138). As such, the data gathered from the Slack channel provides us with an important, personal window into the behind-the-scenes banter through crisis, triumph, and business as usual.

Preserving the Slack channels was a slightly more labour-intensive process: in order to select large sections of text to copy and paste into Microsoft Word files, I had to go directly to the team's Slack website, rather than using the desktop client we had all become accustomed to. Gathering textual data from the website was a clunky affair, as the website would only load the most recent portions of the current Slack channel. I resorted to scrolling to the end of each channel, selecting all of the text from the bottom of the page, and then holding my mouse near the top of the browser. This set off a torpid process that involved slowly scrolling to the top of the loaded text, hitting the edge of said loaded text, waiting for the Slack website to load more text, and repeating this loop until I reached the beginning of the channel. For some of the lesser-used channels, this took under 10 seconds. The larger channels took considerably longer—I consider myself fortunate that I was capturing this data while this particular Slack account was still nascent. As the size of the chat logs grows, so too will difficulty of preserving said logs, unless Slack implements channel download functionality, or a future researcher locates third-party software that facilitates such a download.

Reflexivity, Access, Acceptance, and Assistance

Whenever possible, I attempted to ruminate on and record my thoughts about the role I was playing as an embedded researcher at Execution Labs. Reading back through my notebook reveals a broad range of emotional beats, from euphoric highs spurred on by feelings of usefulness and inclusion to somber lows prompted by feelings of transience, inefficacy, and logistic concerns. As previously mentioned, I wrote these entries with an external audience in mind, knowing that as soon as I saved the entry, Dr. Whitson or Dr. Simon could read them. As such, I believe the raw entries speak powerfully to the questions, uncertainties, epiphanies, and ruminations that gripped me in the moment. To summarize them would be to damage their fidelity, so I have opted to include an edited passage from a particularly contemplative notebook entry.

Field Notebook Entry for 2015-04-02 (*A Beautiful Little Moment*): I think that in the context of Ethnography specifically, access and acceptance differ critically. If one were to conduct 'balcony' research, where one is not embedded and taking up the culture and practice of the group being studied, access is the only necessary condition — acceptance is a nice bonus, but ultimately irrelevant (and, might even prove deleterious to one's supposed 'neutrality,' if one is taking a more positivist approach). By way of contrast (and who knows how this truly works for others of my ilk), I suspect that access and acceptance represent distinct phases in the process of becoming ethnographically embedded in a culture/community/workplace. Access, obviously, is the baseline precondition without which ethnography cannot be ethically pursued — it implies a given ability to enter the space without imposing upon said space or disturbing those who work within it — or, at the very least, not so much so as to cause access to be revoked. As long as an ethnographer is prudent, unobtrusive, and doesn't use up resources, access, once given, is likely to persist. Acceptance, on the other hand, seems like something that must be earned after access has been granted and utilized, at least to some extent.

As fate would have it, the XL execs had come to view their home-style sound system (untimely rip'd from the old offices) as insufficient for the much larger Gameplay Space. Behrouz and Jason both wanted to ensure that we'd be able to really bring the house down with a new set of speakers, but weren't sure how to proceed, nor how to secure the most proverbial bang for their buck. The notion of my stepping in to assist was bandied about and, before long, I found myself giving sales pitches to them about the merits of a totally revamped, pro-audio quality $1400 speaker system which would come with built-in future proofing. The speakers were installed 2 days before XL's Grand Opening party, and they sound they provided was flawless. They've continued to serve us faithfully — in both a presentation audio role and as a party audio system — ever since.

I can tell that my willingness to help, along with the other, less tangible snippets of value that I manage to contribute, are noticed and appreciated by the XL Execs — even if they have a predictably detached, gruff way of

expressing it… For the most part, that is. There have been a couple of recent incidents that have shown, in my view, just how far I've progressed in the acceptance category since I arrived here. The first came in the form of Derek approaching me about 2 weeks ago to meet for a 1-on-1 meeting. He claimed at the time that he wanted me to give him some feedback on how he was doing his job and his role at XL. […] It was an interesting window into the struggles and challenges Derek faces right now, and I'm fairly certain that I was only given the opportunity to peek through said window because of the goodwill I had generated previously. I have a hunch that Derek didn't approach me out of some kind of respect for my station or what I represent, but rather how I had acted and comported myself since arriving at XL.

I could, of course, be completely wrong about that. As I mentioned earlier, I often find myself questioning my role here — challenging myself to think through my assumptions about who I am, what I represent, and how I'm situated in relation to the people and culture I'm researching currently… But every so often something comes along that reaffirms my ability to be useful as more than just a researcher — that my presence here can be a boon, regardless of what my larger research aims are.

When I arrived at Gameplay Space this morning, I made a groggy beeline for my desk, slumped down in my chair, and began unpacking my equipment at a languid pace. Whilst doing so, I just so happened to glance over at the Clairvoyant desk area, where I noticed that the artist, Evan, was toying around with physically-simulated dice designs; his mock-ups were clearly intended to show how dice could be configured by players to have 'stars' (symbols that activate special abilities in-game) on whatever side of the dice they desire, so as to boost successes or dull the sting of failure (but not both).

That was my idea.

I first brought it up in the Clairvoyant brainstorming session that Jake had invited me to, and it very quickly gained assent from the rest of the assembled brainstormers. It was a rare moment where I felt able to fully flex my gamer capital, rather than play the role of the interested observer; my references to obscure—though germane—games were very well-received

> by Jason and Yves (the expert in the room brought in to help CU brainstorm), and rapidly established me as a seasoned veteran who had put considerable thought into the kinds of systems that might make [their game] more compelling/engrossing/emergent. Watching the idea come full circle — from a mere notion in my head while I played the very early tech demo, to pitching it to a room of hardened industry vets (CU has 45+ years of combined AAA experience), to watching it get taken up and fleshed out through the brainstorming session, to observing it come to life, literally before my eyes…
>
> There's something here to be said here about the role of the invested researcher; rather than coming into ethnography in an attempt to be value-neutral, detached, and strictly observant, it seems far better to try getting your hands dirty in whatever way you can, contributing whatever you discover, and embracing the messy fluidity necessary to rapidly transition between researcher, collaborator, contributor, and confidante. It seems to either take a lot of trust (Built up slowly over 3 extremely convivial interviews with Clairvoyant) or pre-existing interest (Periapsis's academic history or Nightwatch's interest in conceptualizing alternative indie industry models) to get to a point where developers are openly receptive to the researcher.

Conclusion

Conducting research projects about and alongside indie game developers is an exciting and meaningful experience. Rather than merely recording information, indie developers can permit ethnographers to play an active and contributory role in their work in ways that mainstream AAA game developers are simply unable to:

> Indies, unlike AAA, actually want our help. And we are more than able to give it. We need to first understand, and then promote the cultural, political, economic, technical, and social infrastructures needed to support indies. … We can start by partnering on projects, or providing free consulting,

> playtesting or work space, or designing tools that better arm them for their upcoming battles. (Whitson 2012, 127)

The passage from my notebook shows how I was able to contribute to Execution Labs and Clairvoyant both alongside and as a part of my involvement as a researcher. Some of the other developers I spoke to reported feeling that the interview process was beneficial:

> ***Pierson:*** *Any feedback for me? Was I a terrible tyrant?*
>
> **Evan:** The WORST!
>
> ***Pierson:*** *[Laughter] The worst!*
>
> **Evan:** No, I think this was kind of like… Uh… I'm trying to think of the word. Therapeutic is probably way too weird of a word to use, but it's kind of nice to be able to think back on stuff and reflect on it.

My ethnographic work was undoubtedly at its best when I was functioning as a collaborator, as opposed to a mere observer. This is hardly surprising; collaboration lies at the heart of indie development practice. In the chapter that follows, I will explore how early collaborative communities are implicit in our understanding of indie development practice today.

CHAPTER 4 — BREAKING NEW GROUND

It's a blustery Wednesday in late February — not exactly the nicest time of year for spending extended periods of time outside; Quebec is experiencing its coldest winter on record, which makes the stiff, huddled haste of two figures walking down the street all the more understandable. I'm one of those figures, and I'm trying to engage Evan, Clairvoyant's in-house artist, in what small talk I can. Most of my words are muffled and distorted by the scarf wrapped tightly around my mouth, stymieing my efforts to break the ice. Pun intended. Our destination is a small coffee shop a couple of blocks away from the Execution Labs headquarters in downtown Montreal. His was to be the first interview I conducted as part of the ethnography, and it happened to be an auspicious one. Once inside, unbundled, and with coffee in hand, the conversation drifted to the topic of Evan's entry into the world of indie development:

> **Evan:** Even though I've always wanted to get into games, I've always just done my own art stuff on the side and I've always been super attached to what I do. Pretty much I feel that what I work on is a reflection of who I am and things I like.
>
> ***Pierson:*** *So, that's the appeal of indie to you, then, is you feel like you would spend all of your time through an entire game arc, see it from start to finish?*
>
> **Evan:** Yeah, so, around that time — it's probably a really cheesy story, but um…
>
> ***Pierson:*** *There's no story too cheesy, no anecdote too tangential; please!*
>
> **Evan:** Around that time, *Indie Game: The Movie* came out.
>
> ***Pierson:*** *Oh, yeah, um — I haven't seen it, but I heard it's…*
>
> **Evan:** So my art is actually in the movie.
>
> ***Pierson:*** *REALLY!? Oh my god!! Awesome!*
>
> **Evan:** So it's kind of a funny story: at school, at one point, when *Super Meat Boy* came out, I was obsessed with that game, crazy about it… At one point in art history class or something, I was doodling and I drew this *Super Meat Boy* thing. I posted it on Twitter, and Edmund McMillen, the artist, retweeted

it and was like "This is amazing! This is like the first fan-art we've ever gotten! Holy shit!"

Pierson: *Cool!*

Evan: I was 'oh my god!' That was cool! And then *Indie Game: The Movie* comes out, and there's a screening … So I went there with three of my friends, we go see the movie, and halfway through the movie, it cuts to post-*Super Meat Boy* launch; Edmund's just looking on his computer, he's on Twitter, and he opens my fan art on Twitter and he goes: "Oh my god! This is amazing!"

Pierson: *They caught that on CAMERA?!*

Evan: They caught that on camera! It's him going — "Oh my god! I used to draw Mario when I was a kid; this is like the exact same moment but with my game!" And I had no idea! I flipped out in the theatre! My friends just look at me—because they had seen the thing—and they're like "Holy Shit!" And the guys behind me go: "Are you okay?"

Pierson: *(*Raucous Laughter*) "Are you having a heart attack, sir?"*

Evan: I go: "That's… That's MY art!!" The guy was like "OMG really?!" I'm like "Yeah!" "Holy shit, dude!" So, that night I send an email to Lisanne and James, the movie's directors, and I sent them a picture of the drawing. They emailed back, and they were like, "Oh my god! We've been trying to track you down for MONTHS, because we haven't been able to find that original post on Twitter," because at the time, Twitter's search didn't go back that far. "We've been trying to find you this whole time, we haven't been able to! I was like: "What the hell!" And, yeah, we kept in touch for a while. Every now and then, we still email each other, say "Hey how's it going?" But yeah! This total amazing thing! That feeling made me realize that… That would have never happened if I wasn't super passionate about who I was and the things that I liked and what I did, and it kind of fueled this thing that was like… I want to be that excited about everything I do! I want that kind of reaction to… I would like for someone to do the same thing that I did, basically.

Pierson: *Right, I'm noticing a bit of a baton, here. Mario to this guy, this guy to you, maybe one day…*

Evan: Maybe one day, me to someone else.

Originally, Evan had wanted to work in the AAA games industry producing art assets for major titles. His serendipitous exchange with Edmund and *Indie Game: The Movie's* (Pajot and Swirsky 2012) producers had a profound impact on the course of Evan's career: later on in our conversation, he told me about a momentous evening where he found himself forced to choose between one of two job offers. The first was from someone he had met through the community—first on twitter, and then at a local game developer meetup—to work on an indie game at a brand new start-up studio named Clairvoyant. The second, from an established mainstream studio in Montreal, would have provided Evan a very comfortable salary, but almost no creative freedom. Ultimately, Evan decided to accept the position at Clairvoyant, citing his affinity for creative latitude, being close to and recognizable in his artwork, passionate about his project, and being able to freely interact with communities of developers, artists, and fans—all of which Clairvoyant would allow, facilitate, and encourage.

The above parable is but one of many I encountered which placed great value on interpersonal connections that fall outside of traditional networking paradigms (Neff 2012, 115).[20] Almost all of the developers I spoke to mentioned developer communities which had assisted them in their efforts to form and sustain their studios. Community was variously responsible for providing contacts, feedback, inspiration, knowledge, advice, emotional and material support, and potential team members. Developer communities are far cry from the 'metaphorical islands of information disconnected from the mainland' (2014, 173), as O'Donnell described them; community is at the core of compelling and important alternatives to mainstream development practice.

