AGENTS AT WORK: DECISION MAKING CAPACITY AND CREATIVE LABOR

IN NETWORK SOCIETY

By

NADAV D. LIPKIN

A dissertation submitted to the
Graduate School-New Brunswick
Rutgers, The State University of New Jersey
In partial fulfillment of the requirements
For the degree of
Doctor of Philosophy
Graduate Program in Communication, Information and Library Studies
Written under the direction of
John V. Pavlik
And approved by

_________________________________
_________________________________
_________________________________
_________________________________

New Brunswick, New Jersey
October, 2016
This study explores workers’ abilities to make decisions in and about their work within the creative industries in network society. It expands upon existing studies of workers in creative industries using a case study of the professional independent game making community in New York City to explore relationships between decision making capacity and various aspects of labor. These aspects include the ways in which workers relate to each other and to firms, technologies, and ideologies, and how they are situated within the broader context of labor in geography and the economy. This research serves to address key tensions in prior analyses of creative labor that describe that work as sometimes agentic and other times deprived of agency in network society.

The study finds that decision making capacity is a multifaceted resource at a worker’s disposal. Like financial or social capital, it can be acquired and depleted, but it can only be effectively analyzed in regards to the worker as an agent within a networked context. This research suggests that “creative industries” as a term is too broad for a discussion of decision making capacity in most situations. Particularly, worker decision making capacity is greatly affected by the desirability of a given job within the economy, which contributes to considerable differences in experiences of decision making capacity.
between cultural labor and non-cultural creative labor. Decision making capacity is also affected by the extent of a worker’s independence within the labor assemblage. Workers who are more independent may have greater or lesser decision making capacity, depending considerably on the costs associated with performing a particular job and initial costs of becoming independent.

This research also suggests that while workers in creative industries may be working longer and less predictable hours inside and outside of traditional working spaces, workers’ decisions to work precariously can sometimes be deliberately and rationally chosen to serve specific objectives, such as meeting deadlines or collaborating with distant partners. This is particularly the case with workers who are independent and hold responsibility for choosing when and where to work. The experience of decision making capacity for such workers contrasts with experiences of more traditionally employed workers in creative professions who may be working precariously under some degree of influence from their employers.

The study additionally finds that while workers in many creative industries are largely un-unionized, decision making capacity is often positively affected by a number of communities and institutions that often replicate the benefits of unions. This is particularly the case with independent workers who, by virtue of independence and the legal properties of unions in the United States, may not be able to unionize like traditional workers have in the past. Workers gain decision making capacity through emerging professional associations that may fill gaps left in the absence of traditional labor unions as well as formal and informal collaborations online through websites and social media.
This research encourages a nuanced approach to discussions of agency for workers in creative professions. It encourages future studies to view decision making in economic and ideological terms together, considering how a worker’s context encourages certain work strategies. This study also suggests a turn away from attempts to study creative labor in such broad terms and advocates for policy measures that address specific factors that deprive workers of decision making capacity. This also means recognizing situations in which causes of worker distress derive from aspects of work that policy is not positioned to adequately address, such as high job desirability, accessibility to skills, and ease of product creation.
ACKNOWLEDGEMENTS

I want to thank all of the people whose insight, guidance, expertise and encouragement have helped me create this dissertation. I want to thank all of the members of my committee, John Pavlik, Mary Chayko, Jack Bratich and Jesper Juul, for their considerable assistance. I want to especially acknowledge Mary Chayko and Marie Radford for their guidance and support in difficult times during the process. Without the input of my entire committee and all of the faculty at the School of Communication and Information, I could not have completed this work.

I also want to acknowledge all of the members of the New York City independent game making community, those I interviewed and those I did not. Not only do you work hard and produce amazing and inspiring games, but you have also been tremendously open and welcoming. As a community, you exemplify how workers should treat one another and it has been an honor to meet you all.

I would also like to extend a special thanks to all of my friends inside and outside of the doctoral program. Not only have our interactions helped enrich me as an academic, but I also cannot understate the importance of the moral support I have gotten from attending Wine & Cheese throughout the years.

I also offer thanks to my family for their moral and material support throughout my life. Even if you can’t understand anything I write, I appreciate your enthusiasm attempting to read it.
Lastly, and most importantly, I want to thank my wife Sam. Words cannot express how much I value your friendship and love, your tireless support, and your appreciation and understanding during these many years. I can only hope to give back half of what you have provided for me during this time in the many years to come.
# TABLE OF CONTENTS

ABSTRACT OF THE DISSERTATION ...................................................................................... ii

ACKNOWLEDGEMENTS ................................................................................................. v

TABLE OF CONTENTS .................................................................................................... vii

CHAPTER 1: Introduction ................................................................................................. 1

| Chapter overview ........................................................................................................ 4 |
| Literature review on the creative industries ................................................................. 8 |
| The Network Society .................................................................................................. 11 |
| Changing labor in the creative industries ................................................................... 13 |
| Creative labor and mobility ....................................................................................... 17 |
| Time and creative labor ......................................................................................... 21 |
| Nonmonetary incentives in creative labor ................................................................. 24 |
| Creative labor and the social safety net ..................................................................... 27 |
| Social isolation and creative labor ......................................................................... 29 |
| Analytical methodologies in studies of creative industries ....................................... 32 |
| Cultural labor ........................................................................................................... 35 |
| Oversupply in the cultural industries ....................................................................... 36 |
| Risk and response ..................................................................................................... 39 |
| Independent Cultural Production ............................................................................ 42 |
| Is independent a meaningful term? .......................................................................... 46 |
| Independents in creative industries literature ......................................................... 48 |
| Video Game Production ............................................................................................. 50 |
| Video games compared to other creative and cultural industries ......................... 51 |
| A brief history of video games ................................................................................. 52 |
| Distributing video games ....................................................................................... 56 |
| Training and entering the industry .......................................................................... 58 |
| The independent sector ............................................................................................ 59 |
| The study of labor in video game development ....................................................... 63 |

Methodology .................................................................................................................. 66
Decision making capacity

Assemblage theory

Understanding and comparing decision making in assemblage theory

This research in context

Data collection methodology

Professional versus non-professional labor

Chapter breakdown

CHAPTER 2: Independence

Liberated but isolated

Independence and knowledge gaps

Interdependence in theory and practice

Independence and undesirable work

Independents in the creative industries

Independents and the restructured corporation

Technology and the freedom of independence

Conclusion

CHAPTER 3: The Meaning of Money

More money, more choices

Financing independence

Agency and pay-to-work

Strategizing around the need for financial capital

Working outside the industry

Family and social support

Venture capital and external funding

Government and other assistance

Crowdfunding

Independent earnings

Desirability of cultural and non-cultural creative labor

A case study in labor and commodity value: the Indiepocalypse in New York

Conclusion

CHAPTER 4: Time and Place

Work hours: free will or exploitation?
<table>
<thead>
<tr>
<th>The future of choice and creativity</th>
<th>285</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPENDIX A: Case Study Overview and Terminology</td>
<td>287</td>
</tr>
<tr>
<td>APPENDIX B: The Labor of Independent Game Making in New York City</td>
<td>290</td>
</tr>
<tr>
<td>Game Development</td>
<td>291</td>
</tr>
<tr>
<td>Programming languages</td>
<td>291</td>
</tr>
<tr>
<td>Game engines</td>
<td>293</td>
</tr>
<tr>
<td>The expressive component of development: choosing your tools</td>
<td>294</td>
</tr>
<tr>
<td>Subjectivity and preferences</td>
<td>299</td>
</tr>
<tr>
<td>Tool selection and marketability</td>
<td>300</td>
</tr>
<tr>
<td>Platform selection and available tools</td>
<td>301</td>
</tr>
<tr>
<td>Deciding without authority: superiors and clients</td>
<td>304</td>
</tr>
<tr>
<td>Learning new development tools and skills</td>
<td>306</td>
</tr>
<tr>
<td>Empowering opportunities for learning game development</td>
<td>309</td>
</tr>
<tr>
<td>Deciding how to learn: The expressive axis</td>
<td>312</td>
</tr>
<tr>
<td>Game Design</td>
<td>314</td>
</tr>
<tr>
<td>The “materiality” of game design</td>
<td>315</td>
</tr>
<tr>
<td>Technology and independent game design</td>
<td>318</td>
</tr>
<tr>
<td>The expressive component: when designers can’t design</td>
<td>319</td>
</tr>
<tr>
<td>Collaboration and independent game design</td>
<td>321</td>
</tr>
<tr>
<td>The ineffable qualities of game design decision making</td>
<td>323</td>
</tr>
<tr>
<td>Interaction between design and development</td>
<td>324</td>
</tr>
<tr>
<td>The role of the producer on game design decision making capacity</td>
<td>325</td>
</tr>
<tr>
<td>Inspiration as expression: copying, references and design decisions</td>
<td>326</td>
</tr>
<tr>
<td>Learning to be a game designer: everyone can do it, sort of</td>
<td>328</td>
</tr>
<tr>
<td>Learning from experience</td>
<td>329</td>
</tr>
<tr>
<td>Learning design from the archives</td>
<td>331</td>
</tr>
<tr>
<td>Game design and the advanced degree</td>
<td>332</td>
</tr>
<tr>
<td>Game design overview</td>
<td>333</td>
</tr>
<tr>
<td>Project management, or the Work of the Producer</td>
<td>334</td>
</tr>
<tr>
<td>The work of managing projects</td>
<td>335</td>
</tr>
<tr>
<td>Business methodologies</td>
<td>336</td>
</tr>
<tr>
<td>Learning to manage</td>
<td>338</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>Project management overview</td>
<td>339</td>
</tr>
<tr>
<td>Distribution Management</td>
<td>340</td>
</tr>
<tr>
<td>Options for distribution: the digital route</td>
<td>340</td>
</tr>
<tr>
<td>Online distribution: the work no longer needed</td>
<td>343</td>
</tr>
<tr>
<td>Online distribution: the work that remains</td>
<td>345</td>
</tr>
<tr>
<td>Physical distribution</td>
<td>348</td>
</tr>
<tr>
<td>Selecting a distribution option: having no choice</td>
<td>349</td>
</tr>
<tr>
<td>Distributing where the money is</td>
<td>351</td>
</tr>
<tr>
<td>Distribution labor overview</td>
<td>355</td>
</tr>
<tr>
<td>Public Relations and Marketing</td>
<td>356</td>
</tr>
<tr>
<td>Working with the press</td>
<td>357</td>
</tr>
<tr>
<td>Visibility and gaming events</td>
<td>358</td>
</tr>
<tr>
<td>The social media angle</td>
<td>362</td>
</tr>
<tr>
<td>Paid advertising</td>
<td>364</td>
</tr>
<tr>
<td>Learning PR and marketing strategies</td>
<td>367</td>
</tr>
<tr>
<td>Asset Creation</td>
<td>369</td>
</tr>
<tr>
<td>Deciding what assets to make</td>
<td>370</td>
</tr>
<tr>
<td>Deciding on style</td>
<td>372</td>
</tr>
<tr>
<td>Talent and asset creation: why almost no one makes their own assets</td>
<td>374</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>377</td>
</tr>
</tbody>
</table>
CHAPTER 1: Introduction

Instead of having the need to be somewhere and look like I’m working, I have the ability to work as I find the means and motivation to. It’s more fulfilling and it leads to some interesting situations where I can wake up and immediately get to start working on something or stay up late working on something. So, it’s more that I’m getting things done when I want to, as opposed to just according to a schedule. But, it’s also easy to slip into a rut of laziness or complacency, because there is no external motivation. It’s a tradeoff.

-X15

The contemporary Western economic system has become increasingly characterized less by manufacturing and service labor and more by what is called “creative labor.” As creative labor grows as an increasing part of the global capitalist economy, discussions on the consequences of labor conditions require more study of real communities of practice to understand often contradictory aspects of that work related to worker agency. The consequences of this changing work environment have become the basis for urban planning policies attempting to harness the supposed desires of a creative work force and driven economic policies designed to enhance it and contribute to wider economic prosperity, and yet the question remains what labor conditions in these creative professions actually mean for the workers and their capacities to make decisions about their work. Competing claims suggest this new worker is both an independent agent and an exploited subject, but the complexity of both positions and how they relate to one another require closer exploration. As Schiller (2016) explains, “We know much too little about the concrete labor that is set to work with these networked forces of production and about how this labor is organized and experienced—not only the individual jobs that are impacted but also the varied linkages among workers using digitally networked tools” (p. 11).
The goal of this research is to address this vital concern: what is the relationship between the conditions of creative labor in network society and worker decision making capacity? How do differences between the kinds of industries contained under the “creative labor” moniker affect decision making? To what extent is the capacity to make decisions at work affected by network technology and techno-social infrastructure? Lastly, what is the relationship between worker decision making capacity and political-economic independence? This research approaches these questions through analysis of the experiences of members of the New York City independent game making community in conjunction with existing studies on various communities of practice in the creative industries. The reason for drawing particularly from the New York City independent game making community is that independent game production sits at a junction of the creative industries and cultural industries. It can therefore serve as an effective means of drawing connections between creative and cultural work. By featuring independent work, this case also serves to highlight comparisons to studies of independent and traditional work not only in game production but other creative and cultural industries as well.

This dissertation reveals decision making capacity as a complex resource, one amongst many that creative laborers employ in their practice. Like financial or social capital and other resources, a worker can gain decision making capacity through access to empowering resources and structures: social events that expose workers to new potential clients or collaborators, professional associations that offer classes and expose workers to new ways to work, wealth that gives the worker the comfort to be unemployed and wait for the best possible job to become available. Workers treat decision making capacity as a resource not unlike time and money, and they may face the option to exchange resources
for each other. A worker without money but with a lot of time and decision making capacity may choose, for example, to take a stable job which provides money but takes away time and decision making capacity. Similarly, a traditional worker can become independent at the expense of financial stability and time but gain decision making capacity by no longer having to answer to an employer. Different workers have different priorities, meaning independence is more attractive and advantageous to some workers more than others. Differences not only between worker preferences for different degrees of decision making capacity but also between the industries in which worker operate contribute to what can be very different experiences of agency for workers in various industries.

Given the variability of experiences concerning decision making capacity across creative industries, the faults and complexities of what are called “creative industries” come into contrast. The “creative industries” as an umbrella term that refers to a sizeable and growing segment of the Western capitalist labor force is problematically broad in most situations with reference to decision making capacity, treating workers with divergent motivations and working conditions as though they are more similar than they are. Creative industries often divide significantly between cultural labor, such as artistic and media production, and non-cultural creative labor, like software development or human resource management. Labor in positions that are highly desirable, such as experienced most prominently in cultural work, exists in a very different kind of assemblage of economic conditions and personal motivations compared to less desirable kinds of work. This results in systematically less advantageous conditions for the majority of workers in desirable and accessible jobs as there is a tendency for the
competition for well-paid work to drive down the value of labor. This is further intensified in occupations in which the products of that work compete en masse and where some workers choose intentionally to work for free. As production and distribution of product become easier through new technology and networks, this creates dramatically different conditions for workers depending on their segment of the “creative labor force.”

Labor in the creative industries is further segmented according to the degrees of independence workers in various industries experience. Independence from dominant production schemes is experienced on a continuum of connection to and disconnection from other agents and components of the assemblage, but the effects of independence on decision making capacity in one field can be experienced very differently than in another field. This is because independent labor requires different assets in different fields, depending on costs and other barriers to independence, and different kinds of labor may require different kinds of access to resources through established industry structures. Accordingly, the decision making capacity fostered by independence for a game developer who can do a lot with a very small financial investment can be extremely different from the decision making capacity of an independent film creator who contends with a huge number of collaborators, expenses, and laws that the game developer does not have to manage because of the specific costs associated with film production.

**Chapter overview**

This chapter begins with a review of the literature conducted on the creative industries which, through analysis of the New York City independent game making community and other sources, are the subject of this research. It first explores how scholarship defines “creative industries” and “creative labor,” alongside other terms that
describe similar industries and work. Subsequently, the broader context of the research is established through analysis of “network society.” The review continues by providing an overview of what the literature proposes are the conditions that characterize creative labor, specifically changes that have occurred since the dawn of network society. Discussion and analysis of the conditions of creative labor often come in conflict between authors, and those areas of conflict are highlighted. This section focuses on the expectations of creative labor at work, mobility for laborers in creative professions, working hours and leisure time for creative workers, non-monetary incentives for creative laborers, the nature of the social safety net for these workers, and socialization amongst them. The review highlights these topics in that they are the focus of the most attention across the literature on these industries and provide necessary context for the analysis to follow in the dissertation.

The chapter continues with a review of analytical methodologies employed by research into the creative industries. This section discusses the prominence of cross-industry, large-scale statistics through surveys and national economic data as the basis for many assessments of the creative industries, though this information is supplemented by interviews in some cases. This section notes the criticism of this approach for its lack of perspective on the experiences of individual workers, and it proceeds to discuss studies that approach creative labor through qualitative and ethnographic data. This information contextualizes the subsequent discussion concerning this study’s analytical and data collection methodology which principally relies upon qualitative interviews which are then employed alongside more general statistics.
The literature review continues with an analysis of literature on cultural labor as a subsection of the broader category of creative labor. This is done to indicate areas in which literature suggests particular distinctions between the labor experience in cultural industries such as the arts and media production compared to other kinds of work. This subsection specifically calls attention to literature which suggests that cultural labor is prone to oversupply of labor and product because of that labor’s desirable properties. It also attends to discussions concerning the nature of risk and responses to risk specifically within the cultural industries that come to affect labor within them. This section serves to introduce existing discussions of potential divisions between labor in cultural industries and non-cultural industries, including non-cultural creative industries.

The review proceeds to discuss independent labor in cultural production. It begins with definitions for what independence means and engages the discussion within the literature as to the scholarly validity of independence as a meaningful term for the description of labor. The subsection continues by expanding the discussion to independent labor in the broader creative industries literature, finding comparable references to independence outside the exclusive domain of cultural work. The section concludes noting that while there is a considerable breadth of study of independent labor, there is not yet sufficient information available to effectively compare conditions of independence across industries. This subsection serves to indicate another area within the literature on creative and cultural industries in which fault lines between worker experiences may emerge, and it serves as important context for the subsequent analysis of the case study which is a community of independent cultural workers.
The literature review concludes with a review of the literature on and working practices within video game production. Given that the core research concerns workers in the independent production of video games, this section provides necessary background that highlights the existing literature concerning the production of games both within the dominant “AAA” mainstream apparatus and the independent sector which is the specific context for the case study. The section calls attention to literature that draws connections between game production and both cultural and creative labor practices, establishing how the case study can be employed to examine both kinds of work. A brief history of game production follows which provides necessary context for the discussion of the technology workers use to conduct their work. This also includes discussions of past and contemporary practices of game distribution to contextualize current practices by participants in the case study. Following this, the section examines practices of training and discussions of how potential workers enter the mainstream games industry. The review continues with an overview of independent game production literature, concluding with a review of studies of labor in the games industry, noting areas that suggest continuity with analyses of other creative and cultural labor experiences.

The chapter proceeds with discussion of the dissertation’s data collection and analytical methodologies. This begins with an explication of decision making capacity as derived from definitions of agency. The section then turns to the discussion of assemblage theory, as derived from DeLanda (2006), as the research’s principal means of describing and analyzing decision making capacity within networked subjectivity. The data collection methodology follows, with an overview of the procedures undertaken to assemble the case study of independent game makers in New York City and the
integration of other data sources. The discussion of methods concludes with a brief examination of the study’s emphasis on professional labor as opposed to amateur or hobbyist labor.

**Literature review on the creative industries**

Literature on the subject of worker agency in the modern work environment, characterized by the growth of computer networks and the increased salience of intellectual property and “creative” labor, struggles to find common ground between accounts and statistics suggesting increasing economic precarity on the one hand and positive, freely chosen work experiences on the other. Despite the number of studies looking at creative labor across industries, too few ground broad statistical data in studies of experience in specific communities. The literature suggests a series of kinds of labor industries that overlap with one another and contribute to differences in labor practices and experiences of agency.

The definition of creative labor on its own differs frequently by source and over time. The Creative Industries Mapping Document, produced by the United Kingdom’s Department of Culture, Media and Sport (DCMS) describes different sectors of the economy it wished to promote under the “creative industry” nomenclature. In its 1998 document, those industries were advertising, antiques, architecture, crafts, design, fashion, film, leisure software, music, performing arts, publishing, software, and TV and radio. Its subsequent 2001 document added art, designer fashion, film and video, and software and computer services. It defined the criteria for inclusion as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of
intellectual property” (DCMS, 2001). Subsequent writing on the subject of creative labor generally adheres to this criteria. Florida (2012) argues that the “Creative Class,” or those who work in creative industries, at its core include “people in science and engineering, architecture and design, education, arts, music, and entertainment whose economic function is to create new ideas, new technology, and new creative content” (p. 8). Whereas in the service sector, people are paid for their, primarily, physical talents, Florida argues that the “Creative Class” “are paid to use their minds—the full scope of their cognitive and social skills” (p. 9). Discussions of creative industries frequently adopt or at least refer considerably to either or both Florida’s and the DCMS’s general definitions (see Hartley, 2005; McRobbie 2002; Banks and Hesmondhalgh, 2009; Garnham, 2005; Arvidsson et al., 2010; Howkins, 2001).

What is called creative labor often overlaps with definitions of what others call cultural labor. While creative labor refers to a broader range of activities connected to intellectual property (as explicitly stated in the Creative Industries Mapping Documents), the term “cultural” refers more directly to the arts and media (Garnham, 2005, p. 16). Some authors conflate “creative” and “cultural:” Ross (2008), for instance, simultaneously refers to his subject matter as “cultural labor” while describing its workers as “creatives” (p. 32). Ross also uses “cultural” referring to professions that do not so strongly correlate with either art or media, such as “academic professions” (p. 32). Caves (2002) specifically uses the term “creative industries” in reference to “industries supplying goods and services that we broadly associate with cultural, artistic, or simply entertainment value” (p. 1). Likewise, Gill and Pratt (2009) assume the position that “creative industries” is a “political rebranding” of “cultural industries” (p. 2). Garnham
(2005) clarifies that the decision to adopt “creative” as opposed to “cultural,” at least in the United Kingdom’s New Labour party from which the Creative Industries Mapping Documents emerge, was a conscious and political one. By expanding “cultural” to the more generic “creative,” Garnham argues that politicians could shift to non-artistic industries the policies previously adopted for supporting the arts and media, spaces “based broadly on principles of patronage and enlightenment and on assumptions of an inherent opposition between art and commerce” (p. 16), applying economic logics instead. Oakley (2006) supplements this by noting the New Labour “market facing” creative industries policies’ focus on “instrumentalism,” or what the creative industries can tangibly contribute to society (p. 256). Because policy documents use “creative” as the term for this larger group of occupations which those such as Florida see as the growth industry of the future, this dissertation likewise adopts the term “creative labor” for the same industries, reserving “cultural labor” to refer to industries involved in the production of arts and media specifically.

A complexity of discussing the so-called creative industries is that other scholars have competing terminology that corresponds to many of the same occupations and industries for many of the same reasons. Lazzarato (1996) uses the term “immaterial labor” in reference to “the labor that produces the informational and cultural content of the commodity” (p. 132). He describes the “classical forms of ‘immaterial’ production” as “audiovisual production, advertising, fashion, the production of software, photography, cultural activities, as so forth” (p. 136). Where Florida (2012) sees the Creative Class taking over larger portions of the global Capitalist economy, Hardt and Negri (2004) see “The contemporary scene of labor and production… being transformed under the
hegemony of immaterial labor” (p. 65). The term differs from “creative industries” in that it describes not so much a group of industries but a type of work that, as described in Hardt and Negri (2004) particularly, exists in essentially all labor, including traditional factory or service labor, which now increasingly depends on information flows. While immaterial labor might closely overlap with the creative industries, and cultural industries especially, it is also much broader. Other terminology has appeared in the literature but not been as widely adopted, such as “network labour, cognitive labour, service labour, affective labour, [and] linguistic labour,” which Neilson and Rossiter (2005) note may sometimes substitute for one another but are not reducible to one another (n.p.).

The Network Society

Literature and policy concerning creative industries and creative labor emerge from a period roughly corresponding to the proliferation of information technology and networks beginning in the 1970’s, which Castells (1996), Wang (1999), de George (2000) and others call the Information Age. Wang (1999) specifies, “The information age is characterized by the free flow of information made possible by computer networks” (p. 23). De George (2000) supports this idea, noting the remarkable growth of the high-tech sector; he argues that the massive panic driven by the threat of the Y2K bug supports the idea that by the end of the millennium, computers and network technology have become a characteristic of the modern landscape. Castells (2005) notes that this change since the 1970s is unevenly distributed around the world but where this new technology “is society,” in his parlance (p. 3), “It can be argued that nowadays wealth, power, and knowledge generation are largely dependent on the ability to organize society to reap the benefits of the new technological system,” and the social structure “resulting from the
interaction between the new technology paradigm and social organization at large,” he calls the network society (p. 3). Castells suggests that networks, rather than information, most strongly divide this society in this specific time: knowledge and information, he suggest, have always been central “in all historically known societies” (p. 4).

In using the term “network society” to describe both the time of the so-called Information Age and the specific groups reshaped by technology and information networks over that time period, this research serves to emphasize Castells’ position, both in that the reconfiguration of labor in this time results in no small measure from the evolution of networks more than information, but also in that these changes are geographically differentiated, and not all places even within the United States experience the changes driven by networks equally. As such, this dissertation concerns itself specifically with labor in the network society: the time in which that society, according to Castells, emerges and those spaces where network technology contributes to societal change. Accordingly, the dissertation does not address crucial issues pertaining to the digital divide and how the decision making capacity of creative workers separated from contemporary technology and information networks may be adversely affected by this separation.

Reasons for the increasing relevance of creative industries and labor in network society are manifold and hazy. Howkins (2001) cites the new opportunities fostered by “the low costs of digital technology” allowing more people to compete against larger corporate forces, “redefining the concept of ‘channel’ and ‘audience’” (n.p.). Leadbeater and Oakley (1999) similarly cite the impact of cheap and effective networks for information: “These industries are growing at almost twice the rate of the economy as a
whole, driven by powerful forces: cheaper and more powerful communications and computing, the spread of the Internet and growth in digital networks, which are opening up new distribution channels for small producers to serve global markets” (p. 11).

Howkins (2001) argues, “On the supply side, automation in the manufacturing industries and, to a smaller extent, in the service industries has cut the demand for manual labour, so young people are looking elsewhere for work. Many turn to the creative industries, which may offer an attractive lifestyle and above-average economic rewards” (n.p). Bell (1973/1999) prophesizes this shift from a manufacturing-based economy to a “post-industrial” economy, remarking that “the ability to gain a greater output of goods with a similar or lesser input of labor” (p. xii) would move America from an industrial economy to one increasingly defined by services (p. xv). Florida (2012) agrees, noting the decline in manufacturing jobs replaced by creative labor and service labor (which he says emerges “in large measure [as] a response to the demands of the Creative Economy,” p. 47). Howkins (2001) adds that while demands for labor in manufacturing are declining, spending on creative industries is rising. He cites a rapid increase in invention patents submitted in America and Europe and that “British, Americans and Japanese spend more on entertaining themselves than on clothing or health-care (and most clothes are chosen as much for pleasure as for utility)” (n.p.).

**Changing labor in the creative industries**

While the possible contributing factors to the rising relevance of creative industries in network society may be unclear, what is clear is that there have been a substantial number of changes to creative labor over this period. Scholars largely recognize that these changes have occurred, though they may debate in particular who the
beneficiaries of them are and especially how the changes alter the relationship between capital and labor.

The network society has seen a change in the discourse of labor presented to and by creative laborers and, consequentially, changes to the expectations of work. Vallas and Prener (2012) detail the emergence within popular business press and the media of “a culture of enterprise that has idealized the uncertainties that have come to grip the labor market, defining the latter as a site on which individual agency can freely unfold” (p. 331). They point to a discourse that “idealizes flexible employment, invites the worker to construe employment uncertainty as emancipatory, and that conjures the labor market as an arena in which individual freedom and self-fulfillment can be won” (p. 339). This largely laudatory perspective on creative labor can be found in Florida (2012), in which the author defines the “Creative Class” as sharing “a common ethos that values creativity, individuality, difference, and merit” (p. 9). Leadbeater and Oakley (1999) describe participants in the cultural industries (what they called Independents, but more accurately resembles Florida’s creative class) as “anti-establishment, anti-traditionalist and in respects highly individualistic: they prize freedom, autonomy and choice,” which the authors say drives Independents to become entrepreneurs seeking “self-exploration and self-fulfillment” (p. 15). Ruffino (2013) describes Barbrook and Cameron’s (2001) “Californian Ideology” as likewise emphasizing the freedom inherent in tech labor, an ideology that turns “hippie concepts of freedom into a different kind of liberty, one that works in accordance with market economics” (p. 113). McRobbie (2002) points to “extensive press and television coverage” of creative laborers that present “the public (especially young people)… with endless accounts of the seemingly inherent rewards of
creative labour” (p. 517). Broadly stated, Banks and Hesmondhalgh (2009) assess, “From left, centre and right then, there has been a validation of creative work as a model for ‘good work’ in general – and promoting its virtues has now become commonplace within government and amongst various other elite and interest groups” (p. 417).