Taking Evan's story about *Super Meat Boy* (2010) and fan artwork as a starting point, this chapter will propose that indie communities can be thought of as imagined communities (Anderson

[20] I'm referring here to Neff's description of networking in Silicon Alley, where one of the primary objectives of networking—from an employee's perspective—is to secure 'weak ties' that will help them find employment at a later date (Neff 2012, 115; Granovetter 1973), which was perceived as helping to hedge against economic uncertainty. In this regard, Silicon Alley venture networks failed spectacularly (Neff 2012, 130–131)

2006); loose associations of people with a shared sense of belonging to a recognizable form of indie development praxis. Using *Super Meat Boy's* origins as a flash game on Newgrounds.com as an example, I will argue that open, accessible, common creative discourse is a vital component of the imagined communities which have coalesced around indie development practice. These communities, in turn, have provided possibility space and support for future indie start-up studios, helping them to manage the risks they face in an uncertain and overcrowded economic context.

Imagined National Communities

Benedict Anderson's (2006) foundational work on the emergence of nation-states—*Imagined Communities: Reflections on the Origin and Spread of Nationalism*—begins with the assertion that "nationality, or, as one might prefer to put it in view of that word's multiple significations, nation-ness, as well as nationalism, are cultural artefacts of a particular kind. To understand them properly we need to consider how they have come into historical being, in what ways their meanings have changed over time, and why, today, they command such profound emotional legitimacy" (2006, 4). He goes on to explain that the nation can be thought of in terms of an 'imagined political community.' His inclusion of the word 'imagined' is crucial for three related reasons: First, nations are far too large for any one member to be personally familiar with even a small percentage of their fellow citizens. Second, the creation of a national community does not reify or instantiate pre-existing or 'true' groupings of people; it imagines nations where no such group previously existed. Finally, the use of the term 'imagined' does not imply 'fabrication' or 'falsity,' but should be thought of in the productive, creative sense of the word: nations are collectively imagined into being. In this way, imagined communities are affective, have fungible power, and should not be contrasted with underlying 'real' communities because—as Anderson notes—"all communities larger than primordial villages of face-to-face contact (and perhaps even these) are imagined" (2006, 6).

Anderson argues that the emergence of nationalism as a modular, transposable concept can be traced back to a single instigative event: the invention of the Gutenberg printing press. Before

the dissemination of works printed in a variety of localized vernaculars, Latin[21] was the spoken language of the pan-European nobility and local administrations, and its particular character as a sacred script—to which only a privileged few had access—cemented it as a language of power in pre-reformation Europe:

> The astonishing power of the papacy in its noonday is only comprehensible in terms of a trans-European Latin-writing clerisy, and a conception of the world, shared by virtually everyone, that the bilingual intelligentsia, by mediating between vernacular and Latin, mediated between earth and heaven. (The awesomeness of excommunication reflects this cosmology.) (Anderson 2006, 15–16)

The market for early printing-press capitalists was initially coterminous with Europe's wide, thin crust of literate Latin-readers. However, the wealthy purveyors of the first industrially-produced commodity sported a correspondingly insatiable thirst for new markets, and by the mid-17th century, the demand for Latin books had been thoroughly sated. Before long, printing-houses turned to inexpensive bibles printed in the vernacular so as to be readable by the substantially larger market of unilingual literates. This, coupled with the gradual vernacularization of local administrations, "made it possible for rapidly growing numbers of people to think about themselves, and to relate themselves to others, in profoundly new ways" (2006, 37). These developments, in turn, destabilized the hierarchy atop which rested the formerly unchallenged backbones of European society: the religious order and the principle of hereditary divine right to rule:

> From this point on the old sacred languages—Latin, Greek, and Hebrew—were forced to mingle on equal ontological footing with a motley plebeian crowd of vernacular rivals, in a movement which complemented their earlier demotion in the market-place by print capitalism. If all languages now shared a common (intra-)mundane status, then all were in principle equally worthy of study and admiration. But by who? Logically, since now none

[21] Latin is not the only language he applies his analysis to. In fact, Anderson expends considerable effort tracing similar developments of nationalism through various regions outside the Occident. Regrettably, for the sake of brevity and linguistic clarity, I have opted to focus my review of *Imagined Communities* on those elements that deal with the development of European nationalism.

> belonged to God, by their new owners: each language's native speakers—and readers. (2006, 70–71)

This, in turn, threw ruling elites into a state of crisis. In a sceptical, scientific, capitalist age where communication in the vernacular reigned supreme, monarchies could no longer rest comfortably on sacrality and antiquity alone; the twinned pillars were no longer sufficiently legitimate (Anderson 2006, 85). The elites' response, Anderson argues, was to co-opt emerging national consciousnesses to shore up this legitimacy gap:

> Insofar as all dynasts by mid-century were using some vernacular as language-of-state, and also because of the rapidly rising prestige all over Europe of the national idea, there was a discernible tendency among the Euro-Mediterranean monarchies to sidle towards a beckoning national identification. Romanovs discovered they were Great Russians, Hanoverians that they were English, Hohenzollerns that they were Germans-and with rather more difficulty their cousins turned Romanian, Greek, and so forth. (2006, 85)

Anderson argues that this progression, from absolute scriptural control by the privileged and powerful to the formation and subsequent official inclusion of the communities which formed around vernacular languages, resulted in the formation of imagined national communities as we know them today. As I will argue in the next section, since 2004, there has been a progression towards the emergence of what I call 'Imagined Indie Communities.' To trace these developments, we must first turn our gaze back to 1983—the year of the Nintendo Entertainment System's release in Japan.

The Tyranny of Data Intensity

In 1982, the North American game industry was in a sorry way. The home console market was dominated by the Atari 2600—the most popular video game console to that point—but a complete lack of enforceable control on who could develop what for which system had allowed a crowd of inexperienced start-up third-party developers to reverse engineer the console architecture and flood the market with cheap, poorly-made games (Montfort and Bogost 2009, 133–134). Their right to do so was reinforced by the landmark 1982 ruling in Atari's lawsuit against third-party

developer Activision which effectively stripped away any console manufacturer's ability to exert control over who published games for their systems (Fleming 2007). The perfect storm ensued: alongside steep inflation and competition from home computers, a tide of poor-quality, highly-advertised titles entered the market and torpedoed the industry's credibility. The result was a dramatic collapse in game sales (from 3.2 billion in 1983 to 0.1 billion in 1985 — a drop of 97%) and the closure of several high-profile game studios and console manufacturers (Montfort and Bogost 2009, 134; NINTENDO LAND 2010).

It was into this bombed-out ruin of an industry that Nintendo released their first North American home game console—the Nintendo Entertainment System (NES)—in 1985. Aside from playing host to several video games which have shaped and defined the market ever since, the North American version of the NES included a revolutionary new system which gave them a power which Atari had lacked: the power of publication control. The public face of this regime was the 'Nintendo Seal of Quality'; prominently adorned as it was on all licensed titles, consumers could easily determine which games had earned Nintendo's express approval, thus avoiding the guessing game that buying Atari games in 1983 had become. Nintendo's Seal of Quality indicated a protected property, and Nintendo regularly and successfully sued companies who attempted to replicate it without authorization (O'Donnell 2014, 187–188). For undeterred companies, a complimentary regime of control awaited them in the form of a digital lock. Before the NES system would interface with the data contained on any game cartridge, the cartridge had to transmit an exact signal into a specialized portion of the console that identified it as a legitimately produced game whose manufacture had been properly licensed by Nintendo (O'Donnell 2014, 193–195). The 10NES system, as it was called, was patented, copyrighted, and a strict company secret; attempts to circumvent it usually failed, and companies engaged in forging or creating unauthorized copies of the system were repeatedly and swiftly cut down in a court of law. Where a restraining order had failed for Atari, Nintendo's protection of a proprietary, secret, patented, technology worked like a charm. This regime of state-supported restriction gave Nintendo nearly limitless control over who was allowed to publish games for the NES (and all subsequent Nintendo consoles), and to dictate the terms of any such arrangement. These terms were draconian and grossly unfair—companies were only permitted to publish five games on the NES per fiscal year, and all the costs of manufacturing had to be paid up-front, before production began. Nintendo would get its due regardless of how well the licensed game sold, forcing third-party developers to

shoulder all of the risk (O'Donnell 2014, 187–188). As a partial result of this unrivalled control, Nintendo's home consoles went on to become wildly successful; if game developers wanted to get their games for the NES to market, they had to play by Nintendo's rules.

Buying into the Nintendo licensing system was expensive, inconvenient, and risky, but it allowed companies to gain privileged access to another technology of control, the 'DevKit.' Nintendo introduced the first DevKits in order to bridge the gap between PCs, where NES software was generally created, and the NES console, where it was played. The DevKits also contained a Software Development Kit, which included several pieces of software that helped compile code and assets into a container that was usable on the DevKit (O'Donnell 2014, 200). Nintendo only ever leased DevKits out to developers for not-insignificant rates, and did so under a crushingly strict Non-Disclosure Agreement (NDA), ensuring the leased software would remain securely under Nintendo's control. Should a developer fall out of favour with Nintendo or breach the NDA, privileged access to the DevKit could be immediately revoked (O'Donnell 2014, 205–207). Without the DevKit, the developers would lose access to the SDK and, consequently, the conduit between a third-party developer and the NES console (O'Donnell 2014, 202). Nintendo's regime of control was so profitable and so successful at forcing developers to play along that it became an industry standard. Later entrants to the console game, such as Microsoft and Sony, have since copied Nintendo's model for licensing third-party developers and leasing DevKits verbatim (Dalmau 2004, 13–15). Thus far, the game industry in 1985 is looking very much like Anderson's conception of pre-reformation Europe: a small cadre of privileged rulers whose predominance is assumed and guaranteed by the unique sacrality of a set of texts which provides access to a holy realm (of sorts). With no alternative sacral text, and therefore no alternative route to the divine, falling out of favour with the dynastic despots of the day meant excommunication (Anderson 2006, 15–16).[22]

[22] It should be noted that even during the height of the manufacturers' oligarchical control over the console market, openly-accessible means of developing games for the PC were available to most developers. At the time, though, the PC market—and especially for boxed retail and downloadable games—was much smaller than the home console and handheld markets. The disparity is even more pronounced when one accounts for the fact that a large portion of PC gaming revenue at the time (circa 2005) stemmed from Massively Multiplayer Online (MMO titles), the development of which was NOT an accessible practice, and was dominated by an oligarchy of publishers similar to the console market (Kerr 2006, 53–59)

Our next stop in the history of the game industry is the 1990s—a decade when game development was transitioning from primarily 2-dimensional environments to primarily 3-dimensional environments at breakneck speed. In the early 1990s, graphical expectations were such that small teams of developers could produce market-competitive games for open platforms such as the PC. However, towards the end of the decade, 3D graphics cards tipped the scales of production decisively in favour of wealthy companies who could assemble larger asset-creation teams to tackle the considerably more involved task of populating a polygonal 3D world. John Banks, writing about his experiences as an ethnographer embedded with Australian game developer Auran, wrote:

> Game engines were becoming more complex as they moved towards modelling 3D environments. Developing an engine that could support a cutting-edge game was becoming a challenging long-term project that required a team of programmers working for at least two years. It was a multimillion dollar undertaking. This created an R&D barrier to entering the game industry. By early 1998, it was increasingly unlikely that a small team of enthusiastic programmers working from their garage would be able to develop a game engine that could then support the design of a commercially competitive game. The alternative was to license a game engine from another developer, and then modify it based on the requirements of the game design. But rapidly escalating license fees for the high-end engines were again prohibitive. (Banks 2013, 40)

Eight years onward, and the problems inherent in this 'progress' towards greater graphical fidelity had become intractable, even from the perspective of several well-known game development celebrities in the audience at Greg Costikyan's 2006 Game Developer's Conference (GDC) rant:[23]

> And how many are here because you love games? [majority of audience raises hands] I don't know about you, but the things I've heard here at GDC have made the future of this industry clear to me. With the arrival of next generation consoles, the whole cycle is about to be ratcheted up another notch. We're going to go from $5 million budgets to eight figure ones. We're

[23] Brenda Laurel, Jason Della Rocca, and Warren Spektor, to name just a few.