The literature does not agree on how these changes to the language and expectations of labor affect the relationship between capital and labor. As indicated by critics, many writers do use this optimistic discourse in discussing the qualities of creative laborers. Those that employ it suggest not that the discourse shapes the behavior of creative labor but rather that the circumstances of this new generation of young workers contribute to their particular interests in individualism, freedom, and meritocracy. Leadbeater and Oakley (1999), for instance, argue from the British perspective, “The Independents were brought up by parents who were teenagers in the 1950’s and 1960’s, and they themselves became teenagers under Mrs. Thatcher” (p. 15). The implication of this statement is that, as a whole, the emergent creative labor force (at least in the British context) exhibits its “anti-establishment” tendencies by virtue of the political climate in which they were raised. Accordingly, the discourse of labor would mean nothing for the relations of power between labor and capital as the discourse is a mere description of the creative laborer’s own personal values. The trade-offs and subsequent developments in the practice of that labor based on those values are, therefore, consequences of the creative class’s own innate desires, not those of capital. Florida (2012) does not go as far as Leadbeater and Oakley to suggest a specific set of historical causes for changing values of creative laborers, but he does maintain that the changes in values of the creative class emerge independently of any discourse about
them. He suggests that growing tolerance and interest in diversity are driven by a “post-
scarcity” economy and that meritocracy is a naturally conservative value (p. 61). As in
Leadbeater and Oakley’s stance, the implication of Florida’s position is that the change in
the discourse of labor is inconsequential to any subsequent changes in labor practice,
because the discourse of creative labor accurately reflects the interests and beliefs of
laborers.

This notion that these beliefs are intrinsic to creative laborers is, however, weakly
supported. Leadbeater and Oakley (1999) offer no substantiation for their claim. Florida
(2012) cites Inglehart (2000) who, drawing from data from the World Values Surveys,
suggests that “postmodern values” resulting from greater wellbeing and economic
security emphasize “self-expression instead of deference to authority” (p. 223). Florida
takes Inglehart’s suggestion that more secure and affluent populations are more
individualistic as evidence itself that creative labor’s individualism is a property of more
stable society broadly, as opposed to perhaps that individualism being encouraged by an
ideology that emerges from secure economies. Florida’s interviews suggesting
meritocracy and hard work are widely held beliefs among these workers (p. 61) is not
necessarily evidence of the intrinsic origins of these beliefs; it is only evidence that the
workers believe in these qualities.

Many others are critical of this changing discourse of creative labor, seeing these
changes as derived from capital and ultimately benefiting capital at the expense of labor
by encouraging labor to exploit itself through the valorization of workaholism and
individuality at the expense of collaboration. Vallas and Prener (2012) focus specifically
on how the language of labor presented to people entering creative industries can shape
expectations in favor of capital. They argue that “politically and culturally rooted shifts in work expectations have the potential to recast the way workers think about and experience the employment relationship, with effects that can have powerful effects on the outcomes that obtain” (p. 338). They deplore the circulation of “a faux-workerist discourse that induces employees to embrace a critique of the very bureaucratic structures that had previously sheltered them from precarity” (p. 347). Ross (2008) adopts a different perspective, still critical of the optimist discourse. He dismisses the discourse as a red herring, distracting policy makers from the real conditions of creative labor; though “ritually assumed that creative jobs, by their nature, are not deficient in gratification,” he claims that this labor “still comes at a heavy sacrificial cost” (p. 34). Brook (2013) presents a similar, though less aggressive position, arguing, “Rather than assuming that the career choices of those in the creative sector reflect conscious and rational lifestyle preferences,” some people may simply be drawn to creative industries because they are attractive career options for those delaying “the process of redeeming investments in higher education” (p. 322). This position suggests that there is greater room for nuance in the large communities of participants in the creative industries, certainly more so than suggested by those furthering an optimistic discourse.

Creative labor and mobility

Creative labor has come to feature increased mobility between and within jobs, though scholarship disagrees as to the effects of this change on relations of power between labor and capital. Hartley (2005) describes the new creative workforce (as well as everyone else) as looking forward to a “portfolio career,” driven by constantly acquiring new jobs and education to update resumes with an eye towards seeking future
employment, rather than “working for a single industry or even a single employer
throughout their career” (p. 3). Banks and Hesmondhalgh (2009) refer to a number of
studies consistently finding “that creative work is project-based and irregular, contracts
tend to be short-term [and] there is a predominance of self-employed or freelance
workers [whose] career prospects are uncertain and often foreshortened” (p. 420). Florida
(2012) notes particularly that this trend towards “temps and contingent workers” has only
accelerated since the global recession in 2008 (p. 90).

Critics of the optimistic narrative of creative labor see this shift towards labor
mobility as a shift towards insecurity, and above all other changes in labor, they see this
as most serious. Rather than calling this “flexibility” or “fluidity,” critics chastise the
state of creative labor as “precarious.” Ross (2008) describes precariousness as “a
warmed-over version of social Darwinism… a limbo of uncertainty” where workers are
“juggling their options, massaging their contacts, never knowing where their next project
or source of income is coming from,” amounting to a “cycle of feast and famine” (p. 36).
Banks and Hesmondhalgh (2009) refer to it as “employment ‘churn’ and second-
jobbing… a state of economic and social uncertainty whose risks are disproportionately
borne by low-paid and insecure creative labourers” (p. 422-423). They state, “It is
arguable that the alleged ‘spillover’ benefits, then, may have more benefits for owners
and managers than workers” (p. 423). The prominence of scholarship specifically critical
of precarity is staggering and speaks to the degree to which many feel job insecurity
serves as a fundamental driver of labor exploitation in favor of capital (see, for example,
Neilsen and Rossiter, 2005; Gill, 2007; Arvidsson et al., 2010; Lazzarato, 1996; Gill and
Pratt, 2008; Vallas and Prener, 2012; Murray and Gollmitzer, 2012; and McDowell and Christopherson, 2009).

This is not to suggest that the shift from stability to flexibility (to use the more charitable description) definitely means the weakening of labor. Some instead view this change as liberation from a stifling existence under the corporate thumb. Pink (2001) suggests that free agents “declared [their] liberation from traditional work” (p. 44) and have done so by choice. He characterizes the free agent as a “footloose, independent… tech-savvy, self-reliant, path-charting micropreneur” (p. 14). As much as Florida (2012) concedes that in the first edition of *The Rise of the Creative Class* he was “perhaps too optimistic about the potential for worker mobility, flexibility, and freedom,” (p. 87), he maintains a similar perspective on the motivations of workers elsewhere in his revised text; he finds young college students, even post-recession, saying they are “unwilling to sacrifice freedom, flexibility, and challenging work simply for security and pay” (p. 67). He describes flexibility within a job as a central motivation for creative laborers and those hiring them: “The employees… thrived on ‘ambiguity’ and the ability to ‘create’ their own role in the enterprise, which they defined as being able to take on tasks and figure out what they needed to accomplish on their own” (p. 73-4). The anti-establishment and anti-traditionalist attitudes Leadbeater and Oakley (1999) describe as intrinsic to their “independents” means they are predisposed “to pursue self-employment and entrepreneurship in the spirit of self-exploration and self-fulfillment” (p. 15).

According to perspectives like these, the hypermobility and flexibility of labor within and between jobs is less the consequence of capital attempting to squeeze pay and benefits out of workers and more the result of the workers themselves being naturally inclined to
constantly seek better employment, specifically avoiding the stability, and thus stagnation, intrinsic to traditional labor practice. In essence, flexible employment is labor exchanging security for other intrinsic rewards.

Alternately, one might argue that while increased labor mobility may not benefit labor, it in fact weakens, rather than reinforces, capital. Pfeffer (2001) discusses the broad implications for companies that focus too much on individuals rather than building a cohesive team, advocating employment security as a means of improving performance. Florida (2012) argues that increased emphasis on temporary or impermanent contract labor ultimately does not benefit capital, in spite of the apparent benefits of liberating it from the obligations of providing social and financial support; he argues that companies that rely on freelance and contract labor ultimately “implicitly accept high turnover, huge training costs, considerable productivity losses, and significant leakage of intellectual property” (p. 93). Stahl (2009) challenges this last position, noting that the legal structures governing intellectual property, at least in the cultural industries, do not allow employees to maintain much control over any intellectual property generated while working for hire: he flatly declares that “copyright’s doctrine of ‘work for hire’ allocates authorship and ownership of intellectual property produced in the workplace to the employers, alienating employee media workers and also enabling the dispossession of most freelancers” (p. 55). Still, replacing full-time with contract and temporary workers is not automatically beneficial to capital, as Damiani and Pompei (2010) note in reference to the contradictory effects of fixed-term labor contracts on worker productivity (p. 391-2) and Giannetti and Madia (2013) suggest in regards to the relationship between high turnover and potential drawbacks on innovation and social cohesion.
Time and creative labor

Literature notes not only increased mobility within and between jobs but also the increased fluidity of work hours and leisure time for creative workers in network society. Lazzarato (1996) laments, “It is worth noting that in this kind of working existence it becomes increasingly difficult to distinguish leisure time from work time. In a sense, life becomes inseparable from work” (p. 137). Hardt and Negri (2004) note the same “blending of work time and nonwork time, extending the working day indefinitely to fill all of life” (p. 66). Gill and Pratt (2008) more particularly refer to the “long hours and bulimic patterns of working [and] collapse or erasure of the boundaries between work and play” (p. 14). Florida (2012) describes this time crunch, or in his words, “time famine” (p. 127) in further detail. He claims that “a relentless march of technologies” like smart phones and laptops extend the workday by enabling labor to happen outside of the office and, therefore, standard office hours. He writes that many workers “arrive at a complex interweaving of work and personal life” that “can be more hectic than idyllic” as it forces workers to mentally transition between a work mindset and leisure mindset so many times a day (p. 128-9). Florida also notes that even during “leisure” time, creative work inhabits the brain; workers come home with unsolved problems or decisions unresolved, leading him to argue, “Creative workers may actually ‘work’ more than statistics show” (p. 127).

As with many previous changes to labor in creative industries, the literature disagrees as to how this change affects the relationship between labor and capital. There is little shortage of critics of this development. McRobbie (2002) argues that the new instability of time and space contributes to “little possibility of a politics of the
workplace” because “there is little time, few existing mechanisms for organization, and anyway no fixed workplace for a workplace politics to develop” that might enable labor to fight collectively for more favorable conditions (p. 519). Gill and Pratt (2008) note “the extraordinarily long working hours of cultural [creative] workers – which are often considerably in excess of working-time agreements and exert heavy costs on – or even prohibit – relationships outside of work with friends, partners, children (in ways that are unevenly affected by gender and age)” (p. 17). Terranova (2013) criticizes the trend of converting leisure time into “free labor” such that even leisure time produces value for others at the worker’s expense. This perspective suggests that the blurring hours weaken labor, not only by stripping the possibilities of organizing labor into effective unions, as Peck (2005) says in response to Florida (2002). It also contributes to precarity by further destabilizing the workday such that, as Hardt and Negri (2004) note, life becomes work in a way that benefits capital.

Others argue that with looser guidelines on where and when workers must work they gain the ability to set their own schedules, work from locations that may be more pleasing to them, and change their hours or work spaces on their own terms. Leadbeater and Oakley (1999) see the blurring of work and nonwork time endemic to the creative laborer and that working during “nonwork” time is their own choice. They argue “that periods not at work – leisure, relaxation, entertainment… contribute to delivering a creative product. Many of these independents say their best ideas come to them when they are not at work” (p. 24). The lesson they draw from this is for businesses to adopt looser work hours – specifically because the hours not at work will contribute to more “thinking and creating new ideas” (p. 25). Florida (2012) meanwhile suggests that a
possible cause of this decreasing separation between work and nonwork time may be driven by workers deliberately “front-loading” their careers: “working excruciatingly long and hard at the outset of their professional lives in the hope that it will pay off in greater income, marketability, and mobility later” (p. 129). Having delayed marriage and begun starting families later than prior generations, young workers are “the workhorses of many sectors of the Creative Economy” (p. 131). He notes that “they do so partly because they relish the challenge but also because, in the fluid market, this is the time to make your mark” (p. 131). These positions on motivations towards flexibility do not so much establish that this work is objectively liberated, only that it is ostensibly freer than a more rigid alternative.

Positions like Leadbeater and Oakley’s and Florida’s suggest that workers themselves, by virtue of their inherent dispositions towards independence and autonomy, are responsible for working outside of traditional work hours and the workplace but external influences like the worker’s position in the labor market may factor into decision making as well. It does not automatically suggest unconventional hours benefit capital by extracting more from the laborer because, as Leadbeater and Oakley suggest, labor needs off-time to develop creative ideas (which is still labor, just without immediate supervision by management). Rather, these positions imply a possible symbiosis in which labor produces best when it sets its own hours, and if labor inherently enjoys working outside of work then all parties benefit. It is worth noting, though, that Leadbeater and Oakley’s claim that work/non-work time blending contributes to increased productivity is not supported in any presented evidence.
Nonmonetary incentives in creative labor

Creative laborers are working longer hours in different places, but scholarship also suggests that creative labor is encouraged to, and in fact does, work increasingly for nonmonetary reasons. Ross (2013) presents the perspective that many might work for lower wages or for no wage at all because “the value of free promotion on a wide platform outweighs any benefits to be gotten from the surety of a professional pay scale” (p. 14; see also Terranova, 2013; Caves, 2002; Florida, 2012; Andrejevic, 2013). Creative labor increasingly networks, without the support of institutional trade associations (McRobbie, 2002), to maintain connections to other isolated workers and establish critical connections to future partners and job opportunities (see Gill and Pratt, 2008; Hracs and Leslie, 2013; Andrejevic, 2013). One of Florida’s (2012) central positions on creative labor is that “creative workers are most motivated by their work’s intrinsic rewards,” (p. 69) such as “challenge or enjoyment, to do good, to make a contribution, and to learn” (p. 83), and that while money is important, he argues that “many firms, scholars, and business pundits still overrate money as a motivating factor, especially in the world of creative work” (p. 69). This stems from the assumption that most creative laborers are on the top ends of Abraham Maslow’s hierarchy of needs: “Having satisfied their basic needs for safety and security, they can and do move laterally, trying out first one form of esteem and self-actualization and then another” (Florida, 2012, p. 81). It is along the same line of reasoning that Pink (2001) argues that economic prosperity allows people to work not only for money but to “make meaning” (p. 53). Hartley (2005) considers how the creative industries should be and will be driven by the internalization of education—fostering a “yearning for learning” (p. 4), pushed not by mandating or
certifying education but by workers themselves. Dervojeda et al. (2013) suggest some pursue creative labor to indulge a preference for risk-taking or simply because they prefer creative work over other kinds (p. 54).

An important consideration regarding this nonmonetary incentive within these industries in particular is the idea that creative industries offer above average wages compared to other industries anyway. Such is Dolfman et al (2007)’s conclusion through the use of statistics from the Bureau of Labor Statistics (BLS) that suggests wages for those in the creative arts industries (that is, the cultural industries) are nearly 35% higher than “comparable national private-sector wage[s]” (p. 23). Florida points to much the same using 2010 data from the BLS, suggesting higher annual wages for creative workers across all of the sectors available in comparison to the average across all occupations (p. 42). At the same time, these statistics may only tell part of the story. Markusen and Schrock (2005) clash with Dolfman et al’s (2007) comments on the arts, noting that artists “tend to earn low incomes and be self-employed” (p. 1664), a position held by Caves (2002) and Throsby (2001) that both cite the commonality of such workers holding multiple jobs. The misunderstanding (which challenges the statistics and positions both of Dolfman et al. and Florida) is that the BLS figures do not account for incomes of more independent and unconventional working arrangements. This may be more problematic for industries likely dominated with such atypical working arrangements—like the fine arts, for example—and less so for a different category, such as motion picture distribution.

As with previously addressed changes to creative labor, the increased prominence of working for nonmonetary reasons may or may not shift the relationship between labor
and capital. Critics of the shift argue that workers increasingly depend on maintaining their skills, networking with others in the labor force, and self-promoting because capital absolves itself of those obligations for its own benefit. Ross (2013) describes it as working for nothing, noting that owners of social networks that reap financial rewards from labor’s unpaid self-promotion have no legal obligation to share those gains. The use and, Ross argues, abuse of unpaid internships serves only to improve a company’s profitability by replacing paid labor with free labor, simply by suggesting that the workers are getting education or experience instead of wages. Others suggest similar points, arguing that increasing demands for labor to work for reasons other than wages amount to exploitation of labor (see Terranova, 2013; McRobbie, 2002; Lazzarato, 1996; Arvidsson et al., 2010; Banks and Hesmondhalgh, 2009).

Simultaneously, others see the increase in labor for nonmonetary reasons motivated by a class of creative workers for whom money is not everything, or even the primary motivation for work. Pink (2001) suggests that “free agents” work for “something beyond simply earning money to survive” and that the traditional corporate environment is stifling by contrast to the free flowing qualities of free agency (p. 53). Leadbeater and Oakley (1999) suggest these workers have a similar personality attribute: “Their attitude towards money is as ambivalent as their attitude to the market. In ways they are non-materialistic” (p. 23). The evidence supporting these claims that working for nonmonetary reasons is a personal quality is questionable, though; Pink (2001) suggests that economic stability enables workers to work to “make meaning” (p. 53), much in the way suggested by Inglehart (2000), but he does not further provide evidence that workers follow this reasoning, and Leadbeater and Oakley (1999) cite responses by interviewees
that they hold these values without addressing causality (p. 22-23). Florida (2012) suggests workers are not forced to do this labor for non-monetary reasons, at least not all of the time. Rather, he argues that workers engage in a strategy of “time deepening” whereby they attempt to cram activities into less time rather than eliminating some to make more time for others (p. 131). In such a situation, this circumstance does of course benefit capital – the worker is more productive because they are working more and the company does not have to pay for it – but by being freely chosen by the worker, this circumstance appears symbiotic because the worker is free to do as he or she pleases, and if there was no pleasure in this work, they would by this logic not being doing it.

**Creative labor and the social safety net**

Scholarship also recognizes that developments in creative labor result in the reduction, privatization, or individualization of the social safety net. McDowell and Christopherson (2009) note that the change from more stable full-time positions to contract jobs or self-employment result in labor losing access to consistent healthcare, pensions and other benefits that had been mainstays of traditional employment. This position is further supported by 2005 survey data by Horowitz et al. (2005) that finds 28% of respondents spent some portion of the previous year without health insurance and only 47% claim to save money for retirement every month (p. 6-7). Hacker (2008) describes the problems of the working poor becoming problems in middle class “knowledge” professions, such as those in the creative economy: “lack of health insurance and access to guaranteed pensions, [and] job insecurity,” resulting in middle-class Americans too rich for Medicaid but not rich enough to ensure they would not be ruined in the event of a catastrophic medical event or to guarantee secure retirement at
sixty-five (p. xii). Even the typically optimistic Florida (2012) notes the creative class’s decline in security grimly: “Since the rise of the Creative Economy,” he writes, “Creative Class workers have increasingly assumed the risks that companies and the government, to a certain extent, used to absorb” (p. 88). He notes that workers are increasingly responsible for keeping their skills up to date (and as previously addressed, without compensation; p. 98). He also cites a 2001 statistic that only 11 percent of free agents nationally receive health insurance from their primary employer or client (compared to nearly three-quarters of full-time workers), and that only a quarter of free agents have any benefits at all (p. 92). Ross (2008) states that “most governments and firms have been withdrawing from their obligations for over two decades” through welfare reform, weakening labor regulation, and increases in “subcontracting, offshore outsourcing and benefit offloading on the part of corporations” (p. 40).

On this account, scholarship unanimously agrees that this shifts the burden of providing social services from capital and government onto the laborer. Florida, though relatively upbeat even in his post-recession revision of The Rise of the Creative Class ends his chapter on the declining social safety net starkly, saying freelancers have accepted these conditions as the new normal: “More and more, we simply accept our lot as the way things are and go about our busy lives” (p. 99). Pink (2001) in contrast suggests that changes in the safety net are the consequence of a labor force increasingly interested in independence and free agency; he argues that the idea of a standard retirement is “a twentieth-century aberration” which is undesirable to aging workers and that employer-provided health insurance is likewise “built on a historic accident and underpinned in almost no economic or moral logic” (p. 22-3). That is not to suggest that
this weaker safety net is good for labor – it does still imply they are weaker against capital for it – but Pink’s implication is that the strength of labor afforded by the past century’s social safety net was a mistake and that this turn away from social security is in some ways an inevitable consequence of this new generation of free agents. That said, Pink’s rejection of the social safety net is widely opposed by the literature and lacks evidentiary support.

**Social isolation and creative labor**

Perhaps the most contested of the supposed developments in creative labor in network society is the claim that creative workers have grown increasingly isolated from each other. In this instance, scholarship disagrees not in the effects of the development but rather the very existence of it. McRobbie (2002) argues isolation emerges from two fronts: firstly, that society obsesses over celebrity culture extended to other creative people and secondly that “people are increasingly disembedded from ties of kinship, community and social class” (p. 518). Vallas and Prener (2012) criticize what they see as a manufactured business literature discourse that encourages workers to embrace self-monitoring, self-fulfillment, and individual freedom, a discourse they say “in the absence of collective alternatives… can be highly seductive” (p. 348). Ross (2008) criticizes businesses directly for furthering this same “individualist professional ethos” (p. 42), as do Banks and Hesmondhalgh (2009). Florida (2012) notes that both in his original 2002 edition and revised text, the Creative Class lacks the class consciousness found in the working class:

…the Creative Class is a highly individualized and even atomized social stratum. Thus far, its members have been content with personal betterment, staying fit, developing themselves, renovating their houses and apartments, questing after new experiences.
Although Creative Class people are generally liberal minded, solidarity has not been their strong suit (p. xv).

Reports that creative labor grows increasingly isolated, however, remain contentious. Ross (2008) for instance notes that even in such industries that encourage an “individualist professional ethos” (p. 42), workers that attempt to unite for political action find success, in spite of creative laborers’ assumed “self-directed mentality” that would suggest they are “incapable of organizing” (p. 42). He cites successes of action by IT workers in the WashTech union, unions of adjuncts and graduate teachers, the Hollywood writers’ strike, and the joining of actors with janitors and longshoremen in a united campaign for better jobs in Los Angeles. Florida (2012), for all his arguments that the Creative Class are meritocratic, individualistic, and lacking in class consciousness, also details how creative workers collaborate for purposes of knowledge transfer, networking, and leisure. Accounts of socialization, collaboration and networking across creative industries also raises questions about the accuracy of claims that creative labor is more isolated rather than differently connected (see Cummins-Russell and Rantisi, 2012; Guevara-Villalobos, 2011; Luvaas, 2009; Joseph, 2013; Becker, 1982/2008). From a broader perspective, research also cites the significance of clustering within creative industries especially in cities, contributing to “enhancing innovation and flexibility by promoting information flows, networks of interaction and relational ties among a diverse but spatially proximate range of participants and institutions” (Flew, 2013, p. 1; see also Porter, 1998 and 2000; Florida, 2012; Scott, 2001; Caves, 2002; and Dolfman et al, 2007). Porter, in particular, stresses the benefits of competition in these clusters in driving the proposed benefits of this proximity (Porter, 1998). The promotion of clusters as an analytical concept, especially as conceptualized by Porter, has not gone unchallenged,
though; Martin and Sunley (2003), though they do not fully dismiss the clustering concept, criticize its cavalier adoption in policy planning, particularly in the United States (p. 6). That said, the basic premise that workers in network society still connect locally remains supported by Martin and Sunley regardless of which name and specific terminology one chooses to represent this phenomenon.

If creative labor is indeed growing more isolated, its consequences would suggest that creative labor is weaker in comparison to traditional labor with respect to capital. McRobbie (2002) points out that isolation from other workers discourages political engagement, and the political language of the left and feminism vanish upon entering the workforce. She notes, “The only site for the dissemination of these values is the academy, the place of training or education of the creatives” (p. 522). Accordingly, because workers are divided from each other and are discouraged from identifying as a united group (see Ross, 2009), labor is less likely to cohere into a powerful bloc to challenge capital and argue for better wages, conditions or benefits. Even if one were to adopt the position that this isolation comes as a consequence of the workers’ own values and morality, as suggested by Leadbeater and Oakley (1999), Pink (2001) or Florida (2012), while individual agents within the creative industries might rise dramatically by being better workers, the absence of unity means that more workers cannot rise beyond internal competition for lower paying and less secure employment.

While the literature on changes to creative labor in network society speak considerably to changing power dynamics between labor and capital, audiences or consumers remain part of the system as well. The problem with understanding how these changes may affect audiences and their authority in the economy is that production is
frequently a black box, such that labor conditions may be poorly understood. O’Donnell (2011) for instance notes that video game players simply do not understand game development and the complexities of work relationships that make a game produced on two platforms so radically different. Vallas and Prener (2012) suggest that the lack of clarity in perspectives on the socio-economic system in America make understanding “good” versus “bad” jobs difficult for both social scientific and lay audiences (p. 336-7).

Essentially, the problem is that the consumer or audience for creative labor engages with products after the labor is complete or perhaps at snapshots during the process without the entire context. While changes in labor have consequences for production, it cannot be suggested what effect any individual change in labor has on production apart from other changes in aggregate.

**Analytical methodologies in studies of creative industries**

A prominent approach to studies of labor in creative industries involves the use of cross-industry and wide-scale surveys for data collection. Many studies use survey and broad economic data as the basis for analysis, perhaps with some attention to interviews as introductions to data (Brook, 2013; Florida, 2012; Leadbeater and Oakley, 1999; Pink, 2001). The *Creative Industries Mapping Documents* (1998, 2001) propose policy solutions exclusively on the basis of national survey data. Authors refer to creative industries in aggregate, combining data from different jobs and places to speak of broader trends (see Florida, 2012; Leadbeater and Oakley, 1999; Oakley, 2006; Ross, 2008; Jarvis and Pratt, 2005; Gill, 2002).

There has been criticism of this approach as well. Lotz (2009) notes, in particular reference to media workers, “Such studies have expansive scope, yet they are typically
informed by data such as broad statistical measures that do little to reveal the daily functioning of media or the situation of particular media workers” (p. 26). She notes that large-scale data “tell us little about how these conglomerates actually function, such as who makes decisions, how various divisions interact, or what level of centralized coordination and control might exist” (p. 26). In labor fields characterized by instability, Menger (1999) notes how statistics may poorly account for multiple job holders, definitions of what fields get counted as “artistic,” as well as how to account for labor inside and outside of their artistic field. Accordingly, the overreliance on large-scale data serves only to present an overview of broadly defined creative industries tied most closely together by virtue of statistics. It establishes broad information about sector sizes and income but does not reveal actual conditions. It is also worth recognizing, as Murray and Gollmitzer (2012) note, that policy makers may operate on data that “has been slow to catch up” to current conditions (p. 420). While the theory concerning creative labor, on its virtues and dangers, has grown, McDowell and Christopherson (2009) note, “What has been missing from the theoretical discussion of precarious work or precarity as a socio-economic phenomenon is a connection to the real-life empirical characteristics of labour flexibility and insecurity” (p. 339).

Where many articles argue on the basis on broad survey data, authors also employ self-reporting and interviews, often to contextualize statistics. Florida (2012) defines the character of the creative class on the basis of “[his] own interviews and focus groups, along with a close reading of statistical surveys conducted by others” (p. 56), and yet aside from brief descriptions of individual workers’ experiences to open chapters, he does not explore how these self-reported morals operate in practice. The use of self-reporting
and interviews as a means of understanding creative labor is common (Jarvis and Pratt, 2005; Lee, 2012; McRobbie, 2002; Arvidsson et al., 2010), and usefully provides a greater degree of connectivity between statistics and actual practice.

Recent literature helps to anchor the connections between theory and practice, advocated above by McDowell and Christopherson (2009), with ethnographic data. Lotz (2009) notes that the use of participant observations in addition to interviews help develop “thick description” at the micro-level (p. 26). She notes that while these studies may not provide or support “deterministic hypotheses” such as suggested in macro-level scholarship (prominently featured in Florida, 2012, for instance), their level of detail explores complexities that otherwise go unnoticed in macro-level research (p. 27).

Overviews of the literature on creative labor note an evidence gap between actual work and theories about work. Gill & Pratt (2008) note that “to understand [the absence of labor organization in many cultural workplaces] requires a closer analysis than the autonomists provide – one that can engage with the specificities of different industries, workplaces and locations, and attend to the meanings that workers themselves give to their labour” (p. 21). This knowledge gap may be more severe in new patterns of employment: Blair (2003) suggests, “While considerable bodies of knowledge exist concerning more traditional forms of work and employment, micro-level studies of new patterns of employment are sparse” (p. 678). The literature thus suggests a need for more micro-level examinations of particular labor communities to anchor theories and positions based on macro-level data.
Cultural labor

Within the broader discussion of creative labor, scholarship recognizes specific differences in regards to labor in industries responsible for creating “cultural” content, called the cultural industries. According to Hirsch (1972), the cultural industries produce “cultural products” for wide distribution (p. 642), while Stahl (2009) refers to them similarly as “capitalist media production” (p. 54). Understanding the meaning of “cultural industries” is complicated by the frequency with which scholars use “creative” and “cultural” interchangeably (a complexity explored in the previous section). Garnham (2005) refers to the culture industries as “the arts and media” (p. 17), and this connection most clearly distinguishes the two referents; on the one hand, industries in which creativity is a central aspect of labor (creative labor) and on the other hand, industries responsible for the creation of art and media (cultural labor). While it might seem that the distinction between both sets of industries is merely semantic, there are apparent differences between the newly heralded creative industries and the culture industries as a subset of the creative industries. Certainly, the adoption of “creative industries” as an umbrella category that includes the cultural industries implies that labor in both industries correspond; however, certain distinctions between the non-cultural creative industries (such as software development or project management) and the cultural creative industries (such as game development, acting, being a musician or book publishing) reveals room for more precise scholarship.