> going to go from dev teams in the dozens, to dev teams in the hundreds. It's all going to get bigger, as Iwata-san says. But is it going to get better? … My friends, we are f***ed! [laughter] We are well and truly f***ed. The bar in terms of graphics and glitz has been raised and raised and raised, until no one can any longer afford to risk anything at all. The sheer labor involved in creating a game has increased exponentially until our only choice is permanent crunch and mandatory 80-hour weeks, at least until all our jobs are outsourced to Asia. With these stakes, risks must be avoided, but without risk there is no innovation, and innovation is what drives growth in games. But it's OK, because the HD era is here, and big bucks are to be made. It doesn't matter if all we do from here to eternity is more photo-realistic drivers and shooters with more polygons on the screen. (Costikyan, quoted in Davis 2005)

In a time when graphical fidelity was considered a marker of quality, the very constitution of the digital game supply chain unduly favoured those studios whose games were the most visually appealing. Aphra Kerr's observations on the specificities of physical brick-and-mortar game retailers proves especially pertinent here:

> The retail stage of the production cycle is more and more the preserve of large supermarkets and specialist chains… As the main access point to consumers, retailers can significantly influence the success of a game through their allocation of shelf space and in-store marketing. (Kerr 2006, 65)

Better looking games were generally more expensive and had more of a visual impact on store shelves, meaning that retailers gave preferential treatment to big-budget, high-profile releases. At every step in the development cycle from pre-production to retail, the industry was stacked against smaller developers (Kerr 2006, 82–91). Understandably, these factors make the game industry of the late 1990s and early 2000s an incredibly hostile place for small start-up companies and indie developers. Due to the fact that digital game distribution didn't constitute a

significant share of the games market until Steam emerged in 2007 (Valve Corporation 2007),[24] and lacking any other truly significant alternative distribution channels, small start-ups and indie developers were effectively locked out of industry networks at every turn.

Where did the indie developers go? If one follows the trails left by the formation and growth of imagined indie communities, one can find vibrant collectives where the craft of game-making was collaboratively taught, practiced, and disseminated, even when the industry was at its most exclusive.

Publishing in the Vernacular — Newgrounds.com and Macromedia Flash

In 1995, Newgrounds.com was birthed unto the internet amidst a flurry of ribald, irreverent controversy; it has continued in much the same manner ever since. The web site was originally constructed by programmer Tom Fulp as a continuation of his formerly offline Neo Geo console fanzine (Fulp 2015a).[25] In 1996, Fulp uploaded his first interactive creations—*Club a Seal* and *Assassin*—to the website; their notoriety began to attract and sustain a morbidly devoted fan base. Shortly thereafter, Fulp started dabbling in animation using the Macromedia Flash environment. Further such releases led to more notoriety, which in turn led to a greater interest in Flash as an animation tool, and, consequently, an inundation of privately-submitted, community-made animations that Fulp started featuring in a portion of the website known as 'The Portal.' Before long, the volume of submissions outpaced Fulp's ability to watch and hand-pick exemplary submissions, and so he programmed an automated featuring protocol based on a weighted community rating system. The rating system was a simple 0-5 scale and was (loosely) democratic, but the website was only ever accessible to those willing to stomach the gratuitously violent, offensive content—an inclusive space this was not. Fulp gradually added more features to Newgrounds.com, including message boards, profiles, shared advertising revenue, and separate portals for Flash animations, interactive Flash games, original musical composition/audio work, and conventional static artwork, each with their own dedicated system for posting/locating. Before

[24] Steam was initially released in 2003 as a means of distributing Valve Corporation's games and keeping them up to date. Its arrival as a significant digital storefront and distribution platform for third parties would not come in earnest until 2007. It would take several more years before it became the predominant conduit for game sales on PCs (Cole 2015)

[25] Fulp derived the title for Newgrounds.com from the Neo Geo: Neo = New, Geo = Earth or Ground.

long, the website's community, cultural impact, and daily traffic grew to monumental proportions; by the early 2000s, it was one of the most visited websites on the internet. It is also widely regarded as the birthplace of the viral video; the 'Numa Numa Dance' first appeared on the internet via Newgrounds.com in 2004—a full year before YouTube was launched (Fulp 2015a).

Newgrounds.com's unrivalled integration of Flash animation, games, tutorials, and collaborative potential—most of it focused on critiquing, remixing, and satirizing popular game culture—cemented it as an indispensable clearing house for alternative, retro, and indie game communities. Anastasia Salter and John Murray write:

> Hubs like Newgrounds were particularly essential in the early portal-dominated content model of the World Wide Web, because many users came through frameworks such as AOL that heavily influenced site visibility and made it more challenging to find works scattered across the internet. These distributions networks were a revelation to animation. Previously, the only networks for reaching an audience were tightly-controlled by corporate media gatekeepers unlikely to ever offer the seal of approval to the type of projects early Flash animators flocked to create. (Salter and Murray 2014, 3)

Newgrounds.com's central role in early Flash communities means that many widely-known contemporary game personalities can trace their origins back to the production of Flash animations and games for Tom Fulp's Flash Portal. *Game Grumps*, a YouTube channel which currently releases daily videos to an audience of 2.5 million, was co-founded by Arin Hanson, more commonly known by his Newgrounds.com username 'Egoraptor.' Egoraptor's precipitous rise to fame began shortly after he wrote, animated, voiced, and released a Flash animation entitled *Metal Gear Awesome* (Egoraptor 2006)—a slapstick, over-the-top parody of popular PlayStation game *Metal Gear Solid* (1998) and its steep learning curve, melodramatic plot, idiosyncratic mechanics, and propensity for breaking the fourth wall. In my view, Egoraptor owes his success to a potent combination of Flash animation skill (including his signature illustration and voice acting styles) and a gift for counterbalancing his critical rants against the games parodied in his movies by simultaneously—and often, in same discursive act—demonstrating a deep, enduring adoration for them. In this way, Egoraptor was displaying and operationalizing embodied forms of cultural capital (Bourdieu 2011, 47; Malaby 2009, 36) and gamer capital (Consalvo 2007, 3–5), positioning him to take advantage of the collaborative or economic opportunities that arose as a

result of his work (Bourdieu 1990, 64). In *Developer's Dilemma,* O'Donnell describes 'The Rant' as a genre that "serves as a productive mode of critique in the videogame industry and among game developers. Though a rant's tone may come off as sardonic or flippant, it is a product of passion and interest. One cannot really rant without caring" (2014, 21). O'Donnell argues that the genre of the rant is used in the GDC's well-attended annual rant sessions and in 'video rants,' which commonly borrow from video reviews of games, but add generous doses of vitriolic hyperbole to achieve a bitingly critical—yet playful—tone. My purpose in evoking the genre of the rant is to argue that Egoraptor's works fall into a similar tradition. Many of the most popular works on Newgrounds.com adopt the same "deconstructive stance" (O'Donnell 2014, 22) as Egoraptor's, and rely on a careful and critical deployment of various forms of technical and gamer capital to achieve popularity.

As mentioned above, Fulp established Newgrounds.com as a hub for Flash animation and game-making early on it its lifespan. The site's platform-specific focus, coupled with its popularity, strong sense of community, ability to facilitate discourse, and obvious attraction to technically-minded gamers and game hobbyists cemented Newgrounds.com as one of the most valuable online resources for learning about Flash and collaborating with other Flash users (Salter and Murray 2014, 46). At first, community members would post Flash tutorials and resources on the site's message board. Users soon took to uploading animated tutorials—made in Flash, about Flash—to the Movie Portal. The most promising tutorial entries were eventually linked together by the sizable on-site Newgrounds.com Wiki, which provides all the information one needed to start making animations or games in Flash (Newgrounds 2015). Creative-collaborative efforts began in a similar manner, with forum threads or direct messages providing the main conduit for communication between interested parties. Before long, Fulp began reordering the site so as to better accommodate these community activities; the portals served as showcases for works made, but also as venues for making connections, generating inspiration, recognizing collaborative potential, and even licensing pre-existing works for use in new animations or games. Animators and illustrators would be recruited based on the works they had already produced for either the Movie or Art Portals. Those composers, sound designers, musicians, and voice actors whose works were in the Sound Portal were frequently called upon to lend their talents to up-and-coming collaborative projects, alongside having their works licensed directly out of the Portal itself. Sensing the site's potential to serve as a fertile nexus for collaboration, the Newgrounds.com staff

began organizing thematic 'collabs'; animation or game anthologies that would feature the work of several prominent Newgrounds.com personalities alongside contributions from lesser-known up-and-coming community contributors (Fulp 2015).

Key to the success and rapid expansion of the site's collaborative endeavours was the ubiquity of Flash, its ease of use, and the suitability of its small file sizes for an era of slow internet connections and low bandwidth (Manovich 2005, 11). Flash's power and communicability led Lev Manovich to proclaim that "more than just a result of a particular software/hardware situation (low bandwidth leading to the use of vector graphics), Flash aesthetics exemplifies cultural sensibility of a new generation" (2005, 1). So ubiquitous was Flash, and so widespread was a working knowledge of the program that Daniel Plemmons remarked:

> As a toolset for rapid, low barrier to entry, creation, iteration and publishing it is hard to beat Flash as a development platform. It's a veritable swiss-army knife. Unity is probably the next best thing and it struggles in terms of web publishing (getting new users to install the unity web player is still a hurdle). There's a huge community knowledge-base and a large variety of libraries and tools to aid development. There's also a huge number of designers, artists, and developers who are already familiar with Flash development pipelines and optimization (that last part is key). You can probably throw a rock and build a team of people where everyone is familiar with developing in Flash. (Plemmons 2015)

Recalling Anderson's *Imagined Communities*, if Latin was the language that allowed individuals to mediate between the earthly realm and heaven (2006, 15–16), then the code of the Software Development Kit was the script that allowed licensed game developers to mediate between droll reality and the vast expanse of playable worlds available on any one of the major gaming consoles (O'Donnell 2014, 200–202; Kerr 2006, 85). The metaphor can be extended further—hobbyists, modders, and bedroom programmers never ceased to be an active component of underground, alternative game development, but they were almost always hampered by the innumerable differences and near-complete incommensurability between the code environments they were bound to. Modders, for instance, were often confined to a single proprietary game or game engine by the very nature of their labour, which involved modifying a certain game's code or art assets so as to produce altered, enhanced or expanded gameplay experiences. By tying themselves to a

particular engine, they inherently limited the intelligibility and collaborative reach of their technical work to those who were conversant users of said game or game engine (Scacchi 2010).

During the apex of Newgrounds.com as the internet's largest virtual arcade (Salter and Murray 2015), I argue that Macromedia Flash functioned as a vernacular language; Newgrounds.com was its printing press. Rather than reach for the graphical splendour, "Flash spread out to colonize each possible mechanic which could be realized using simple mouse and keyboard input. The constraint of not having access to specialized controllers or hardware forced developers seeking to use Flash to develop accessible games" (Salter and Murray 2015, 2). As Flash games grew in popularity and power, fans of the form became increasingly willing to follow Flash developers from the realm of free online games into the untested waters of premium releases (Urameshi21 2003).[26] It was precisely the power of these playful, game-centric, collaborative imagined communities bound together by an adherence to a widely-available vernacular language which allowed alternatively-produced games to populate alternative for-profit distribution platforms and rapidly rise to prominence (O'Donnell 2014, 242–245). Newgrounds.com games did not feature state-of-the-art 3D graphics, but their creators' propensity to craft compelling gameplay experiences more than made up for their low polygon count. In sum, the lessons learned and communities formed around Macromedia Flash and Newgrounds.com were a major factor in allowing indie games of the 2006-2010 period to slip the yoke of obscurity and emerge into the wider playing public consciousness as a viable commercial alternative to mainstream AAA releases.

Super Meat Boy and the Newgrounds.com Community

For many interested observers, *Indie Game: The Movie* (Pajot and Swirsky 2012) was a watershed moment in indie development culture. At the time of the documentary's filming in 2010, Johnathan Blow's critically acclaimed puzzle-platformer game *Braid* (2008) had already been on the market for approximately two years. Tommy Refenes and Edmund McMillen's *Super Meat*

[26] I grabbed the following quotation from the forum post in which Fulp announced that Alien Hominid was going to be released on consoles – the replies in the thread were loaded with fans asserting their intention to purchase the game at earliest possible convenience. I just picked one of the first ones – Urameshi21 said: "Hell Yeah! I'll be getting that Game for sure…" (Urameshi21 2003). Countless other similar forum posts can be found at http://www.newgrounds.com/bbs/topic/77665.