A central matter that seemingly differentiates cultural from non-cultural industries is what Caves (2002) calls the “art for art’s sake property.” Caves argues, “This property implies that artists turn out more creative product than if they valued only the incomes
they receive, and on average earn lower pecuniary incomes than their general ability, skill, and education would otherwise warrant” (p. 4). The Romantic ideology of “art for art’s sake” suggests that artists will produce art regardless, or at least in excess, of available markets, simply for the joy of the work itself. Menger (2006) adds that along with the fact that artists are inclined to overproduce beyond, or at least without consideration of, what the market will demand, structural changes to art instruction dramatically increase the number of artists. Menger cites numerous examples of the dramatic oversupply of artists following market intrusion into their respective fields before and after the turn of the 20th century; in a more current example of the French labor market, Menger (2003) notes the rate of labor supply expanded beyond labor demand, meaning while the number of hirings increased over that period, median working hours and compensation per artist dropped. Reasons for spikes in artist supply include changes to technology affecting the distribution of art but also changes that lower the skill barriers of entry (Menger, 2006, p. 783). In an earlier essay, Menger (1999) cites higher employment in the 1970’s and 1980’s, certainly in Europe, spurred by expansion of the nonprofit sector providing training, conservation, and display spaces for artists. With fewer hurdles for would-be artists to both create a product and then distribute it with the possibility, however slim, of making money, this contributes to a systematic oversupply of both artists and art which does not occur in other non-cultural industries.

**Oversupply in the cultural industries**

This principle does not explain why people would choose both to flock to professions that are overcrowded and thus offer fewer possibilities for earning money and why those artists would produce so much that it would inevitably devalue their product.
To explain this seeming paradox in the cultural industries, Menger (1999) suggests the concept of the “psychic income,” or “so-called nonmonetary rewards” (p. 554). Menger argues that all jobs can be considered in this regard as a combination of conditions, and how attractive a job is to a worker depends on not only monetary wages but the nonmonetary advantages as well. Thus, different jobs appeal to certain personalities more than others. Menger notes that the artistic professions (and this includes new media as well) “can be considered as highly attractive along a set of measurable dimensions of job satisfaction” including work variety, personal autonomy, opportunities to use multiple skills, feeling self-actualized at work, having an “idiosyncratic way of life” (p. 555), a strong community, limited routine, and social recognition. The concept of the psychic income suggests these aspects of the job have “shadow prices” (p. 555) that make a worker feel satisfied in replacement for monetary wages that worker would expect under less favorable conditions. Authors like Leadbeater and Oakley (1999) or Florida (2012) suggest that the broader creative industries offer such favorable conditions as well, but the cultural industries have a long historical precedence validating the “psychic income” concept. Ross (2008) cites the stereotype of the struggling artist (p. 39) as does Caves (2002) refer to the “starving artist” (p. 4); the stereotype originates at least from the 1800’s, forming the basis for Puccini’s opera *La Boheme* which was first performed in 1896 but takes place mid-19th century.

Others have offered more biological explanations for the oversupply of art and artists. Lhommée et al. (2014) investigate Parkinson’s patients to explore how creativity connects to chemical changes in the brain. Csikszentmihalyi (2013) suggests people who are creative may have a genetic predisposition towards it (p. 52). Florida (2012), Pink
(2001) and Leadbeater and Oakley (1999), as previously discussed, similarly connect creativity (broadly, such as defines the creativity of creative industries and not specifically creativity in art and media production) as partly a personal trait. Menger (1999) suggests that in addition perhaps to an innate (and possibly human) biological compulsion for expressing creativity, the culture industries’ intrinsic high-risk high-reward condition attracts people with risk-taking personalities, steering would-be artists to an overcrowded field where a select few win the proverbial lottery (p. 554). Caves (2002) similarly suggests this risk-taking may be a necessary component for would-be students in cultural fields: he cites a voice teacher who says, “without the fantasy of being great you could not ever begin” (p. 24-5). Caves calls this the “lottery prize phenomenon” (p. 57). The idea of high risk in pursuing cultural labor differentiates itself from the suggestions by Florida (2012) for instance who notes that creative labor prizes job security and consistently strong wages, especially post-recession (p. 78).

The significance of exploring the issue of labor and product oversupply in the cultural industries is considerable. Firstly, the research reveals a long-standing history going back at least a century attributing taking jobs with lower pecuniary pay in exchange for other forms of rewards specific to art and media production. The result is a long-standing and widely accepted trope of starving artists that may contribute to labor both anticipating and valorizing seemingly undesirable and economically precarious conditions in following that Romantic ideology. Secondly, while free agency and precarious employment characterize cultural and non-cultural creative labor markets in the literature, that literature also suggests that personal characteristics of artists and would-be artists, in conjunction with training and market conditions that lower barriers
for entry and raise economic stakes for artistic “lottery winners,” contribute to the systemic oversupply of labor and product that contribute to labor conditions in cultural industries. By extension, labor conditions within the cultural industries should be considered as potentially driven by different forces than in non-cultural creative fields, that similar conditions may not emerge from the same preconditions, and that laborers may interpret those conditions differently in cultural fields compared to non-cultural creative fields.

**Risk and response**

Connected with differences in labor participation between cultural and non-cultural creative labor, research finds that cultural industries operate in a comparatively high-risk environment which may also affects labor practices, products, and ideologies of labor. One of Caves’ (2002) central propositions about the cultural industries is that demand for cultural products is uncertain, what he calls the “nobody knows” property. Unlike other products driven by practical consumer needs (one can predict that people will need cars, toothbrushes, phones and so on with some degree of accuracy), consumers buy cultural products according to taste, and Caves notes, “Economists have accepted… that it is fruitless to try to explain tastes, to understand why people choose to consume what they do” (p. 175). Becker (1982/2008) describes how audiences establish conventions that inform artists what kinds of things that audience wants to have more of, but these conventions change as well and do so unpredictably. Bourdieu (1984) raises this point when he writes, “A cultural product… is a constituted taste, a taste which has been raised from the vague semi-existence of half-formulated or unformulated experience, implicit or even unconscious desire…” (p. 231). Elberse (2013) describes the television
industry, though she extends this characterization to the cultural sector by and large, as an industry in which “audience demand is fickle and the failure rate is so high” (p. 3).

Beyond the unpredictability of how cultural products will be received in the market, cultural products incur high sunk costs that further increase risk. Becker (1982/2008) notes that even cultural production spaces typically thought of as isolated and independent, like fine arts or fiction writing, involve worlds of support staff beyond the simple cost of materials. Authors, for instance, depend on publishers to market their books and those costs occur before the product can potentially earn a profit. Caves (2002) notes that creative products that are costly to first produce, such as film but essentially all mass media, drive stakeholders to make conservative investments as any money sunk on a project “cannot be retrieved once a disaster is evident” (p. 3).

One result of the high-risk nature of cultural industries suggested in the literature is the pursuit of bandwagon strategies and a subsequent reduction in product innovation in mass markets. Because, as Caves (2002) notes, “nobody knows” what will or will not succeed in the cultural markets, predictions of success are often based on singular opinions: opinions of talent scouts, dealers, or studio executives (Caves, 2002; Becker, 1982/2008; Zafirau, 2009; Elberse, 2013). Unable to offer solid projections for profit (especially in media conglomerates; see Caves, 2002), cultural gatekeepers depend on past successes to suggest what the market will desire. Zafirau (2009) describes how Hollywood executives cultivate a “gut” instinct for hits in the market, especially the youth market, by asking their own children what is already popular and deciding on products accordingly. Caves (2002) notes how contracts in industries like literature and music often push for the rare few successful producers to continue producing within
certain amounts of time or in the same style as previous work to ensure subsequent products more closely meet past audience expectations: “a successful first book raises readers’ interest in the next,” he writes, “just as a successful second book increases demand for the first” (p. 58). Elberse (2013) notes that risk drives sequels and franchising, striving to leave a “winning formula” unchanged (p. 33). Where innovation is sought, both Caves (2002) and Becker (1982/2008) note that gatekeepers will attempt to create a bandwagon effect and create a pattern of taste to reduce risk-taking later: “Innovative dealers thus find that their aesthetic and financial judgments and activities are thoroughly mixed… [and] they cannot, and do not, wait for history to speak” (Becker, 1982/2008, p. 110). Even still, attempts to cultivate new trends frequently fail; Caves (2002) notes the extremely imbalanced contracts offered to new producers (p. 62), and Becker (1982/2008) cites the high failure rates of new art galleries and the logic of why galleries for historically validated work are less risky: even when they are out of date, those galleries stocked with historic rather than trendy material maintain value over time (p. 110). Elberse (2013) describes the “blockbuster strategy” employed by the large media firms to minimize risk by throwing the majority of funding behind the most likely success. Products that do not resemble past successes get ignored while those that do create bidding wars in hopes of repeating past performance (p. 35).

Literature does suggest that cultural industries and workers in those industries operate in different contexts from other non-cultural creative industries; however, this does not suggest labor practices and conditions experienced in the larger creative industries do not occur in the culture industries. Many studies already establish the prominence of precarity, self-exploitation, self-actualization, blending of work and
leisure time, and flexibility in the cultural fields specifically (Ross, 2008; Lee, 2012; Dyer-Witheford and De Peuter, 2009; Mayer, 2009; Stahl, 2009). The significance of establishing the cultural industries as at least potentially distinct from non-cultural creative industries remains, despite similar labor conditions. While labor conditions may be comparable for both cultural and non-cultural workers, the historical precedence of these conditions in the cultural industries far precedes the emergence of the network society in which those same conditions appear to have proliferated to non-cultural industries. Accordingly, one must take into consideration the historical perceptions and perhaps different chains of causality that contribute to labor conditions and how workers interpret those conditions. Specific factors in culture markets such as high availability of labor and product, coupled with wildly unpredictable risk, mean that, as a subset of the creative industries, cultural labor may adopt labor practices for entirely different reasons than non-cultural fields not characterized by these conditions. An analysis of creative labor through an example within a cultural industry should take these matters into consideration.

**Independent Cultural Production**

Within the scope of cultural labor, there are those that describe themselves as separate, or “independent,” suggesting a further complication in the unity of the creative industries and workers therein. To begin unpacking the meaning of “independent” as applied to independent cultural labor reveals competing views of the same term. Much like the confusion between the terminology used to distinguish creative industries from cultural industries, the meaning of independence in the cultural industries is unclear
because of the use of the term “indie” often interchangeably with “independent” (see McRobbie, 2002; Martin and Deuze, 2009; and Oakes, 2009).

Much like Garnham’s (2005) position on the distinction between “creative” and “cultural” industries, many authors see the distinction between “independent” and “indie” as pregnant with significance. Newman (2011) writes that “[Switching terms from 'independent' to 'indie'] functions as a mystification...[that] diminishes or makes vague the significance of economic distinctions and injects added connotations of a distinguishing style or sensibility and of a social identity” (p. 4). This division between economic distinction and connotation of style focuses many of the definitions isolating one term from the other. Perren (2012) distinguishes “independent” from “indie” by source of funding: “…a film or company will be described by me as independent if it is unaffiliated with a major media conglomerate. If a conglomerate has an investment in it, I label it an indie” (p. 8). Newman (2011) adds a branding component to this division: “To an extent, the diminutive indie is simply a synonym for independent with an added connotation of fashionable cool” (p. 4). Whitson (2013) similarly defines “independent” as being absent a publisher, while “indie” includes this economic definition as well as notions of style and creative autonomy (p. 125). The question of focusing on either independent or indie is loaded and political (see Lipkin, 2013 and Ruffino, 2013). At its core, the term “independent” suggests real material or political difference from the dominant cultural production regime, while “indie” merely suggests a certain difference of aesthetics, one that may be cool, artistic, or more serious, but it is an aesthetic that is void of connections
to labor. Thus, this project takes “independence” and its emphasis on labor as its focal point rather than “indie” with its stronger connections to branding.¹

A common position in the literature on independent media defines independent as opposed to the mainstream, in that it has identity only in what it is not. Newman (2009) writes, “… indie cinema, like indie culture more generally, derives its identity from challenging the mainstream” (p. 16). Oakes (2009) describes the origins of independent art and literature in mid-century America as “making art outside of the mainstream” (p. 12). Most tellingly of the implications of this definition of independence is the response by Milner (2012) who says of indie, “[I]ndie subcultures construct their existence in opposition to the mainstream. The ‘mainstream’ is characterized as an unembraceable idea and the ultimate antithesis to the symbolic authenticity, engagement, and solidarity central to the subculture” (p. 425-6). The definition is inherently tautological, arguing that indie is not mainstream and mainstream is not indie. Such a perspective on independent production implies that there is in fact no need for material difference between the self-defined independent and the permanent “other” mainstream, only that the independent perceives a difference.

Scholarship also attempts to define independent in political-economic terms, though principally economic more than political. Le Masurier (2012) does this with an extensive description:

The independents are characterized as micro-businesses in the ‘cultural industries’ of ‘design, music, fashion, computer graphics and games, film and television’ (1999: 9). They escape easy categorization, but ‘are often producers, designers, retailers and promoters all at the same time’ (1999: 11). They use informal networks of friends and associates to organize their work. They are defiantly independent, uninterested in state

¹ Quotes from members of the independent game making community in New York City in the dissertation will often feature the use of the term “indie” rather than independent; this suggests that this distinction between independence and indie-ness is relevant more to academics than practitioners.
subsidies. Their aim is to remain as small enterprises in order to retain creative control. They tend to be asset poor and imagination rich (p. 386).

The definition notes that independence distinguishes itself by the size of the business (and, notably, Le Masurier describes them as businesses and specifically a subset of the cultural industries), by their use of alternative networks of distribution and organization, their indifference towards state or corporate funding, and their limited financial capital. Others define independence referring to parts of this argument. McRobbie (2002) writes, “By ‘independents’ I mean small scale micro-economies primarily in music and fashion and related fields, which emerged as post punk phenomena in the mid-1980s in response to unemployment and to [British] government endorsement of ‘enterprise culture’” (p. 529). Martin and Deuze (2009) note that economic qualities may be perhaps independence’s only point of clarity: “Despite a wide-ranging discourse of what independent actually means, a single unifying thread that is recognized throughout the industry is that an indie game cannot be created under the creative or financial control of one of these external entities” (p. 278).