Boy was in the final days of production, and camera crews were present to chronicle the game's official launch on October 20th, 2010. Polytronic's *Fez* (2012) was still in development. Despite its attention to the developers' personal stories, *Indie Game: the Movie* elides *Super Meat Boy's* communitarian origins.[27] The forces which conspired to bring Team Meat into being can be traced back to the 2004 release of a game called *Alien Hominid* (2004) on home consoles. Just like *Super Meat Boy*, *Alien Hominid* was a 2D side-scrolling platformer designed to evoke classic late 1980's video games. Both games featured humorous, cartoonish hand-drawn art styles, and both games were frustrating, over-the-top remixes of classic game mechanics, tropes, and culture. The console versions of *Alien Hominid* (2004) and *Super Meat Boy* would later go on to become critically-acclaimed commercial hits, *but both started out as games developed exclusively for Newgrounds.com*. In their original incarnations, both *Alien Hominid* (2002)—developed by Newgrounds.com founder Tom Fulp and community member Dan Paladin—and Team Meat's *Meat Boy* (2008), were small, self-contained Flash games uploaded to Newgrounds.com. Shortly after each game was released, their respective popularity propelled them to the top of Newgrounds.com's weekly, monthly, and then yearly 'best of' and 'most played' charts. Presently, *Meat Boy* (Bluebaby, dannyBstyle, and Musician 2008) has been played by roughly 8 million people, and fully 20 million unique visitors have tried their hands at *Alien Hominid* (DanPaladin, TomFulp, and FDA 2002). It was not commercial ambitions and deep marketing budgets that made the games instant hits, but rather their creators' respective mastery over a blend of playful homage, critique, and remix, all reified as part of a carefully-crafted game experience (Bluebaby 2009b). In short, both of the aforementioned games were perfect for the Newgrounds.com audience, whose voting power, strength of community, and word-of-mouth eagerness were responsible for propelling the games far beyond the normal boundaries of collaborative Flash community.

Neither *Alien Hominid* nor *Meat Boy* were developed with a home console or PC release in mind. In the case of *Alien Hominid*, PlayStation 2 porting only began after one of Fulp's acquaintances approached him and offered to produce the game via his company 'The Behemoth.' For their next game, *Castle Crashers* (2008), The Behemoth opted to license music directly from

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[27] I would like to make note of the fact that *Indie Game: The Movie* does make passing reference to the fact that *Super Meat Boy* started out as *Meat Boy*, but the reference is brief, Newgrounds.com is not mentioned by name, and only those who are already familiar with Newgrounds.com would recognize the curt, 1-second, title-less shot of *Meat Boy* in its original context.

artists who had posted their work to the Newgrounds.com audio portal—Fulp has since posted a list of the audio tracks licensed for the game that Newgrounds.com visitors may freely listen to at any time (Fulp 2008). Similarly, Team Meat only began considering a console version of *Meat Boy* once Nintendo and Microsoft had approached them about the possibility of bringing *Super Meat Boy* to consoles. Despite not being formally affiliated, Team Meat's closeness to and affinity for the Newgrounds.com community shows through in their game: characters from *Castle Crashers* can be unlocked and played as, and an entire zone of *Super Meat Boy* is *Alien Hominid*-themed. Finally, both of the games mentioned in this paragraph were developed using Macromedia Flash and were commercially released to consoles and PCs as Flash-specific .SWF files (Mike 2009). The similarities between these two games are more than mere coincidence; despite being separated by six years, the two games were developed very much in conversation with one another and the Newgrounds.com community.

In Anderson's account, common discourse emerges as a result of an accessible language supplanting the primacy of exclusive, restricted language (2006, 38–39). This common discourse need not be based in a formal, codified language; games can also serve as a vernacular. O'Donnell has discussed games-as-vernacular in *Developer's Dilemma*, wherein he identifies the practice of 'game talk,' and describes it as such:

> Games dominate the language of both work and play for gamers and game developers alike, but this is not a mechanism to keep others at bay or explicitly exclude. This vernacular works because games provide discursive resources for developers trying to describe abstract game concepts, like game mechanics. Because there is no 'discipline' of game development, games themselves have become a kind of *lingua franca*. (O'Donnell 2014, 42)

In the context of the closed, secretive AAA industry, developers feel separated from those who play their games and audiences are not permitted access to the knowledge, languages, tools, and networks necessary to create their own games on an equal footing (O'Donnell 2014, 171). By way of contrast, 'game talk' (O'Donnell 2014, 43–44) was at the centre of many game-centric communities in the early 2000s, and it lay at the core of the discourse that Newgrounds.com facilitated and mediated. Much of this discourse referred to the community's shared experiences with certain digital games. The presence of this common discourse also brought two separate

subject positions—audience and creator—closer together, blurring the distinctions between them, facilitating crossover, and providing entry points for newcomers (Luther, Fiesler, and Bruckman 2013; Salter and Murray 2014, 74). Those who chose to play Newgrounds.com games, comment on them, and interact with both developers and other community members were contributing to this discourse. As such, games uploaded to Newgrounds.com contributed to a larger conversation—this much is evident in Team Meat's decision to take up shared community symbols by directly including *Alien Hominid* and *Castle Crashers* references in *Super Meat Boy*. Community members were also able to (and, often, chose to) respond to popular flash games and videos with flash creations of their own, many of which inadvertently started entire 'movements' of creation and counter-creation (Fulp 2015b).[28] In this case, Flash's accessibility and the learning resources Newgrounds.com made available were key in helping hobbyists and first-time developers make creative contributions. The more robust and inclusive this common creative discourse was, the more valuable Newgrounds.com became, not only economically, but also as a hub for coordinating various forms of expertise (Banks 2013, 123), as a repository for accrued knowledge, and for facilitating collaboration (Luther, Fiesler, and Bruckman 2013).

Not only was Newgrounds.com committed to sustaining and supporting an actively creative community, it was the community itself which imbued creative achievements, participation, and shared symbols with meaning, intelligibility, and value (see: Guevara-Villalobos 2011, 3; Luther, Fiesler, and Bruckman 2013). In *Super Meat Boy* artist Edmund McMillen's view, Newgrounds.com was an indie organization:

> ***Adam:*** *I noticed, you guys are indie, but I'm seeing the Newgrounds logo everywhere. What's up?*
>
> **Edmund:** That shit is indie, dude!
>
> ***Adam:*** *No I know, but is Tom Fulp and his beautiful hair helping you out in any way?*

[28] I'm referring here to a popular set of flash cartoons collectively referred to as 'Phoenix Wrong.' Originating on Newgrounds.com, they involved taking clips of audio from other media (usually television shows or films) and synching characters from the Phoenix Wright: Ace Attorney games to the audio. Fulp describes the series as such "AshfordPride most likely set out to make a single spoof on Phoenix Wright: Ace Attorney, for the DS. Instead, he launched a movement of pixelated spoofs" (Fulp 2015b)

> **Edmund:** Tom and his beautiful hair has always helped us out. … We've both known Tom for forever, and Tom runs the one portal that is totally against any kind of censorship, and is open for everything. Tom is the one who sponsored the original prototype and got us where we are now. (Adam, Edmund, and Tommy 2010, sec. 0:55–1:25)

Not only is McMillen claiming that Fulp's direct support was critical to *Meat Boy's* success, he also makes note of Newgrounds.com's commitment to sustaining an unfettered (if highly problematic) common discourse. The imagined community sustained by this discourse—specifically, the one which played, talked about, built levels for, and shared experiences they had playing *Meat Boy*—contributed to *Super Meat Boy's* commercial and critical success. This is evident in the years leading up to *Super Meat Boy's* 2010 launch; McMillan (under the alias 'Bluebaby') used Newgrounds.com to post regular updates on the game's progress, press coverage, his life, and other projects he was collaborating on with a variety of Newgrounds.com community members (Bluebaby 2009a). Newgrounds.com users would comment on these news updates, and McMillan can be seen personally replying to some of the more incisive, supportive, inquisitive, or critical comments (Bluebaby 2010a). In Gamasutra articles and Newgrounds.com posts, Edmund can also be seen trying to comport helpful knowledge and lessons from his experiences as a game developer; several of his posts offer detailed advice for those who want to follow in his footsteps by starting their own indie studios (Bluebaby 2009b; McMillen 2009). Most of the comments his posts received were supportive of McMillan and his projects; many expressed excitement about *Super Meat Boy's* imminent release alongside their enthusiastic intention to purchase the game and to exhort their friends to do the same (Bluebaby 2010a). Not all comments, however, were positive. Some balked at what they saw as an attempt on McMillan's part to wring value, publicity, or money out of his fans and the Newgrounds.com community. Although in the minority, a handful of commenters focused on criticizing McMillan for releasing *Super Meat Boy* as a for-profit commercial title, which represented a shift away from his history of uploading critically-acclaimed creations to Newgrounds.com for free (Bluebaby and Glaiel-Gamer 2008). One particularly bellicose community member wrote:

> Do you know what would be nice and honest? If you gave super meat boy [sic] out for free, but what's an artist without some kind of monetary incentive right? Because art is all about money? Is it for the console exposure

> so that more people will see and enjoy your "art"? ... Are there any true artistic "indie gamers" left? Or is everything just for monetary incentive now? The Indie game development community sickens me, and I used to kind of look up to you as an artist. But I feel latley[sic], you've just been milking meat boy for monetary incentive, and "fame", sacrificing any sense of art for goals of climbing the corporate ladder. (DarkBlazerX 2010)

McMillan bluntly replied "you're an idiot" (Bluebaby 2010b); not an altogether unfair response. One might dismiss DarkBlazerX's as a misguided internet troll, but his comment—and others like it—show how any publically-displayed commercial intent, no matter the extent, can present a liability for indie developers.

Conclusion

In the final chapter of his book, Casey O'Donnell laments how the culture of secrecy which pervades mainstream game development largely prevents developers from talking to one another: "frank discussion of day-to-day game development practice is difficult to find. Game developers have no sense of professional identity, because so many feel so disconnected from one another" (2014, 274). O'Donnell positions the corollary—open, accessible common discourse—as the means by which the game industry will mature and a shared sense of professional identity will emerge (2014, 165). In this section, I have argued that communities such as Newgrounds.com have been sustaining just such a common discourse around creativity, inclusivity, and game talk since 1995, at least. Newgrounds.com was the basis for an imagined indie community which informed and supported the development and release of several well-known indie games. The stories behind the creation of these games have gone on to influence how contemporary indie developers position themselves relative to their work, to fellow developers, to communities, and to the games industry as whole. Evan's relationship to *Super Meat Boy*, McMillen, and Newgrounds.com is but one example: other collaborative communities, such as those comprised of modders (Scacchi 2010; Sotamaa 2010) and homebrew developers (Deeming 2013), have also had a marked influence on

the rise of indie communities as we know them today.[29] For some, indie development was and is a hobby: an inherently worthwhile activity to be supported by other forms of labour (a day job, most commonly). For a growing number of contemporary developers, however, indie games are at once a calling, a job, a passion, and a living. In the chapter that follows, I will explore how these developers deploy identity and community in order to manage and justify the risks inherent in founding a start-up indie studio.

[29] Amongst the evidence I have for this is a section of a talk given by Daniel Menard, Double Stallion CEO, programmer, and Execution Labs alumni; in his talk, he claimed that his company originated in communities of modders working on projects together. Execution Labs, in this case, was what convinced him and his team to quit their day jobs and move convert their modding hobby into full-time indie development work. (Menard et al. 2015)

CHAPTER 5 — SUPPORTING INDIE LABOUR

In order to counteract the mainstream game industry's secret society syndrome, O'Donnell argues that "developers must become more accessible. They must begin to think of themselves collectively rather than as individuals or individual studios. A sense of 'the profession' and culture of the game industry must become something that people actively engage with and consider" (O'Donnell 2014, 165). In the previous chapter, I argued that the union of Flash and Newgrounds.com, and the creative common discourse that they sustained together, formed the basis of an imagined indie community. Where Flash was once one of the only freely available options,[30] Indie developers now enjoy (initially) free access to a range of professional-quality development tools such as Unity, Gamemaker, and Unreal Engine. Similarly, indie developers and fans now connect with one another through a loose latticework of websites (such as Gamasutra.com), social fora (Giantbomb.com), and accessible marketplaces (as in Kickstarter and Steam Greenlight). Just as with the Newgrounds.com community, 'game talk' still occupies an indispensable role in contemporary indie discourse, but as the business and practice of starting and sustaining a start-up development studio moves to the centre of the conversation, these new conduits for creativity, collaboration, and discourse are making it possible for "rapidly growing numbers of people to think about themselves, and to relate themselves to others, in profoundly new ways" (Anderson 2006, 37).

The communitarian, collaborative, open-access nature of imagined indie communities draws clear and significant differences between indie development and mainstream AAA development. Nevertheless, indie game development remains an especially precarious form of labour in the context of an already risky and uncertain games industry. In recent years, wider imagined indie communities rooted in accessible common discourses have emerged as an interrelated body of alternative development practices. Rather than acting as a panacea for the game industry's ills, indie development practice is burdened with a set of challenges and risks distinct from those experienced in the mainstream industry. In this chapter, I will draw on the

[30] Albeit illicitly.

ethnographic work I conducted at Execution Labs in order to explore how indie developers are embodying what I have termed 'indie labour,' and how XL is endeavouring to support their labour.

Indie Labour

Like venture labour (Neff 2012), indie labour is a strategic response to the risks faced by those who work in creative and innovative cultural start-ups. Unlike venture labour, which situates financial success as a *sine qua non* of the entrepreneurial drive (Neff 2012, 16), indie labour avoids or downplays economic motivations. Instead, indie labour relies on a communitarian ethos (Guevara-Villalobos 2011) and a commitment to a particular creative vision (Lipkin 2012, 14; Kogel 2012). Game developers who are seeking to start a video game studio face a multitude of risks, but three of the most acute are: 'gap jumping,' or the risk of failing to attract sufficient funds to develop a particular project to satisfactory completion (Kerr 2006, 80–86); performance risk, or the risk of a product failing to achieve retail 'success' (Kerr 2006, 65–66); and creative risk, or the risk of innovative or new ideas not being well-received (see: O'Donnell 2014, 153)

Like venture labourers, indie labourers manage risk through talk (Neff 2012, 67); indie labour employs discursive strategies which bracket financial and monetary risks by relegating cash flow, wages, and financial payoffs to the status of means to an artistic or creative end. Conversely, indie labour frames the opportunity to take creative risks as desirable. Innovative efforts that fail are treated as learning experiences, whereas innovative successes are recast as opportunities for sustainability, reinvestment in the studio, and, thus, the opportunity to take more creative risks (Whitson, Simon, and Della-Rocca Forthcoming). By bracketing financial risks, indie labour privileges a studio's ability to take creative risks.

Indie labour is a form of labour that recognizes the importance and contributions of people and activities that would not otherwise be traditionally considered 'part of the industry.' When developers strike up a personal conversation with fans, reviewers, commentators, or other developers on Twitter, they are embodying indie labour. When developers get in touch with a YouTube personality or Twitch streamer to publicly play and critique their game, they are embodying indie labour. When a group of developers take it upon themselves to start a regular community meetup, showcasing local projects from small studios, they are embodying indie labour. When developers invite their community to talk about what they would like to see in their

game, and then implement it, they are embodying indie labour. By exhibiting a communitarian ethos, indie labour taps into a broad, heterogeneous imagined community comprised of gamers, streamers, journalists, commentators, community leaders, and other developers. As such, those who embody indie labour view their efforts as an investment in both their studio, as well as the broader imagined community.

At the heart of indie labour lies the tension between artistic vision and commercial intent. By specifically framing their labour in relation to community and creative vision, indie developers are limited in their ability to take on opportunities that might be deleterious to their standing in the community, even if said opportunities might help them live up to their aims as a studio. As such, part of the work involved in indie labour constitutes balancing capital-generation activities with the potential impact such activities might have on a community's perception of the studio or project. Indie labour also involves mitigating or framing success: many in the indie community see studios that become too financially successful as undeserving of the indie label. As such, successful studios must find ways to frame their successes as opportunities to reinvest in the studio, project, or community—or abandon their indieness.

Financial Risk

For the most part, start-up indie studios lack recognizable brands, massive production and marketing budgets, privileged access to industry networks, a dedicated following, or robust structural support mechanisms (O'Donnell 2014, 174–177; Downey 2015; Short 2015a). This puts indie developers at a distinct disadvantage when vying for visibility against AAA and established mid-range studios: "as an indie dev, you are David to the world's many Goliaths, taking a risk because you must. Because just existing is a risk" (Short 2015a). Moreover, progressively shrinking barriers to entry, ushered in by development software Unity and distribution platform Steam Greenlight, have led to a dramatic increase in the number of indie games being released each month (Galyonkin 2015; West 2015; Short 2015a). This has made it much more difficult for indie studios to draw commercial attention to themselves and their projects. Tanya Short, creative director for Montreal's Kitfox games, had this to say about the overcrowded market:

> A good game isn't good enough. There are more and more and more games for sale. And in my opinion, more and more of them are good. Whether it's

> Steam, PS4, or the App Store, there are more games coming out per month than ever before. Games are easier to make than ever before, and little companies like Kitfox are creating higher-quality games than would be possible for them even five years ago. **It's exciting to me creatively, but it's terrifying financially.** (Short 2015a: author's emphasis)

As a result of these economic conditions, indie start-ups are forced to confront three acute risks: 'gap jumping,' or the risk of failing to attract sufficient funds to develop a particular project to satisfactory completion (Kerr 2006, 80–86); performance risk, or the risk of a product failing to achieve retail 'success' (Kerr 2006, 65–66); and creative risk, or the risks inherent in developing and testing new, innovative ideas (see: O'Donnell 2014, 153). Though these risks are individually experienced, they are social phenomena: the way that developers, media, and opinion leaders frame these risks in speech, writing, and creative output influences how they and others perceive and manage said risks (see: Neff 2012, 4). Thus, even the seemingly private, individual decision to start or join an indie development studio is invariably "shaped and informed by collective forces" (Neff 2012, 5).

The developers I spoke to at Execution Labs often bracketed financial risks by framing them as unimportant, a necessary part of the industry, or as being worth the opportunities they afford. By discursively bracketing and downplaying financial risks, Clairvoyant's Dieter emphasized the importance of having opportunities to take creative risks; to work on an innovative and artistic indie game was intrinsically valuable enough to justify financial uncertainty:

> **Dieter:** If you really want to make an original exciting game that has a new idea, don't go to a big company. That's not how it works. … You can strike out by yourself, or you can work for a smaller company; a smaller company where it's safer to take risks, or it's normal to take risks, and it actually pays off to take risks. That's rewarding, that's good. … It's been a strange year. For one thing, I'm not getting paid. … It's a sacrifice – it's a situation where there is no income, there's only money going out. I feel like it's been worth it for me in a lot of ways. God forbid, if it really comes down to a situation where sometime in the near future … I have to take another job at a big studio or something, at least I will have kind of remembered, I'll have a little bit grounding, and I won't have a nervous breakdown and say "AAHHH MIDLIFE CRISIS! This is all terrible! What

> am I doing in this terrible industry!? AHH I hate it!!!" Because I'll have this as an example that things can go well, things can be good.

Other Execution Labs participants choose to bracket financial risks by embracing a rhetoric of sustainability, wherein any revenue would be used to pay wages and reinvest in the studio in order to allow them the opportunity to keep making indie games. Two examples from separate interviews follow:

> **Minerva:** We do see ourselves as more of a boutique or lifestyle business. It's not about making it big and selling it off to someone else – it's about being able to pay the bills on a day-to-day basis and pay everybody a fair wage. When we can do that, we'll feel like we've made it. When we know we're not scrambling to find out where the funding for the next game is coming from… It's really basic, but to me, that's enough.

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> ***Pierson:*** *What does it mean to be successful, to you?*
>
> **Serge:** Sustainable amount of income that we can continue to build our games, and also visibility. If we had overall worldwide visibility, and people know who Off-Grid is, and we have enough money to make our games, that, to me, is successful.

Even small infusions of cash dramatically improve indie start-ups' chances of seeing their first projects through to completion. Financial assistance can allow some indie developers to hire extra help, run crowdfunding campaigns, apply for grants, attend exhibitions, and market their projects effectively. For others, funding can mean keeping themselves fed, clothed, and housed while they work. At Execution Labs, the process of releasing a first game and going on to become a self-sustaining studio was referred to as "Jumping the Gap." Throughout the cohort, it was arguably the topic which Voltron and the Execs concerned themselves with most; if teams could secure external funding, they'd likely jump the gap. If not, their chances in the post-XL context would be comparatively poor.

As part of the winter 2015 pre-production accelerator program, Execution Labs made $50,000 of operating funds available to each of the accepted teams. Teams were free to claim any amount of the $50,000. XL's equity share of each company would scale with the proportion of the

funds used—anywhere from 6% if no monies were claimed, up to 14% if the entire sum was expended ("Accelerator | Execution Labs" 2015). In practice, all of the teams in the winter 2015 cohort claimed the entire amount, and all of them credited the influx of cash with a marked improvement in the quality of their game, their marketing strategy, convention schedule, or funding campaign. Off-Grid was alone in using it to hire an additional artist and a community manager; all the other teams used the money to bolster other funding efforts. Some were compelled to by the scale of their project; Gregory's team, for instance, would have likely been unable to continue producing their game without securing a stable source of additional production funding over the long term.

> **Gregory:** We are starting a project, and we need to get it funded. I look at the games of the other studios, it's all something they could do on their own. We're trying to make something that will take years to develop, and we do not have the means to do that.

Each of the teams employed some form of strategy in an attempt at ameliorating the financial risks they faced. One strategy involved teams seeking development deals with publishers. In Aphra Kerr's typology of the game industry, she describes third-party, or independent studios, as reliant on signing publisher deals in order to secure development funding (2006, 80–82). Unfortunately, the games industry has changed significantly since the publication of Kerr's book:

> **Astrid:** Publishers are no longer like 'Here's all the money to make the game,' but they're usually coming in later in the game development process, they want to play a build first, they want to get various types of pitches, and see your business plan and things like that.

Even if an indie studio can secure a deal with a publisher, the terms of the deal might amount to a poison pill. In many cases, a publishing deal "comes at the cost of relinquishing some control of the project, and frequently the rights to the IP of a project to the publisher" (O'Donnell 2014, 186). Aside from compromising the indie studio's core autonomy and creative freedom, publisher deals can also rob studios of publicity, reputation, and potentially loyal fan-bases:

> **Jake:** As an indie dev, the biggest thing is that we build loyalty to our brand ... If we went with [Publisher] Activision, let's say, Activision would put themselves in front, and they're going to gain all the loyalty, and not us.

> That wouldn't help us. Sure, maybe we secure enough to do the second game, but it's still going to be a struggle to sell the second game, unless it's a direct sequel and through the same publisher.

That said, the Execution Labs participants intimated that 'good' publishers do exist, and that Execution Labs has been instrumental in introducing them to potential partners:

> **Jake:** The other thing we wanted to get out of this was the contacts, because that's huge. The contacts that have come through, even just within Montreal, there are all the business contacts and all the other organizations, government agencies I didn't know about, now I know about them, and they know us! … And then at GDC, they introduced us to a bunch of different publishers, and a few contacts, a couple who are interested in us.

The support services Execution Labs provided were described as beneficial to an indie studio's bargaining position in publisher negotiations. In this case, Voltron member and game analytics expert Lysianne had provided valuable assistance to Anton's team:

> **Anton:** We were talking with a couple mobile publishers before, and they were interested in what we're doing, but they said that we need to get some metrics before we start working with you. Just some general 7-day, 30-day retentions. … We think [Execution Labs is] the most probable way of us getting the best metrics possible.

Another strategy involved the use of crowdfunding, using platforms such as Kickstarter or Indiegogo to solicit financial support from fans in return for copies of the game and other miscellaneous rewards. Unfortunately, just as in the case of the indie game market, there is a general perception that Kickstarter is no longer capable of single-handedly providing game projects with sufficient funding. I first encountered this attitude while I was sitting in on a series of meetings Clairvoyant was holding with a wide cast of local studio owners, investors, and publishers. I was initially taken aback by Jake's claim that Kickstarter should be thought of as a social media website, and not as a source of development funding, but his claim was consistent with other general trends in indie development, wherein the bar for quality and completion were being pushed ever higher. Now, a Kickstarter campaign based on a compelling concept was no

longer sufficient—audiences and the press alike would be looking for advanced-stage playable demos or nearly-finished products.

> **Astrid:** To me, Kickstarter is a marketing tool.
>
> ***Pierson:*** *Which is really surprising when I heard Clairvoyant talking about that, it's the first time I've heard of people recognizing Kickstarter as being for something other than funding…*
>
> **Astrid:** It's not for funding anymore. And even still—the only people who can use it for funding are ones who are famous enough that to them it is essentially marketing because they get free press. It's like 'oh, the oatmeal is doing a Kickstarter campaign.' that's basically, he doesn't have to do marketing for his game now.

For example, Nightwatch attempted to raise $150,000 in a month-long Kickstarter campaign. They were asking the public to provide them with less than $1/6^{th}$ of the funds they knew they would need to complete their ambitious project. Even then, due to a lack of pledged funds, their campaign had to be cancelled.

Another strategy for securing major development and production support involved securing funds directly from grants and government agencies. In the winter 2015 cohort, two teams opted to apply for production and development funding from the Canadian Media Fund (CMF). The CMF holds annual competitions for Canadian teams creating experimental, innovative interactive media content or software applications (Canada Media Fund 2015a). Although the competition for each funding round is fierce, the CMF's contributions are considerable; depending on a project's needs and stage of production, the CMF will contribute up to $1.2 million. All CMF grants, however, are given as 'recoupable investments.' This means that once released, the CMF takes a share of the project's profits until the full amount of the CMF's funding commitment is recouped by the agency. This share caps at 50% of all profits (Canada Media Fund 2015b).