In conjunction with this, some scholarship on independent media describes independent producers as not merely different from mega-capitalists but as outside of capital or unmotivated by financial capital. Oakes (2009) remarks that “The small press community allowed people to simply write without concern for careerism or opportunism” (p. 85). She writes, “The foundation of these [independent] journals and presses wasn't just a hobby; it was a necessity” (p. 82). This concept of working while sacrificing financial and other comforts finds strong company with autonomists like Ross (2008), writing about corporate creative labor. Other authors repeat this notion that
independent media producers find at least some motivation outside of financial capital. Westecott (2013) cites independents being motivated by “self-expression” (p. 81), as does Ruffino (2013, p. 113); Le Masurier (2012) notes that making money may be part of the operation “but profit seems not to be the initial or primary aim” (p. 384), suggesting instead that independent workers are motivated perhaps by creative freedom and cultural capital (p. 392). Newman (2009) writes that “‘Indie’ connotes small-scale, personal, artistic, and creative” rather than the mainstream which “values money more than art” (p. 16). This suggests a strong tie to creative industry rhetoric signifying these kinds of motivations drive workers across the creative economy.

Ironically, these descriptions claiming workers differentiate themselves from the mainstream by not being motivated by financial interests makes them, according to Florida (2012), very much in the mainstream of creative labor. The distinction between independent and mainstream in this context may or may not relate to the individual laborers, but it more closely ties to differences in larger aims of the production. The distinction, as suggested by Newman (2009, p. 16) is between work driven by primarily non-financial aims and projects that see financial reward as primary; as such, the lack or reduction in financial motivation does not mean independence as a term collapses under the scope of creative labor.

**Is independent a meaningful term?**

Despite all of the extensive dialogue attempting to establish a consistent discourse on independence, some scholars do simply give up and argue that the term is essentially arbitrary and only meaningful in specific context. Newman (2009) writes “…the reality (as opposed to the myth) of indie culture is that despite the rhetoric of opposition, there is
no real divorce between mainstream and alternative forms of media” (p. 21). He rejects the idea of indie having any meaningful objective quality, writing, “Independent cinema’s authenticity as an alternative to Hollywood is sustained by the notion of the filmmaker as a creative artist working unhampered by corporate influence” (p.24). This suggests that indie only has any authenticity—thus, distinction as a subculture, in his assessment—because the audience or creator perceives it as being separate from the mainstream and because the audience believes that the author is singular and uninhibited by other forces (and, he argues, this is untrue at least for film). Perren (2012) asserts a similar point: “Of course, this [interchangeable use of indie and independent] has only contributed to the confusion about the meaning of each label—a confusion that has often served the desires of media companies in promoting their films to particular groups as 'hip,' 'edgy,' and 'cool’” (p. 7). Oakes (2009) cites a student observation: “Indie's really just hipsters in skinny jeans. That's all it is anymore” (p. 194).

This perspective that sees independent as confused as a term does not argue against its existence; rather, it argues that it has been “incorporated” (see Fiske, 2003) and become a brand or style marker specific to a particular medium. Oakes specifically writes “Indie, like punk and many other subcultures before it, has been branded by corporate culture and repackaged as an aesthetic” (p. 195). Likewise, Newman (2009) calls it a buzzword, “a term whose meanings—alternative, hip, edgy, uncompromising—far exceed the literal designation of media products that are made independently of major firms” (p. 16).

What the manifold discourses of independence reveal is that, confusing as it is, independence—that is, in Newman’s use, “the literal designation of media products that
are made independently of major firms”—marks a meaningful distinction from creative and cultural industries as wider concepts. To examine a self-identifying independent community may reveal networks, practices, motivations, and conditions that are isolated to independent communities, or at least operate in different ways. At the same time, those conditions may in fact mirror the conditions experienced across other non-independent segments of both the cultural and creative industries, signifying that independence has less importance on the lived experiences of those in independent communities.

**Independents in creative industries literature**

The problem with assessing the place of independents in the larger body of creative labor literature, and thus how participants experience decision making capacity in practice, is that it has been poorly conceptualized and minimally discussed. Leadbeater and Oakley (1999) write about what they call “independents” in the cultural sector, yet what they describe does not conform to the definitions of independents provided by more recent literature on independent media. Rather, they use “independent” in reference to workers who are self-employed or work frequently in temporary and seasonal jobs (p. 20). As they use it, independent marks a certain personality that is more closely aligned with the much broader concepts of the creative class suggested by Florida (2012) or Pink’s (2001) “free agent.” Florida (2012) draws no real distinction between dominant production models and those that exist apart from them. Caves (2002) does discuss at length the places of independents in various culture industries, but he suggests that their independence is mandated by a lack of access to employment in dominant production environments. Independent cultural labor that Caves describes is what would-be A-list artists do between contracts or to get a foot in the door: bands send demo tapes to
hopefully get noticed by a talent scout, fine artists send slides to galleries, and authors send unsolicited manuscripts to agents. He gives little consideration to artists acting intentionally on their own: “With the recent consolidation of several record companies… many artists… consider managing their own promotion and record distribution over the internet. But one website among the endless horde, with no mediating gatekeeper, is probably an inadequate substitute for an established label” (p. 66). Going into the subject no further, Caves simply disregards independents as lesser to major industries on a vertical scale, as opposed to parallel horizontally as authors like Oakes (2009) see some independents. It further cuts off discussion of how independents may actually operate independently with legitimate space to render their own decisions, rather than only serving as an exploited farm system for mainstream industries.

There are some attempting to fill in the gaps, looking particularly at how independents operate. Large bodies of literature have emerged concerning independent communities in various media such as film (Newman, 2009 and 2011; Perren, 2012; Berra, 2008; Holmund and Wyatt, 2005; King, 2005), music (Milner, 2012; Azerrad, 2001; Cummins-Russell and Rantisi, 2012; Hesmondhalgh, 1999; Luvaas, 2009), and games (Martin and Deuze, 2009; Lipkin, 2013; Ruffino, 2013; Whitson, 2013; Westecott, 2013; Guevara-Villalobos, 2011; Anthropy, 2012). Aside from Oakes (2009), this literature largely concerns itself only with its respective industry, leaving space to explore common beliefs and practices that might connect independents categorically to wider concepts of cultural or creative labor. It remains unclear to what extent labor across independent cultural industries and media forms are comparable to each other and dominant industry paradigms from which they are presumably independent.
Video Game Production

The video game industry and video game production as practice serves as a valuable lens into both the creative and cultural labor ecosystems because it straddles both in terms of its history and practices. As a field of study, this has only recently begun to be explored. Broader studies of the creative or cultural industries refer to the games industry (Caves, 2002; Florida, 2012; Elberse, 2013; Leadbeater and Oakley, 1999; Murray and Gollmitz, 2012; Banks and Hesmondhalgh, 2009), but often they do so in passing definitions of what industries qualify as creative or cultural in introductions and footnotes. Other researchers have assisted filling in the gaps of this broader research, looking specifically at the labor conditions of the games industry (Kerr, 2006; Dyer-Witheford and De Peuter, 2009; O’Donnell, 2011; Anthropy, 2012; Montfort and Bogost, 2009; Whitson, 2013; Fisher and Harvey, 2013; Westecott, 2013; Guevara-Villalobos, 2011; Martin and Deuze, 2009).

While the attention to labor in games is increasing, there are some notable gaps in the work. Book-length examinations of labor in the games industry exist but have fallen out of date quickly; Kerr’s (2006) *The Business and Culture of Digital Games* is widely cited as a source for information of the labor practices of the dominant industry, but its data is increasingly outdated, depending on numbers from the late 1990’s and early 2000’s. O’Donnell (2011) speaks to the problem: he argues production is often neglected because of a lack of access to field sites, “the inclusion of Non-Disclosure Agreements (NDAs) and other mechanisms by which game companies attempt to control and structure communications out of their companies” (p. 272). His book *Developer’s Dilemma* was published in 2014 but relies of ethnographic data from the mid-2000’s, and
while it contributes substantially to accounts of labor within the mainstream games industry, especially in India, the data has fallen nearly a decade out of date since collection. Other authors speak of labor in the 1970’s and 1980’s (Montfort and Bogost, 2009) or labor within more accessible independent development communities, though these studies are frequently isolated from larger context and none apply to development in the United States (Most discuss communities in Canada as in Whitson, 2013; Fisher and Harvey, 2013; and Westecott, 2013. Guevara-Villalobos, 2011, addresses independent English development communities).

**Video games compared to other creative and cultural industries**

What these studies have begun to explore does however suggest that video game production labor, including independent labor, often match descriptions of labor in other creative and cultural industries. Kerr (2006) notes that “as a cultural practice [digital games] embody the liberal ideals of individual choice and agency” (p. 1), an idea that recalls the concepts of autonomy and independence authors like Florida (2012), Pink (2001), and Leadbeater and Oakley (1999) suggest characterize the creative labor market. Whitson (2013) notes how passion for work leads game developers to overlook poor working conditions (p. 122), also suggested by Dyer-Witheford and De Peuter (2009). Guevara-Villalobos (2011) and Ruffino (2013) find similar patterns of autonomy, free labor, and skill acquisition described as typical of creative and cultural industries as well. Florida’s (2012) proposition suggesting the importance of community appears in a number of texts concerning game makers as well (Westecott, 2013; Gouglas and Rockwell, 2013; Lessard, 2013; Joseph, 2013).
Despite the many similarities suggested by the emerging literature on labor in the games industry, there are aspects that suggest its distinction from other cultural industries. One reason the literature identifies is that games exist at the intersection of art and craft unlike other media, meaning games may involve a wider collaboration of creative practices. Dyer-Witheford and De Peuter (2009) write, “Making and playing digital games involve combining technical, communicational, and affective creativity to generate new, virtualized forms of subjectivity” (p. 5). This raises a question: how might game development differ in practice from labor in other creative industries in which a worker might employ only technical, communicational, or affective creativity? O’Donnell (2011) notes that games cross disciplines “between art, computing, and game design” (p. 282). This suggests that those in the video game industry might have more cross-compatible skills, making them more marketable in other non-game related fields in other creative industries like software design or product management. The implications of game development’s intersections with other industries may mean labor conditions and decision making capacity for those involved in games differ considerably from other cultural industries.

A brief history of video games

The games industry further differentiates itself from other cultural industries because of its relatively recent emergence as a media form. Visual arts predate recorded history, modern mass-produced literature emerges before the Industrial Revolution, cinema is over a century old, the modern recording industry is nearly as old, and the television industry became a part of the cultural landscape in the 1950’s; video games begin as experimentation in the 1950’s but only emerge as noteworthy commercial
products beginning in the 1970’s. Kerr (2006) suggests this may be meaningful because it
was in this time that public regulation of the media and communications institutions were
being undone and public investment was rising in the sciences. This suggests a stronger
connection between games and computer science than culture or media industries. Before
Pong’s release in 1972, there were games on the PDP-1, the most famous of which was
Spacewar! released in 1962, but these games were hardly commercial; the PDP-1 cost, by
Montfort and Bogost’s (2009) estimate, more than $100,000, meaning the only places
likely to have the hardware were laboratories and universities (p. 7).

The added significance of these academic and tinkerer origins of the gaming
industry is its noncommercial origins—not necessarily because those making games did
not want money but because until the 1970’s, thinking games could make money was
farcical. Montfort and Bogost (2009) also describe how business executives treated early
game developers like part of the manufacturing process as opposed to artists or creatives:
despite single-handedly creating the version of the game Adventure for the Atari 2600,
Warren Robinett’s name and credits did not appear anywhere on the game packaging.
The programmers that eventually left Atari to form soon-to-be mega-corporation
Activision worked for small salaries in anonymity, and when they confronted
management, the president of Atari told them, “You are no more important to Atari than
the person on the assembly line who puts the cartridges in the box” (qtd. in Montfort and
Bogost, 2009, p. 100). O’Donnell (2011) notes that most of the work put into a game
remains invisible, further suggesting a difference in the way game designers differ from
the perceptions of creators in other fields who may more frequently cultivate cults of
personality.
The video game industry has become a dominant cultural force in the decades following its first commercial production. Following an economic crash that began in 1983, the industry reemerged in the late 1980’s and through today as an increasingly significant part of the modern media landscape. The New York Times assessed the games industry in 1991 at $4.7 billion or nearly $8.3 billion adjusted for inflation in 2016 (Shapiro, 1991); The LA Times cites the industry’s growth doubling between 1995 and 2001 from $10 billion to $20 billion worldwide annually (Pham and Johnson, 2001). Current numbers by the Entertainment Software Association (ESA) put revenue at $23.5 billion in 2015 (ESA, 2016). While the fastest film to gross $1 billion was *Star Wars: The Force Awakens* in 12 days (Pallotta, 2015), *Grand Theft Auto V* accomplished the same task in three days (Kain, 2013). With the proliferation of tablets and smartphones, games are spreading across wider demographics; 2014 ESA figures suggest a diverse range of players overall, roughly split evenly by gender, with notable growth in playing by women 50 and older (ESA, 2014). This last note further suggests video games as a cultural form still have not completely penetrated the full depth of the market for both women and older people, perhaps in part due to inaccurate stereotypes about game players (see Juul, 2010, p. 9-10).

In connection with the games industry’s relatively recent emergence have been dramatic changes to the technology of creating games. Montfort and Bogost (2009) explore how the serious limitations of early development platforms meant developing a game was a demanding intellectual undertaking, relying on skills that were largely inaccessible to the public beyond the university setting. Anthropy (2012) explains, “To have access to a computer, then, generally required being connected to an engineering
school” but there was also the barrier that people needed to know how to code (p. 24). In the late 1970’s and 1980’s, people could learn to code with handbooks and specialist magazines for kit computers, but the increasing black-boxing of hardware and the difficulty of tinkering made access to design skills for novices less accessible after the 1980’s (see Swalwell, 2012).

Early games were often made from the bottom up to match the specific hardware on which a game would be played, but the 1980’s saw the rise of game engines which would facilitate rapid development by reusing code instead of forcing the user to develop everything from the ground up, such as Pinball Construction Set (1983), Garry Kitchen’s GameMaker (1985), and ASCII’s RPG Maker (1988). In addition to these kit-type products, the 1990’s saw the emergence of commercial games permitting and encouraging third-party or home development on their proprietary engines, especially id Software’s Doom (1993) and Quake (1996) and Epic’s Unreal (1998). Descendants of this model, such as Valve’s Source, Crytek’s CryEngine, and the current Unreal Engine remain in use for professional and student development using licenses for commercial products.

Parallel to new developments in professional or prosumer-grade engines to facilitate the creation of games quickly and at high quality, other engines serve students, children, and amateurs first learning how to make games. Anthropy (2012) walks potential creators through this in depth, suggesting, for instance, “If Game Maker and The Games Factory are too intimidating, try Scratch” (p. 144). Programs like Scratch, Twine, and Tynker recreate the simple interfaces of much earlier amateur-grade engines with greater applicability and direct pathways to base programming languages, meaning
those who want to move from just using the program to coding directly can use these programs as training wheels. This connects to the patterns leading to labor and product overabundance which Caves (2002) suggests is endemic to the culture industries, but the fast pace at which access to the ability to create games has increased may affect its market differently compared to other media forms.