For the cohort's Canadian teams, the CMF was an alluring prospect which could help them access the kinds of funds they needed to subsist and properly support the development of their games. During the winter 2015 cohort, two teams applied for CMF funding. In both cases, the application process was arduous, but useful. XL staff and participants alike argued that by putting together the CMF application, developers were forced to refine how they understood their own

game project, as well as how they articulated it. Voltron member Astrid, whose experience with and expertise on CMF applications was incredibly useful to the applicants, claimed:

> **Astrid:** I think that the amount of information that the CMF requires for funding qualifications is stuff that the teams - every game studio should be doing. And they never do it until they do it for the CMF, and they go—'ahh, this is really great to have.' Throughout the rest of the game development process, there's a constant referral back to your CMF documents. It forces you to make at least a vague marketing plan ... finding out comparable products on Steam and price comparisons and random business model stuff. The CMF forces you to do your due diligence about whether this product exists somewhere else, having all your legal documents in place.

Cohort member Dieter echoed these sentiments:

> **Dieter:** The CMF experience was fantastic. ... There are [limitations] on the word count that really force us to narrow down what we need to explain our product is, to the point where you KNOW what the product is. Even if we had a vague idea of it before, now I could sit anyone down, and explain to them what our game's about, why it's different from everyone else, why it's significant. ... I know Jake and I afterwards, we came out with a different kind of feeling about what it is that we should be building than when we went into it. ... Yeah. Even if we don't get the grant, this has improved the game. It's definitely a great tool for that. ... If you're not forced to do it in this kind of way, you don't have that same kind of imperative. It's one thing to have someone telling you 'you should think about this.' And you can sit there, going 'yeah, another thing to add to the list, that I should think about.' It's another thing for someone to say 'I won't give you any money unless you tell me in 350 words how your game is going to be innovative in the design perspective.' That's very specific.

In both cases, Execution Labs greatly helped the teams' application efforts. Astrid, in particular, actively assisted both Nightwatch and Clairvoyant:

> **Gregory:** The Canada Media Fund, for instance. … Execution Labs working on that certainly helped. But we'll see if that help actually brought me anything concrete – I'll see if I get it in June.

Ultimately, Gregory's effort and Execution Labs' assistance did the trick: in mid-June, Gregory and his team were awarded the full amount they applied for.

Execution Labs plans to record all participants' funding applications, publisher pitches, and Kickstarter campaigns—successes and failures alike. As cohorts pass through its accelerator programs, Execution Labs will begin to accrue a database of reference documents that future cohorts will be able to access, learn from, and turn to their advantage.

Creative Risk

Indie labour brackets and downplays financial risks in order to emphasize the ability to take creative risks, to innovate, and to push the boundaries of games, both as an industry and a medium (see: O'Donnell 2014, 153). To Anton, this focus on innovation and creative risk is integral to the indie identity:

> **Anton**: The industry doesn't yet comprehend how deeply indies revolutionized game-making. 2008-2009, you'd be hard-pressed to find more ingenious ideas of game design on the app store than anywhere else. … To me, AAA games try to be really wide, and really shallow. So there's lots to do, but not a lot to do with. But indies are very narrow games that can go very deep. So you have a very narrow specific problem, and you can do a lot of stuff with how the problem is presented to you.

At times, a lack of financial payoff was framed as an inevitable precondition of pursuing a creative goal. This is a widespread opinion—popular columns giving advice to indie developers would often warn that indie games needed to be thought of as artistic endeavours; few indie developers would be successful enough to live entirely off of their games alone, and those that could were unlikely to tap into comfortable brackets of profitability (McMillen 2009; Bluebaby 2009b; Woodrow 2014; West 2015; Sheffield 2015). This rhetoric was also employed in the context of Execution Labs—creative goals were described in terms of artistically expressive or innovative products which rejected commercial motivations:

> **Dieter:** "Games are for profit. If there's a more profitable version of a game, then that's the one you should be making. And if there's a better model out there, then we should copy that model." Those aren't necessarily the things that produce the best art. So I tend to think of indie game developers as being closer to artists than artisans.

Indie labour's creative objectives need not necessarily be bound up with artistic expression. Some of the developers at Execution Labs framed their creative objective in terms of the studio or the organization itself:

> **Gregory:** Being indie, just like being an entrepreneur, is a means to an end. The end, in my case, is not to get rich, it's to be part of a development culture that is different. If I could have found it somewhere else, I would have gone there, instead of building it myself.

Breaking into uncharted creative territory is an inherently risky prospect; when testing out untested ideas, failures are to be expected. Indie labour involves framing creative risks and the risk of failure as an opportunity to glean value from setbacks (Whitson, Simon, and Della-Rocca Forthcoming). In a recent public GDC presentation, developer Ashely Zeldin argued that failure stories should be allotted a more prominent position in common indie discourse:

> All of us here in this room have failed. By design, the iterative process of making games involves failure. We consider a concept, we implement that idea, we follow the feedback, we fix the failure, we improve that idea. So, I'd like you all to raise your right hand and pledge to talk about your failures; specifically, what you learned from your failures, and what kept you going after your failures, because the independent games space has a problem with failure. When all we read and hear about are successes, that creates unrealistic expectations about the viability of independent game development. (Zeldin 2015)

Execution Labs provided such opportunities to rebound and learn from failure and setbacks:

> **Anton:** In terms of personal goals, I think what I'd really like to know is whether what we came up with sinks or swims. So, in terms of recognition and feedback, if what we're doing and pouring 15-hour-a-day

shifts into actually makes sense, it's the highest reward that I could possibly imagine coming out of this.

Pierson: *Obviously you want one outcome over the other, but you're interested to see through it either way?*

Anton: Yes. Yes. Even if we fail flat completely, like nose first. Obviously coming from a start-up background, there's a mantra, at least in Europe: they're saying fail often, fail better. Even if we crash and burn, I have complete confidence in the knowledge that we got here—and that we will get here—is going to be the best possible bounce for our next project.

One of the XL staff members even framed failure as a necessary step on the road to success. His logic was that if indie developers get lucky a few times without experiencing true hardship, they will be worse equipped to cope with it when their luck runs out. Conversely, the teams which have experienced failure early and often quickly accrue the knowledge and resources necessary to hedge against future failures, and are thus more likely to learn constructive lessons from setbacks, but also to be able to pick themselves back up and move on:

Derek: They're indies, you want them to be indie, and part of being indie is being super creative and trying new things and taking risks and failing.

Execution Labs and Imagined Indie Communities

In the absence of formal social safety nets and institutional support, venture labourers and indie labourers alike turn to networks and communities for support (Neff 2012, 6–7, 101). Venture labour uses networking as a strategy for managing employment uncertainty; in Neff's account, networks are described in terms of their usefulness for finding new jobs should workers be laid off, have their firm collapse, or desire change (2012, 115). Imagined indie communities, by way of contrast, are cast as sources of inspiration, co-creative exchange (Banks 2013), feedback, publicity, collaborative potential, knowledge sharing, financial assistance, discursive fora, and emotional support (Guevara-Villalobos 2011). On more than one occasion, indie identity was described in relation to the automatic connection XL developers felt with other developers, and how communities acted as sources of assistance and support:

Evan: For indie developers, everyone talks to each other. Everyone helps each other. … I would have a really hard time leaving the community here, because it's kind of insane how much everyone helps each other.

At times, the community was described as a local phenomenon, specific to the geographic assemblage (Joseph 2012) of Montreal, which facilitated collaboration and, ultimately, the beginnings of many a local indie studio:

Pierson: *You met Jake, how, exactly?*

Minerva: I crashed the Spearhead Christmas party! **Laughter**

Pierson: *Spearhead! Oh okay!*

Minerva: Just to meet people, because it was on Facebook, and I was like 'oh, okay,' I can network more for the blog and my freelancing stuff. And yeah, we just started talking, turns out we spent time from Vancouver—turns out, we're both actually from the same town. He grew up three or two blocks from my high school and stuff. …

Pierson: *So you met Jake, and things evolved from there?*

Minerva: Yeah, he kind of sold me on the project. We were getting ready to do the Square-Enix collective; at that time, I was just a contract worker. And that ended up doing really really well, and he was like 'y'know, I need to kind of solidify the company, and I'm thinking of applying to Execution Labs, I'm really happy with the work you did… Do you want to be a co-founder?'

In other settings, the imagined community functioned akin to what Neff describes as a 'social circle' (Neff 2012, 109), allowing practitioners to identify each other, even if they aren't connected to or familiar with one another in any other way. The work that social circles do is vital, as they allow practitioners to organically determine who and what is and is not legitimately part of an industry, community, or circle. In so doing, "they define what the industry is, a process that is exceedingly important for the production of artistic, creative, and cultural goods and services" (Neff 2012, 110). The imagined indie community functions globally, and without prior links, as another one of Minerva's fortuitous experiences at GDC shows:

Minerva: I got to meet the developer of a game we consider a competitor, called Armello, and they're from Melbourne [Australia], and I would have

> never gotten the chance to meet them, if we hadn't have gone to GDC. And they were incredibly about our project! Just spewing Kickstarter advice at me, and like - 'let me know, we'll do a shout-out,' blah-blah-blah!

Minerva is not alone in feeling a boost from connections made. Orlando Guevara-Villalobos describes indie development as an inherently communitarian practice; a collective and mutually-assistive response to the risk and uncertainty that indie developers face in the context of 'post-Fordist' economic conditions (2011, 2–3). By exhibiting a communitarian ethos, indie labour taps into a broad, heterogeneous imagined community comprised of gamers, streamers, journalists, commentators, community leaders, and other developers. Off-Grid secured an extremely lucrative contract with a famous YouTube personality by participating in community-run game-creation jams.[31] In return, indie labour frames development efforts as investments in broader imagined communities. For some, community is the *raison d'etre* of indie labour:

> **Evan:** Success would be people really enjoying what I make, I guess. I had some art recently, some fan art that I put up on Giantbomb, and I had a bunch of people comment on it in the forums, and I replied to everyone, and someone made the comment that 'wow it's really cool to reply to everyone.' ... Just having people say that: 'hey, what you did is really cool,' then I'm completely satisfied with what I did.

In other cases, Execution Labs participants described their commitment to community in terms of their connection to the people who would play and enjoy their games:

> **Jake:** I wanted [to make] a game ... It's a slower-paced game so you need to actually think about it and you're engaged by the choices you make and the events that happen that are driven by the player, they'll stick in your mind and you'll talk about it with your friends and generate friendships and communities.

Execution Labs—and the teams it plays host to—are heavily invested in the creation and expansion of imagined indie communities, both locally and worldwide. Locally, Execution Labs

[31] 'Game Jam' refers to a game making practice wherein a number of game developers are brought together—usually physically, but at times, virtually—and are grouped up into teams. These teams are then tasked with creating a small game prototype in an extremely short period of time: usually 1-2 days over a weekend.

serves as a locus of interchange for various forms of knowledge, capital, and expertise. Not only does Execution Labs play host to a wide variety of community-focused events and/or groups—such as the Pixelles Incubator ("Blog | Pixelles (Montreal)" 2015)—it also offers developers the opportunity to working spaces with other indie development teams. Teams from the winter 2015 cohort recognized the value in this:

> **Jake:** But it's also really cool being in here, now I know Gabe, the community manager for Off-Grid, where, okay, eh knows a lot of people and I can freely talk to him about stuff and that's awesome!
>
> ***Pierson:*** *You find that valuable, just being able to walk over and talk to other people doing stuff in the space?*
>
> **Jake:** Oh, yeah yeah.

According to John Banks, organizations must find ways of accepting and accounting for multiple forms of both professional and non-professional expertise and creativity in a 'non-zero sum' way (Banks 2013, 114). In Banks' figuration, this requires the development of 'trading zones'—points of intersection where value (of both economic and cultural varieties) and experience can be collaboratively developed and exchanged for mutual gain (2013, 130–131). Critically, Execution Labs is subject to multiple simultaneous valuations of the work they do. On one hand, expanding imagined indie communities increases the resources available to XL participants and alumni; it is also one of the primary methods by which Execution Labs will recoup its operating expenditures. Execution Labs' motivations cannot, however, be reduced to a set of self-interested rationales—Voltron and the Execs also attribute non-monetary value to communities of developers. As such, Execution Labs values its ability to support and expand imagined developer communities, even in cases where they might not benefit financially.

> **Jason:** I think the difference in terms of coming to North America—and especially Montreal where the industry is really advanced—there's all kinds of resources and tools and learning opportunities and networking events, they've just never seen that before. So I think it's a tremendous opportunity for them, and it will serve well for those communities back home where they can bring some of that knowledge. Less so serve as ambassadors for us, but more so now serve as community leaders to help, on the whole, advance the local community. Because they came out here,

sponged up a bunch of stuff and now they're bringing that back to their communities to help advance their systems.

Pierson: *This might be a bit high-minded, but to you personally, if they go back to [Eastern Europe] and bring back the lessons they've learned and the ethos they've picked up, and nothing's come out of either of those companies, is that still a success for you?*

Jason: Yeah, for sure. If we can contribute, at a meta-level, to the success of independent studios, then that's… That doesn't put a dollar in our pocket, but just from a karmic point of view, that's a good thing.

At the core of this investment lies a commitment to accessible common discourse, knowledge sharing, collaboration, and mutual support. In XL alumnus Talia's view, this is one of the major ways indie studios can mitigate their disadvantages relative to larger players in the industry:

Talia: I think all of their teams are really cool! So just from a personal selfish standpoint, I want to be connected to them, and I want them to feel like they know me and that they can talk to me, and if I can help them in any way, I'm interested in that. I believe that indies—the only thing we have on big companies is kind of the fact that we can work together and not compete. We do, in theory, compete a little bit, but I think our collaboration is much more valuable.

Pierson: *That's a really interesting point - you say that's the one big leg up you have on big companies…*

Talia: That's one of the many! We have a few advantages, actually! But I'd say that's one of the big ones.

Execution Labs is also building bridges between indies and AAA studios by inviting guest mentors to travel to Gameplay Space, meet the teams, listen to their pitches, and offer advice. On sum, the teams have found the presence of mentors to be very useful and informative:

Evan: There was a lot of times where I was like 'oh, that person is actually going to be super useful because they're offering a very precise type of feedback or mentorship.'

When I asked operations manager Behrouz about professional mentors' willingness to donate their time and efforts to coaching Execution Labs teams, he responded:

> **Behrouz:** What I've heard multiple times from the mentors is that they're getting more out of this than the teams are. One, teaching is kind of cool when you don't do it very often. It flexes muscles that you kind of took for granted, so you have to think kind of differently. Also, for the mentors, they're getting to see five, six teams that are doing things completely differently from how they do things, so it just opens their minds up to different possibilities. … If anything, it might strain not the mentors themselves, but the companies the mentors work for, in the sense that we're already starting to get some flak from Ubisoft or Ludia. [One mentor], when he came here for firehose day, he was like 'I love this. Not only do I get to meet all these other mentors and challenge them and talk to them, and just shoot the shit, I get to meet the teams, I go back to Ludia and his argument for Ludia is "this is training for me - I'm learning more than I'm giving. I'm not sharing company secrets and time; it's valuable!"' Ludia doesn't see it that way obviously, and Ubisoft is seeing it less and less. **Companies want to stay secretive to a certain point, whereas that's completely against our DNA. The more collaboration there is, the better.** *(Author's Emphasis)*

Even when guest mentors justify their excursions to XL by couching their time spent in the language of value creation, larger development companies remain leery about the prospect of distributing knowledge and experience. Mentors from smaller companies or indie studios, however, are burdened by no such restrictions, and find immense value in the opportunity:

> ***Pierson:*** *I've seen you around - you seem like one of the more willing participants who's been called back to participate as a mentor and at firehose days and stuff like that… How has it been, for you, being in this post-XL milieu, is it still helpful for you to be hooked up to this network? Is it not too much of an imposition to be called in to do things?*
>
> **Talia:** Yeah, that's part of it - it's that it's not a big deal. It takes up an hour here and there, and sometimes an evening. They haven't been too demanding, so I'm happy to do what I can. But part of it is also that the

> network is still useful! I don't need it all the time - that's how networks are, right? You just have occasional 'oh, I need to talk to somebody about this.' You have that; a lot of my network is coming from XL, and lot of it isn't. The point is, even now, if I have a new need, like for example, maybe I want an oculus rift DevKit or whatever - I know they sell those, but if I have a question about something, and I don't know anybody, they know a lot of people, so it's to my advantage to keep up on that for sure.

O'Donnell describes the confluence of industry secrecy, proprietary knowledge, closed platforms, and the ubiquitous Non-Disclosure Agreement as a 'Foundational Memory Loss System' (2014, 206). This system prevents developers from sharing knowledge, tips, workarounds, advice, or emergent solutions with other developers, ensuring that those entering the industry or developing on a new platform will be forced to blindly and inefficiently adapt to new technical or processual demands. "If developers allow themselves to maintain the existing structure where only those who have already 'figured it out' are authorized, they will continue to get more of the same: inexperienced developers who reinvent the wheel, grow frustrated, and leave" (O'Donnell 2014, 165). Even with the emergence of universal all-purpose game engines and development tools such as Unity, the impact of hegemonic secrecy in the industry (O'Donnell 2014, 75) is still preventing mainstream developers from benefitting from open development platforms:

> Game developers are often desperate to find more information about how others develop games. ... I asked a group of game developers who were all working on the Nintendo DS, 'How many of you have written an XML parser for the DS?' Nearly every engineer in the room raised their hand. (O'Donnell 2014, 206)

Most of the engineers O'Donnell spoke to could have used a non-proprietary XML parser, if they had enjoyed access to one. The culture of secrecy, however, meant that most handmade solutions or useful tools are never shared or spoken about, isolating teams and forcing each of them to needlessly recreate solutions (O'Donnell 2014, 74). By way of contrast, Execution Labs is comprised of localized Unity-based developers for whom secrecy is a non-issue, and knowledge sharing is an intrinsic element of their practice:

> **Evan:** Working in the same space as a bunch of other indies, it's like 'Hey, I have a problem and you guys work with this plugin in Unity, do you have

> a solution?' The constant interchange of ideas. It's really core—just the position that it puts you in in the industry. So many doors just open up, and for a team that's just starting out, that's so so so useful.

Rather than functioning as a 'foundational memory-loss system' (O'Donnell 2014, 206), Execution Labs itself serves as an adaptive memory-retention system. Technical workarounds and solutions are made readily available for those who need them. XL teams' CMF funding applications are preserved so that others may learn from them. Video and slideshows of the Voltron University lectures will be made freely available online. The lessons learned from past successes and failures will be preserved in the practices, protocols, and understandings embedded within the imagined community.

At the heart of indie labour lies the tension between artistic vision and commercial intent. Neither impetus is fully separable from the other; John Banks (2013, 77) argues that there is little point in sustaining typologies which frame the two patterns as diametrically opposed. Nevertheless, indie developers are limited in their ability to take on opportunities that might be deleterious to their standing in the communities they create and are a part of, even if said opportunities might help them live up to their aims as a studio. Indies who sign deals with corporate or commercial entities, for instance, might be seen as 'selling out' (Newman 2009, 19). As such, indie labour also involves framing financial success in certain ways. Many in indie communities see commercially-minded or financially successful studios as undeserving of the indie label:

> **Minerva:** Indie can be a billion different things. Some other independent people might say that we're not indie enough. It's that kind of thing where we're business focused, we're part of XL.
>
> --
>
> **Ash:** I would say that an indie company is… I think it's stupid… But it's small for me, and first games, for me.
>
> ***Pierson:*** *So like a start-up?*
>
> **Ash:** Yeah, start up. It's more like that. When you become big, I don't know, 40 employees, 50, it becomes more of a big… Well… More of a studio than an indie. It's just like a start-up - having to pay people with rev share and when you have no money and you don't even pay yourself…
>
> ***Pierson:*** *The start-up mentality, flying by the seat of your pants…*

Ash: Yeah, because people use indie a lot. When you have a few successful titles, you're not allowed to say anymore that you're an indie. Team Meat is not indie.

Part of the work involved in indie labour constitutes balancing capital-generation activities with the potential impact such activities might have on a community's perception of the studio or project. For commercially sustainable indie studios to remain a part of indie communities, many frame their successes as an opportunities to further their creative goals, thus releasing more content back into the community:

Pierson: *You might be making a bit more than that in the near future!*

Ash: Yeah maybe but maybe not… Because the money that we're going to make we're going to put in the company just to survive even longer… But we're not having more money. That's how we're going to do it.

Another way in which indie developers do this is by 'giving back'; this involves sharing accrued knowledge, experience, and data with imagined indie communities. This activity takes place in a variety of on- and off-line settings, including developer meetups (Guevara-Villalobos 2011, 8), forums and message boards (Luther, Fiesler, and Bruckman 2013, 1020), publications, blogs (Bluebaby 2009b), and presentations (Zeldin 2015), to name but a few. Although it is too early for most of the Execution Labs teams to speak from a position of being able to give back, a few developers made specific note of their desire to contribute to their communities. Here, Jake frames his own studio's financial success as a net positive for the community:

Jake: Hopefully, we'll be successful, and they can recoup some of their costs and be able to fund more teams, in the future, create more locally, internationally… Whatever! Win for the game industry, I think, so that's cool!

Similarly, Execution Labs encourages teams to share workarounds, solutions, and helpful tools programmed in-house. Take, for example, the following conversation from a Slack thread:

lysiane [10:34 AM] Ash developed a tool to render heatmaps in Unity ☺ Ask for an apk and give us data!

keith [11:11 AM] oh wow...will he share it?

astrid [11:12 AM] If they are going to make new tech like that they can probably get IRAP money

keith [11:12 AM] true

lysiane [12:16 PM] I strongly recommended him to make a post on Gama + make it available through Unity Asset store + share with XL's teams. He will wait until he is sure it's stable though. Right now, he has only 1 player (him) generating data ☺

astrid [12:23 PM] Awesome possum, good advice on all those fronts!

pejman [1:25 PM] that's good, glad he finally did that ☺

Voltron members and executives from Execution Labs are encouraging Ash—one of the programmers and co-founders at Off-Grid—to freely share the tool he developed on Gamasutra.com and through the Unity Asset Store, provide the tool directly to the other Execution Labs teams, and apply to Canada's Industrial Research Assistance Program (IRAP) for technology development funding (Government of Canada National Research Council 2012).

Far from the balkanizing effect of secrecy culture, Execution Labs' focus on open knowledge sharing and company-agnostic collaboration is helping indie start-up companies and industry veterans alike. In so doing, XL is laying the groundwork for direct collaboration and communication between individual developers, regardless of the company they work for; this is a major step towards creating or strengthening the shared sense of profession that O'Donnell called for (2014, 165). Open access to a common discourse, at least in the context of Execution Labs, has generated considerable goodwill and a desire to 'pay it forward' on the part of those who have participated:

Jake: Since I've been planning on leaving Ubisoft over a year ago, and building all of this stuff up, it's been interesting about how easy and candid people are about wanting to help others out. And that's super great, because through my career I've been helped out by a lot of people, and so it's cool that they're also helping out, and I want to do that exact same thing. I'm going to give a talk to Pejman's class next week.

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Talia: We didn't have this long track history, we didn't have a serious project in mind, we really had almost nothing, and they still took a chance on us, because Jason [Della Rocca] knew me, and I swore I would do my

> damndest and whatever, but it was really... I don't think most people would have done that, so it's both professional and personal. I feel like I really really want them to succeed, and I want their kindness to be repaid.

Conclusion

In the closing pages of her book, Gina Neff calls upon those working within emerging start-up fields to "find ways to support venture labour, so that innovative and creative jobs can also be stable and good jobs" (2012, 165). This chapter related some of the ways Execution Labs is supporting indie labour, alongside developers' expression and embodiment of that labour. Rather than respond to risk by buying into narratives which favour pursuing 'the next big thing' (Neff 2012, 94) in hopes of stumbling into 'sudden wealth syndrome' (Neff 2012, 97), indie developers frame their work in terms of sustainability, collaboration, mutual assistance, and adherence to a creative vision. Indie developers do this by imagining themselves as belonging to a community of developers and fans, and by inviting others to join this community. By providing resources, space, and 'trading zones' (Banks 2013, 130) for facilitating the productive exchange of expertise and capital, Execution Labs is helping to create and sustain an imagined indie community.