**Distributing video games**

Not only are games now easier to create, but the proliferation of networks and the internet mean significant changes to how games are distributed. While early games could be hand copied from magazines to personal computers (see Swalwell, 2012), until the last decade or so, most games required physical production and distribution. Early arcade cabinets or cartridge ROMs were expensive to produce and required considerable space. Profiting from the expensive process of creating and recreating the tangible products requires using large-scale distribution networks and retail establishments which require large up-front costs: Kerr’s (2006) now outdated estimate suggests between $3-10 million to produce a master copy and the same amount to market it (p. 46). The retail model of game distribution divides revenue between game developers, game publishers, game manufacturers, transportation companies, and retail chains. In an interview for Forbes.com, Chris Swain (Irwin, 2008) states, “Currently a game that you go to Best Buy and purchase—the publisher retains about 17% of the retail price.” The traditional distribution system not only divides the share of earnings amongst many parties, but it also requires high up-front investments that form barriers for upstarts attempting to break into the market without the financial support of a publisher.
Other distribution models did exist prior to the proliferation of the internet, especially for independent games: Parker (2013) and Lessard (2013) refer to freeware or shareware, games which were distributed for free or very low cost by floppy disk (Anthropy, 2012, p. 36). Anthropy (2012) reminisces about these games and their compensation system: a suggestion for the person playing the game to donate to the creator through the mail (p. 36). Many scholars note, though, the rise of digital networks contributes substantial changes; Anthropy (2012) notes that the arrival of BBS as a digital communications technology from the 1970’s to 1990’s meant “games could be passed from computer to computer… without the need for physical copies and the associated costs. This means that non-professionals and non-publishers were able to transmit all sorts of games to players” especially those that “could never have come from the hit-driven games mainstream” (p. 36-7). Simply put, Anthropy notes, “The Internet in particular has made self-publishing and distributing games both possible and easy” (p. 9).

Westecott (2013) suggests technology is a critical catalyst to what she calls “DIY games”: “The Internet allows makers to act locally whilst being connected globally, building connections directly between communities of interest regardless of physical location. Digital technology has been a central enabler for the growth of the modern DIY movement” (p. 84). The emergence of platforms like Steam or Xbox Live means more efficiency for publishers as well; Swain notes in his interview (Irwin, 2008) that with digital distribution, publishers “retain 85% of the retail price.” Smartphones and tablets are a new extension of distribution, and though literature on the subject has begun to emerge (see Hjorth, 2011, and Kim, 2013), the implications of these platforms have not yet been significantly explored.
Training and entering the industry

Unlike long-established media products, the novelty of the video game industry means it does not have a longstanding established set of training conventions, further distinguishing it from other cultural industries. In spite of its early connections to universities and research institutions, people attempting to enter the games industry have a complicated connection with education, depending on the time period. Kerr (2006) notes that early developers were self-taught, and Leadbeater and Oakley (1999) maintain that one can enter the industry without post-secondary education entirely: “the computer games industry is a prime example where young entrepreneurs have made it often because they decided not to go to university but to develop games instead” (p. 21). Kerr (2006) supports this idea in part, suggesting that companies often “look for a passion for games, talent and game industry experience, or a significant amateur game modification (modding) portfolio” (p. 89). Others have referred to this idea that a self-made portfolio based on one’s self-taught skills is sufficient to enter the industry (Scacchi, 2010; Postigo, 2010), but Kerr (2006) notes, even in the mid-2000’s, an increasing number of people entering the industry did so with “general degrees in computer science, animation and art or more specific qualifications in game design and technology,” including “hard skills” like programming languages, physics, and math, or experience with professional-grade tools like Maya and Photoshop (p. 89). More recently, degrees may be even more significant; there were enough undergraduate game design degree programs for Animation Career Review to provide a list of the top 50 for 2013 (ACR Staff, 2013). In addition, schools offer dedicated masters programs in game design and related skills. What effect these degrees have on the access to employment or other potential work-
related decisions compared to access to those decision in the self-trained portfolio era remains to be investigated.

**The independent sector**

In conjunction with the many recent changes to the games industry, a thriving independent sector has emerged which is only beginning to be understood. Though only recently being recognized, the movement’s most prominent organization, the Independent Games Festival, has existed and provided prizes for games as far back as 1999. Blog posts and manifestos also appear around that time referring to independent games: the anonymously drafted *Scratchware Manifesto*, written in 2000, calls for people to “develop games the right way, the fearless way, the independent way” (n.p.). Greg Costikyan (2005) subsequently agrees with that position, attacking bloated budgets and development times. Michael’s *Indie game development survival guide* (2003), a trade book, marks recognition in print that there were indeed independent developers at the time, even though none of the texts mapping the industry and its history recognized it (see Kent, 2001, and Johns, 2006). Kerr and Flynn (2003) refer to independent actors in the global video game industry, but the definition of “independent” clearly diverges from its current application: they refer, for instance, to EA as an independent publisher despite also calling attention to its then annual profit of $1.5 billion (p. 100; see also Kerr, 2006).

This is not necessarily an oversight on behalf of the writers, though. One problem with drawing attention to an independent movement in the video game industry is that what are definitively independent companies now were representative of the industry more widely earlier on. Dyer-Witheford and de Peuter (2009) describe the rise in the 1990’s of smaller studios spun off from “defectors and deserters” from the mega-
publishers. They describe as customary “for a would-be game entrepreneur to start his or her career working in a big studio—as a programmer, a designer, perhaps even as a game tester—before attempting to strike out on his (and occasionally her) own” (p. 42). This trend goes back as far as the now megalithic Activision which spawned from defectors from Atari in 1979 (see Montfort and Bogost, 2009).

If there is a reason independent companies become noteworthy more recently, it perhaps follows from the intense consolidation in the industry starting in the 2000’s. Dyer-Witheford and de Peuter (2009) note that by 2005, “nearly all the initial wave of smaller Canadian domestic studios spun off from EA showing any degree of success had been reabsorbed, either by EA itself or by other multinational publishers such as Vivendi, THQ, or Take-Two Interactive” (p. 42-3). Any independent publishers remaining, whatever they mean by independent in this case, face huge disadvantages unless they sacrifice intellectual property rights or creative control (p. 43). It is worth noting as well that consolidation has only expanded since 2005: THQ declared bankruptcy in December 2012 and Activision and Blizzard merged in 2008. Activision-Blizzard managed to split itself from owner Vivendi in 2013, but Vivendi has since acquired an extensive stake in publisher Ubisoft and controlling stake in mobile publisher Gameloft.

It is only relatively recently that literature begins to use “independent” referring to games in a way that would be consistent with the term’s use in contemporary games literature and culture. Martin and Deuze (2009) write, “Throughout the community of game players, developers, and journalists, the term ‘independent’ is used in a number of ways to describe a type of development next to, or juxtaposed with, the mainstream process of creating, marketing, distributing, and playing digital games”(p. 277). They
emphasize economic independence as McRobbie (2002) does in her definition, but like Kerr and Flynn (2003), the scales of the companies to which Martin and Deuze refer feel larger than later scholars would comfortably call independent or indie (see Guevara-Villalobos, 2011; Whitson, 2013; Ruffino, 2013; Lipkin, 2013): they refer to Halo developer Bungie as an independent game development company, proceeding to make comparisons between its product and an MFA project Flow. Their conclusion that independent game developers are not as oppositional as literature on subculture and resistance suggests fumbles over this problematic comparison between much smaller development operations and the company responsible for creating Xbox’s mascot in Master Chief and most famous game series, Halo.

Subsequent descriptions of independent games, however, more consistently mirror those of other independent media. Like Martin and Deuze’s (2009), there are those that adopt a predominantly political-economic definition. Parker (2013) writes, “[I]ndependent game production went by other names (freeware, shareware, amateur, bedroom) and took place in insular, autonomous communities of practice focused on particular game-creation tools or genres, with their own distribution networks, audiences, and systems of evaluation, only occasionally connected with a larger marketplace” (p. 41). Lastowka (2013) describes “indie” as “the umbrella term used to describe games made by solo creators or small studios” (p. 9). Whitson (2013) positions both “independent” and “indie” in part financially: “independent” denotes lacking financial ties to mainstream publishers and “indie” being possibly “characterized by small teams and limited budgets” (p. 125). Stein (2013) also suggests the “indie scene” is in part referring to “the distribution and publication of a videogame” (p. 64). This sense of
independence clashes with the “farm system” concept suggested by Caves (2002), implying that the independent scene in video games may be more deliberate and a result of active decision making—horizontally differentiated, in Caves’ terminology rather than vertically differentiated—in comparison to independents operating in other media.

Independent games, at least as a brand marker, frequently derive from this combination of political economic factors and anti-mainstream design and stylistic sensibilities. Many of these games starting in the late 2000’s emphasize “mechanics, abstract concepts, and unique angles” (Burke, 2012) and feature “puzzle platformers, chiptunes and chunky pixels, simple game mechanics with complex outcomes” (Kogel, 2012). Lipkin (2013) describes them as stereotypically “stylistically nostalgic” (p. 15), though some recent titles like No Man’s Sky (2016), Rocket League (2015), and Path of Exile (2013) have begun moving away visually from pixilation and towards a more polished, mainstream aesthetic. Lipkin further notes that the emergence of an “indie style” comes in part as a natural consequence of what is easiest to produce for independent workers and the tools they have. Subsequent advances in technology making more complex systems easier to make might also account for the increasing complexity of more contemporary independent titles. This said, Lipkin also notes that with the popularity of independent games (and the style that emerges from the production process), other games (made independently or by major studios) may simply copy the style even though they have access to making more complex or polished games (p. 16). In that way, the discussion of independent game style (or more broadly the style of independent cultural products) is not necessarily related to the political economy of production.
The study of labor in video game development

The game studies literature has addressed and is continuing to address the presence of labor, and it has established some case studies on labor in independent communities. Montfort and Bogost (2009), in an extensive examination on game development for the Atari VCS, focus primarily on the capabilities and limitations of the development platform and console and its effects on the mechanics of development and design. This includes how the way that a screen would refresh contributing to developing unique strategies to develop within the hardware constraints. They do, as well, attend to other political-economic factors in development, such as the role of intellectual property and its exploitation in game development, release schedules, the values of developers within corporate structure, the relationship between the developing home market and the more technologically advanced arcade marketplace, and the effects of the infamous market crash on development’s economic viability. Their text’s focus remains on technology and providing a history of development on the particular platform, so it does not draw any meaningful attention to more contemporary development practices.

Other texts have offered more general assessments of labor in game development. Kerr’s highly influential text, The Business and Culture of Digital Games (2006), devotes chapters to development practices in addition to technology, and provides a comprehensive overview of the mainstream game development cycle (the process by which a game is conceived, financed, planned, developed, marketed and sold) for the period that begins roughly where Montfort and Bogost’s (2009) account ends in the late 1980’s and early 1990’s and into the mid-2000’s. She describes the games industry as a cultural industry that, as Caves (2002) suggests for other cultural industries, is
characterized by unpredictable markets. A predominant aspect of her analysis is the high initial production cost. Because of this cost attributed to paying for tools, development kits, licenses, manufacturing, marketing and distribution, she emphasizes the “strong incentive to maximize their audience” (p. 46). This also contributes to a predominant business model wherein “the publisher finances creative development largely through direct sale to the consumer” (p. 61). The account does not address the kind of independent publishing through digital distributors that come to be more prominent in subsequent years. Dyer-Witheford and de Peuter (2009), in addition to addressing many of the concerns raised in Kerr (2006), draw attention more directly to workers themselves, especially to exploitative working conditions. They also draw attention to unconventional games such as protest games, art projects, and political pieces, but they do not engage how they are produced.

More recently, scholarship has begun more explicitly engaging questions of labor in game production. From the mainstream production space, O’Donnell (2014) explores the labor of game production at smaller studios primarily in the mid to late-2000’s both in the United States and in India. The ethnography explores in particular the damaging effects of corporate secrecy on workers, how new workers are unable to learn from others across the industry, and how the use of technology (specifically customized tools engineered for particular projects and pipelines) make it difficult both for workers to learn useful information upon entering the field and transfer knowledge from project to project. Others have taken closer looks at independent producers. Fisher and Harvey (2013) examines women in the Canadian independent games space, looking both at influences from government organizations and programs as well as the ways participants
respond to them. Joseph (2013) analyzes a Toronto-based “indie game company” to explore, like Fisher and Harvey, the relationships between government funding schemes for developers and workers, particularly with respect to local geography.

However, the literature has its notable gaps. The discussions of labor in the dominant industry model such as Kerr’s (2006) or Dyer-Witheford and de Peuter’s (2009) are few and falling out of date. Even O’Donnell (2014), whose ethnographic work is deep and extensive and whose text is, as of writing, relatively contemporary, depends on ethnographic research conducted predominantly between 2004 and 2008. Perhaps because of their age, the presence of independents is poorly understood in relation to the industry at large. Studies of independent game development communities lack the scope of a book-length study and are isolated geographically. The majority of literature on independent games comes from a single issue of the Canadian game studies journal *Loading...* in 2013, and the articles therein refer to specific Canadian communities and practices, proposing policy suggestions applicable only to Canadian cultural contexts, often at the provincial or city level. Independent game producers in the United States are largely ignored in the current literature, despite being such a significant part of the industry.

What the literature on the video games industry reveals is that its differences from other cultural and creative industries, as well as the complexity of its independent sector, suggest considerable reason to explore it closely as a path towards exploring the interactions of newly emerging labor practices and experiences of decision making capacity. Examining creative industries and labor through the games industry in connection to existing studies of other cultural and creative industries offers a valuable
perspective on both cultural and non-cultural labor practices, and it facilitates a
discussion of cultural labor relatively unburdened by (comparatively) long-standing labor
stereotypes like the “starving artist.” The ability to create in this medium is a recent
invention for many, and massive changes to programs used to make games and
distribution platforms allowing anyone to make profit from their work mean a sudden and
still unexplored change in who makes games and what they can earn from making them.
This industry’s overlap with various components of the creative industries suggests that
the video games industry, and independent game communities especially, may serve as a
valuable subject for studies into contemporary creative labor and subjective experiences
of those practices.

Methodology

Decision making capacity

The subject of this research is labor in the creativity industries, but the particular
focus is on worker decision making capacity. The goal of employing this specific
language is to establish a focus on action or inaction by workers in practice as a means of
exploring worker agency. To reach such a point, one must begin with a theory of agency.
Emirbayer and Mische (1998) present an exhaustive view of the subject, but they
emphasize in particular the tensions between the focus on normativity and instrumentality
which are most significant in this research.