CONCLUSION — PLAYING THE LONG GAME

With the recent ascendance of digital distribution and free-to-use development tools, indie developers now enjoy unprecedented access to formerly restrictive game industry networks. This thesis has argued that a recognizable body of alternative development practice has adopted a strategic response to the considerable risks and uncertainties start-up indie studios face —I have termed this response 'indie labour.' This thesis began by highlighting pertinent elements of Gina Neff's (Neff 2012) and Casey O'Donnell's (O'Donnell 2014) work on venture labour and the mainstream game industry's 'secret society syndrome,' respectively. The remainder of the first chapter outlined recent scholarly work with indie identity. The second chapter introduced the locales and people who comprised indie accelerator Execution Labs during my time there as an embedded researcher. The third chapter described how I approached my research in light of the Execution Labs research project's collaborative nature. In the fourth chapter, Evan's intriguing interaction with the now-legendary *Super Meat Boy* developers served as a starting point for an exploration of early indie development and how it was informed by communities built on code and game-based vernacular communication. The fifth chapter opened by positing a definition of 'indie labour'—a strategy developers use to bracket financial risk and emphasize innovation and the pursuit of creative vision—and showed how Execution Labs is working to support indie start-up studios. In this, the concluding section, I will ruminate on questions surrounding indie labour's openness and accessibility, as well as the concept's applicability to other cultural sectors and media forms. I will also point to future directions for research in this area and discuss the limitations of this thesis.

As a concept, indie labour is but a preliminary attempt to reconcile numerous, multiple, messy, and—at times—contradictory accounts of 'indieness' and what it is to embody and perform 'indie.' By focusing on risk and allowing for a very broad consideration of what 'creative vision' might entail, the concept was able to account for developer narratives that might have otherwise seemed antipodal. This permitted a close consideration of disparate communities that, while sharing important linkages with one another, resisted my other analytical attempts. Unfortunately, Indie Labour's conceptual adaptability was won at the expense of a very serious limitation—it almost completely avoids charting the terrain of valuations and denunciations (see: Neff 2012, 70–71) implicit in developer understandings of what it means to be indie. For example, a lone

developer releasing non-commercial artistic games might balk at the prospect of embodying similar labour to a team of 10 developers creating the next for-profit games—and vice versa. It remains to be seen if indie labour as a concept can be expanded or adapted so as to productively sustain these contestatory accounts of indie identity.

Another of this thesis' salient omissions regards the recent technological developments which have afforded indie developers unprecedented access to formerly restrictive game industry networks. Development platform Unity, in particular, resonates with the suggestion that common discourse lies at the heart of every imagined community. During my research, every single developer working out Execution Labs and Gameplay Space alike were using Unity to develop their games. I suspect that Unity's apparent ubiquity in indie development causes it to play a similar vernacular role as Macromedia Flash did in the context of Newgrounds.com. Similarly, distribution platforms such as Steam Greenlight, funding platforms such as Kickstarter or Patreon, and social platforms such as the Square-Enix Collective all exert influence on how audiences and developers alike understand and engage with indie labour: interrogating their technical, economic, and social affordances and constraints will add critical nuance to our understanding of indie development practice.

Although the concept of indie labour was written primarily in response to game developers' experiences, I have endeavored to leave the definition open enough to be easily adaptable to other cultural sectors. In spite of this flexibility—or perhaps because of it—I am beyond certain that there are a host of flaws with the concept: the people I spoke to, the writing I read, and the theories I considered constitute but a spare fraction of the total work that has been produced on game development, indie identity, precarious labour, the new economy, and community dynamics. As such, I hope others who read this work challenge my analysis by evoking elements, experiences, or work that I did not consider; nothing would please me more. Accounting for a greater range of perspectives can only help us understand the commonalities than run between the numerous understandings of indie cultural production—within and across media forms.

A remarkable amount of work also remains to be done with regards to other imagined communities which inform indie game development practice. In his work on modding communities, for instance, Olli Sotamaa shows that many modders view their non-commercial work as a potential way to land a game industry job. In this case, modding work was valuable as part of an applicant's portfolio when applying to a development studio (Sotamaa 2010, 13). These

communities of practice, however, have also produced studios which have jumped directly to commercial indie development, bypassing the mainstream industry altogether: this was the case with Execution Labs alumni team Double Stallion. Using Indie Labour as a starting point, future scholars can trace how communities built around websites, game engines, discontinued consoles, homebrew games (Deeming 2013), and other media forms have influenced, contributed to, or drawn from indie development practice.

For all the potential openness, accessibility, and collaborative potential it brings, indie development practice remains unequally challenging and precarious. Indie development demands that entrants have some form of a social safety net, be it family, savings, friends, a community, etc. (Neff 2012, 7). When speaking about their decision to 'go indie,' Many developers (XL and otherwise) would claim that they 'had nothing to lose.' Throughout my field work, I repeatedly encountered another discursive formation developers used to manage risk: the prospect of rejoining the AAA industry. Many of the XL developers, such as Gregory and Evan, asserted that they still had a position at a larger company waiting for them, should their indie journey prove fruitless. Others, such as Dieter and Jake, built up considerable personal cash reserves which they used to support themselves—and, to some extent, their companies and coworkers—while they struggled to get an indie start-up off the ground.

The risks associated with investing oneself and one's resources in an indie start-up are dire enough when money alone is on the line. For those with a lot to lose, the price of admission may simply be too steep: "age and domestic responsibilities define patterns of access and participation" (McRobbie 2008, 519, cited in; Neff 2012, 121). People with dependents, the differently abled, or those who cannot afford to live without a steady income for the better part of a year; everyone who does not have some form of financial cushion for themselves and those who depend on them will have a very difficult time justifying and managing the risks implicit in indie labour. This effectively closes doors to many who might otherwise choose to start or join an indie studio.

Despite some recent progress, game development spaces remain decidedly gendered; women are often absent or discriminated against (see: Fisher and Harvey 2012; and Allaway 2014). One of the more integral indie company development and community-building tasks involves hitting the conference circuit—a series of international events where developers display their games, pitch their studios, drink copious amounts of alcohol, and attend parties in the hope of making productive connections with publishers or other developers. Drinking events, according to

developers and Execution Labs staff alike, are responsible for the most important connections, the best ideas, and the most lucrative collaborations (Whitson 2013). This, however, presents a serious barrier to those who are less able to attend beer-soaked networking sessions:

> While some ladies, and family people, and older people, and non-drinking people may also like to hang out in spaces that provide beer and networking late into the night, there are surely less of them. And this is an issue. If you don't drink, or don't like beer, or have a family life that limits the amount of time that you can hang out after hours drinking, then you are unintentionally excluded from the informal decision-making network of the industry. (Whitson 2013)

In the opinions of those I spoke to, the conference circuit was indispensable as a networking and marketing opportunity—one which was marred and made problematic by the role of alcohol:

> **Minerva:** I feel I need to speak to the point that, while the parties were potentially really productive ... the open bar thing, I did get kind of manhandled a couple of times. You know, it was okay, I laughed it off, but one time it led to a connection with someone from Montreal, because they were at the party, and they saw it all kind of happening. We kind of shared a look. Afterwards, they came up to me and said 'you are a very patient woman.' I was like 'you do what you can,' he was like 'wow, it must really suck to be a woman in the games industry sometimes.' It's more it sucks being a woman alone at a party with an open bar. I think that's how I would categorize it. ... I think without the open bar, it wouldn't have been an issue, honestly. Because the people who did get weird and touchy with me were the very inebriated ones.
>
> ***Pierson:*** *That's abhorrent.*
>
> **Minerva:** There was one guy who dragged me away from my mac'n'cheese. It was BACON MAC'N'CHEESE, MAN! And he dragged me away from it to go dance with his buddy!

The role of alcohol is but one of "of the hidden structures that—unintentionally and without malice—work to reinforce a lack of diversity in the industry" (Whitson 2013); it contributes, in

part, to an environment in which women are systemically excluded.[32] Even in Execution Labs, the gender disparity was obvious: from January to June 2015, out of a group of between 26 and 30 developers,[33] only 3 female-identifying or female-presenting developers (to my knowledge) were present in the space on a full-time basis. In that same time period, there were 8 full-time Execution Labs staff,[34] 3 of whom were women.

As a community partner, Execution Labs has proved responsive to some of these concerns. It has already made its resources available to other community groups, such as the Pixelles Incubator—a local non-profit organization that helps women make games and influence game culture ("Blog | Pixelles (Montreal)" 2015). In terms of funding, Execution Labs offers similar financial investment as other 'angel investors,' such as the Indie Fund ("Indie Fund" 2015); many such organizations only recoup funds from the investee's retail profits, somewhat lessening the potential costs of production or product failure. Execution Labs, for instance, only begins to take a cut of a company's revenue after the team has made $500,000 after tax and recoverables from publishers/investors ("Accelerator | Execution Labs" 2015). These are steps in the right direction, and with deeper and broader funding sources, indie labour will become a possibility for a greater number of developers.

There may be other remuneration models that help indie labourers support themselves. Montreal-based developer Henry Smith recently proposed that rather than supporting developers by purchasing their games, indie communities support indie labour directly by funding developers as they work in exchange for freely-distributed final products free of in-game purchases, advertising, or digital rights management (Hengineer 2014). Smith's suggestion is reminiscent of crowdfunding platform Patreon, a website which allows audiences to directly support creative labour by feeding monthly contributions directly to developers; some indie developers have already turned to Patreon instead of—or in addition to—product-focused Kickstarter campaigns (Hengineer 2014; Fox 2015). According to many observers I spoke to, indies have been responsible for revolutionizing how developers, games, and their players relate to each other. I see

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[32] The example I use—alcohol—is but one of many, many factors which contribute to the systemic exclusion of women in game cultures and game industries. It is, unfortunately, beyond this thesis' scope to consider them in depth.
[33] Depending on how one tabulates the developers in the space—not only did the number of developers amongst the XL teams fluctuate over time, but there were also teams of developers in Gameplay Space who were not part of the XL cohort proper. All of the non-XL developers were male-presenting or male-identifying (to my knowledge).
[34] Three executives, four Voltron members, and the office manager.

no reason why this revolutionary potential would not apply to financial concerns; imagined indie communities may be poised to fundamentally restructure creative labour's relationship to the cultural economy (Kerr 2006, 44, 119).

In 2012, Dr. Whitson observed that "game incubators, accelerators, and other resources… are still too new to gauge whether they can help create indie micro-studios that actually provide a living wage for their developers" (2012, 126–127). Even three years on, any definitive pronouncements are almost undoubtedly premature. That said, the Execution Labs model is beginning to attract considerable interest from groups in other cities who want to iterate on it. This is understandable, given Execution Labs' run of recent success stories; Nightwatch secured enough money to see their ambitious game near-completion, one famous YouTuber's fan community has propelled Off-Grid's recent release to the top of both Google and Apple's bestsellers charts, a host of alumni teams have 'jumped the gap' and stayed afloat, and XL continues to facilitate promising conversations between the remainder of the winter 2015 cohort and a number of potential publishing partners. In the meantime, Gameplay Space has swelled to include over 70 full-time and part-time developers and has become a bustling hub of XL alumni and other local indie start-ups (Gameplay Space 2015; Atlas 2015).[35]

It was almost exactly one year ago today I first stepped into Execution Labs; from where I'm sitting, it isn't showing any signs of slowing down. As I write this, huddled away from the mid-November chill in a cozy Verdun café, the XL Slack chat is buzzing off the proverbial hook as Voltron and the Execs mull over potential recruits for the upcoming winter 2016 cohort.

The grand experiment continues. Further bulletins as events warrant.

[35] Richard Atlas, a Gameplay Space member, describes it thusly: "Clever Endeavour Games works in a shared workspace called the GamePlay Space, here in Montreal. It's awesome for all sorts of reasons which I won't get to now, but one of the main ones is that we're surrounded by professional, experienced teams who really know their stuff" (Atlas 2015).

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APPENDIX A – SEMISTRUCTURED INTERVIEW PROMPTS

Initial Interviews:

1. Background – How did you get into games?
2. Why apply? – What led you to XL?
3. What did you expect?
4. What is it like so far? Surprises? Is it meeting your needs?
5. Personal goals with the Project? Future plans?
6. What does it mean to be an indie?
    a. How do you identify an indie studio?
    b. Is your studio an indie studio?
7. What are you learning from XL?
8. Are there sacrifices involved in 'going indie'?
    a. What did you give up to join XL?
9. Why wouldn't you want to work at a AAA studio?
10. What would you like your minimum salary to be?
11. How would you define success in this industry for yourself?
    a. How will you know you've made it?

Post-Mortem Exit Interviews:

1. *Questions from Initial Interview section, if not already asked in prior interview.*
2. Success
    a. For you, how do you measure success?
    b. Are you and your studio at that point yet?
    c. How does your measure of success compare with Execution Labs?
3. Sustainability
    a. What is sustainable development?
    b. Are you close to this?
    c. Was Execution Labs helpful in this regard?
4. Failure

    a. What would be a sign that your game failed?
    b. What would be your next move?
5. Legitimacy
    a. *(Improvised based on respondent's answers to previous questions)*
6. What did Execution Labs teach you? What did you learn while here?
7. What was your most valuable experience?
8. What was your worst day during these last three months?
9. Best day?