The perspective of agency as normative focuses on how action is guided by habit
and not necessarily active intention. Giddens (1984) describes agency as not “the
intentions people have in doing things but… their capability of doing those things in the
first place” (p. 9). As such, Giddens presents agency as an implication of power, such that
without the interference of the agent, things would have progressed differently. This impact the agent has is not related to intentionality in Giddens’ assessment, as he explains, “Agency refers to doing” (p. 10) and not intending to do. Giddens stratifies consciousness that precedes action between unconsciousness (which is inaccessible to the agent), practical consciousness (knowledge an agent has but cannot articulate), and discursive consciousness (knowledge the agent can articulate), but in spite of providing space for conscious thought and decision making, Emirbayer and Mische (1998) argue that he emphasizes practical consciousness and the less-than-fully-conscious recursive reproduction of structures, rules and resources (p. 978). The same can be said of Bourdieu (1984) who describes action as the consequence of “{(habitus) (capital)}+ field” (p. 101). These perspectives emphasize norms and habits, socialization and structure, in the predominantly semi-conscious process of taking action. While judgement and deliberation are not absent from these models of agency, these authors do not provide an adequate means of analyzing them.

Other theories more strongly emphasize structure and rationality, though they may also not fully account for the experience of rationality. Coleman (1986) combines a norm-based approach with an instrumental one, suggesting “actions are ‘caused’ by their (anticipated) consequences” (p. 1312), meaning actions in the individual context can be rationally connected to macro-level systems. This approach provides a means to find rationality post-action, but it is not as effective in understanding activity as an active, ongoing process. Alexander (1988) provides a more nuanced address, dividing action between interpretation (itself divided between typification and invention) and strategization. The goal is to reconcile, as Emirbayer and Mische (1998) explain, “the
normative and utilitarian perspectives by presenting them as complementary but analytically distinguishable dimensions of human action” (p. 967). They are critical, though, of Alexander’s emphasis on normativity, leaving invention and experimentation poorly theorized.

An effective conception of agency must recognize not only the role of habit, socialization, structure and instrumentality in guiding choice, but integrate these positions and recognize the agent’s complex role within it. To that end, Emirbayer and Mische (1998) conceptualize agency as follows:

[H]uman agency [is] a temporally embedded process of social engagement, informed by the past (in its habitual aspect), but also oriented towards the future (as a capacity to imagine alternative possibilities) and toward the present (as a capacity to contextualize past habits and future projects within the contingencies of the moment). The agentic dimensions of social action can only be captured in its full complexity… if it is analytically situated within the flow of time (p. 963).

This concept of agency recognizes it as a response to systems and other agents with respect to not only past actions and habits but also present circumstances and future goals. Agency is, in this theory, a conceptualization of the moment of action and the processes that contribute to action situated in time and context.

From this definition of agency, this dissertation employs an alternative term: decision making capacity. Like the theory of agency provided by Emirbayer and Mische, this research focuses specifically on discrete moments—decisions made in the course of labor within the context of that work. It takes into consideration past (habit), future (goals and alternatives to habit) as well as the present (the conscious capacity to review the past and future in the moment of decision making with respect to contemporary context). However, the emphasis in this case is not only on the moment of action but the capacity for action (as well as the meta-capacity for action—the possibility of deciding that it is
time to render a decision or to defer doing so). By employing decision making capacity rather than agency as the dominant terminology, it is easier to conceptualize and analyze an agent’s ability to act without necessarily having to focus on an action already completed. It also encourages a specific examination of decisions not taken that could have reasonably been taken, rather than an attempt to rationalize post hoc already rendered decisions.

It is worth acknowledging that it would be impractical and inappropriate to suggest any possible course of action is a discrete, meaningful one. Sewell (1992) elaborates that “part of what it means to conceive of human beings as agents is to conceive of them as empowered by access to resources of one kind or another” (p. 10). As such, agency is not merely the consequence of increased access to a resource or potential decision, but rather agency results only when that access is empowering. Thus one might imagine circumstances in which an increase in resources may be empowering, such as giving a man a car when he needs one to travel to a job, as well as seeing that same resource as not being empowering, such as giving the man a car on an island without access to gasoline.

Furthermore, it is analytically impractical (and, according to Sewell, unnecessary) to describe every literally distinct decision as equally worthy of analysis. For instance, an individual with one million dollars and one cent is literally able to make more decisions than an individual with one million dollars flat, in that she can spend that one cent that the other individual does not have. With that said, a penny is often such a meaningless amount of money that both individuals have (with respect to their financial resources) the same decision making capacity. The same can be extended to the difference between a
worker’s decision to go to work at nine sharp or 9:01. The cutoff is necessarily arbitrary
and depends on the subjective perceptions of the agent, though. If the worker believes
that traffic will be worse if he leaves one minute later, then the decision to leave one
minute later is meaningful. In order to attend to this, analysis of decision making capacity
does attempt when possible to account for decisions that are discretely meaningful to the
agent.

**Assemblage theory**

The purpose of this dissertation is to understand decision making capacity in the
creative industries in network society. In order to evaluate the complex possibility space
in which workers act, this research employs assemblage theory, as proposed by DeLanda
(2006), as the structuring metaphor for discussing networked subjectivity. This theory
originates in Deleuze (Deleuze and Parnet, 2002), where the author describes
assemblages as “a multiplicity which is made up of heterogeneous terms and which
establishes liaisons, relations between them, across ages, sexes, and reigns – different
natures” (p. 69). DeLanda (2006) clarifies this position in contrast with a social ontology
based on an “organismic metaphor” whose basic concept is “relations of interiority: the
component parts are constituted by the very relations they have to other parts in the
whole” (p. 8-9). DeLanda describes assemblages conceptually as an alternative to
“organic totalities,” and rather than relations of interiority, assemblages are “wholes
characterized by relations of exteriority” (p. 10, italics original). The assemblage can be
taken apart while still being used as part of yet another assemblage. He describes, for
instance, the idea of considering an organism as an assemblage whose final form is the
result of different components working together not because it is logically necessary but
only “contingently obligatory” (p. 12). One could, as an example, easily discuss how missing teeth or damaged organs change the body by beginning with conceptualizing the relations of exteriority between the organs and each other, thus leading to the body as a whole. That body can serve as a component of another macroscopic assemblage consisting of that body and others into a group of friends, those groups into organizations, and so on. In such a way, the assemblage concept DeLanda proposes is more fluid and unrestricted to focusing on only the micro-level (social systems at the level of the individual but without the capacity to connect one body to a large company) or the macro-level (seeing social systems at the company level without being able to distinguish the individual people who compose it).

DeLanda’s methodology for exploring the assemblage consists of distinguishing its networked components along an axis of materiality and expressiveness. By materiality, DeLanda means the tangible properties of the component—the space it takes up, its chemical properties, its mass etc. Expressive dimensions refer to those aspects of the component that bare meaning, though DeLanda specifically notes that such meaning cannot be explored except through decoding (p. 15). The axis of material and expressive roles relate to causality. DeLanda explains, “While material components include the entire repertoire of causal interactions, expressive ones typically involve catalysis” (p. 22). The material components establish the physical limitations of possibility within which activity can occur while expressive components provide the catalyst that narrow that broad set of possibilities into a much more narrow set of those that are likely. DeLanda presents the example of social action, noting that while people might be capable of acting completely randomly, they are often affected by “the weight of tradition or the
intensity of the feelings” (p. 23) that might encourage particular actions and discourage others. The result of this material-expressive axis is the proposition of causality in the assemblage that is not directly linear (“this causes that every time”) but rather probabilistic or statistical (“This is more likely to occur in this situation”).

Assemblage theory also presents an effective way of bridging “the micro- and macro-levels of social reality” (p. 17). DeLanda describes assemblage theory as “recurrent,” meaning that assemblages always exist in populations (regardless of how large) “generated by repeated occurrence of the same processes” (p. 16). The result is that the assemblage acquires traits collectively as a result of the actions of its composite population. The composition of this assemblage can subsequently join with other components and populations to compose new assemblages at larger scale. DeLanda provides the example of “the market” to demonstrate. The market is an assemblage whose components include the tangible space for transaction, the people interested in selling, the means of transportation, and so on. Such local markets can interact to form new assemblages: regional markets. Those in turn form parts of provincial markets and subsequently national markets. Just as the smallest market forms as a coherent assemblage through the territorializing effects of certain processes at the local level, the same territorializing will occur to establish the markets of larger scale. The example thus demonstrates that the concept of the assemblage can provide an agile approach to contextualizing components of smaller-scale assemblages (such as an individual worker) against the capacities that emerge at larger scales (the processes and capabilities of the company that employs many workers).
Understanding and comparing decision making in assemblage theory

Taken together, assemblage theory can be employed to describe agency and decision making capacity by focusing particularly on the material-expressive axis which assesses the causality of emergent practice and the agent’s relationship to that practice. Assemblage theory presents through this axis the possibility space for decision making: from the material dimension, it defines the material boundaries of practice and from the expressive it defines what might catalyze a particular course of action. The space formed by these dimension is where agency emerges as decision making capacity. Taking Emirbayer and Mische’s (1998) and Sewell’s positions into account, agency is the degree to which available resources and decisions empower potential action, both in operating within and upon the assemblage components. Where the increased availability of a resource creates more opportunities to make decisions, and where those decisions empower the worker, it can be said that this would indicate an increase in decision making capacity. For example, if someone requires money to purchase software that will facilitate product development, one can say that money in this case increases decision making capacity by enabling access to an otherwise unavailable empowering choice. Likewise, if a resource does not have an empowering effect on the person, either because access to that resource does not affect available choices or because choices made available are not empowering, then in this instance that resource would not affect decision making capacity. In the example above, a software developer would not be empowered if given access to software that does not work on the worker’s operating system. It should be noted that, as addressed in Scheibehenne et al. (2010), there is interplay between agency and other affects like stress or happiness, and by evaluating the
expressive qualities of decision making moments as processes, assemblage theory also facilitates examining what motivates someone to forgo decision making capacity in favor of positive affects or maintaining other resources like time and social capital.

This research in context

The use of assemblage to discuss labor, while relatively uncommon in production studies or analyses of creative labor generally, is not entirely unique to this work. Giddings (2006) and Taylor (2009) both use the term “assemblage,” though they derive it from Latour, via Dant (2004), and employ it for the purposes of addressing the interactivity of players to video games rather than the workers who create the game. White (2015) too discusses assemblage in passing (this time, from DeLanda), again in reference to consumption. That said, questions posed in the article are greatly similar to the purpose of this research: he asks in relation to working women in Japan and routines of media consumption, “Does the assemblage of media institutions, communication technologies, and distribution channels afford more or less agency?” (p. 56). White’s discussion of assemblage, though, is brief and otherwise unrelated to his arguments. Dittmer (2013) engages DeLanda’s assemblage theory more directly, though he does so from a perspective of geopolitics. In so doing, though, he draws DeLanda and Latour together is addressing how assemblage theorizes posthuman agency, distributed through non-human agents (p. 5). Dittmer notes, as has also been discussed earlier in this chapter, the significance of the theory’s ability to bridge micro and macro-level analysis—in his case, between traditional macro-level studies of geopolitics and individual agency (ibid). The work most similar to this dissertation is Joseph (2013) who employs DeLanda’s assemblage theory to discuss the Toronto independent game development community. His article serves, in his estimate, as a demonstration of the value of such an approach to understand production “not...
as an object over determined by global capital’s immanence towards new forms of exploitation. Rather it is negotiating its way through capital, state bureaucracies, aesthetics, ad hoc decision making and the flows of bodies through urban spaces” (p. 92).

Regardless of the relative rarity of this specific theory’s use in literature on production and labor, its purpose remains consistent with the research objectives of other studies of production culture. As described by Mayer et al. (2009), “production studies borrow from the social sciences and humanities, but, perhaps most importantly, they take the lived realities of people involved in media production as the subjects for theorizing production as culture” (p. 4). This dissertation adopts this focus and methodological practice, only testing the boundaries by further extending production studies beyond the boundaries of media into other industries within creative labor. As other production studies do (see Hesmondhalgh and Baker, 2011; Lotz, 2009; Stahl, 2009; Schiller, 2016; and Mayer, 2009), this work calls for and gathers empirical data involving “the complexity of routines and rituals, the routines of seemingly complex processes, the economic and political forces that shape roles, technologies, and the distribution of resources according to cultural and demographic differences” (Mayer et al., 2009, p. 4). It therefor establishes a meta-theoretical continuity with other literature within this interdisciplinary field.

**Data collection methodology**

This research relies on existing accounts of labor in various creative industries. These include primarily accounts of labor in media production which are more common than qualitative accounts of labor in non-cultural creative industries. As previously addressed, much of the literature on non-cultural creative labor derives from broad statistics; these too are employed but they are contextualized when possible by qualitative
accounts of the experiences of the populations in question. In addition to studies of various working populations, the research examines artifacts of that labor found on the internet, including message boards, websites, drafts of union contracts, and other evidence of the compositions of labor assemblages across various creative industries.

To further address the relative absence of qualitative studies of labor in creative industries, additional research has been conducted. This consists of twenty-one unstructured qualitative interviews conducted with members of the New York City independent video game making community during the summer of 2015. Interviewees range from ages 27 to 47, with an average age of 32.25. The sample includes both male and female participants of various racial and ethnic backgrounds. Interviewees explain they have been involved in making games for anywhere between a year and 18 years, with a median number of years working of 3. Interviewees were recruited based on being adults who work in New York City (Manhattan as well as the outer boroughs of the Bronx, Queens, Brooklyn and Staten Island, though no interviewees report living in or working in Staten Island or the Bronx) and consider themselves to be professionals in the independent game making community. Additional information was acquired through participation in New York City area professional and social events primarily attended from 2014 through 2015, as well as information posted on websites and social media.

Professional versus non-professional labor

It is necessary to address the amateur or hobbyist versus professional divide across the broader scope of labor. This dissertation’s subject matter is the professional creative worker and not the amateur or hobbyist. The problem naturally is how one defines the difference between the hobbyist and the professional. Leadbeater and Miller
(2004) provide a vague definition, suggesting that a professional earns more than fifty percent of his or her income from the activity, or that “Professionals are distinguished by the nature of their knowledge,” that they are “more likely to understand the theory behind good practice” rather than simply knowing good technique (p. 22). What distinguishes professional from amateur, they suggest, is knowledge, time, and money earned and invested in the activity (p. 24). However, this definition at best is too general and leaves out marginal figures and young practitioners who have yet to earn from their labor but are otherwise working as hard as the experienced “professional.” In their use of an example of a tennis player who earns money from coaching rather than play, their definition excludes those who earn principally through teaching; by this logic, Mozart ceases to be a professional composer when he earns his money from teaching students in private lessons at times of financial hardship.

Consider also the case of an entrepreneur who invests a personal fortune into a business that at first earns no money. Does that person simply not have a profession because they are not yet profitable? Does the worker go from professional to amateur and back depending on the financial success of the business? Or are they professionals because they have invested a lot of money? How much money is enough to distinguish a professional from a non-professional? It is illogical to make these kinds of concrete assessments when the distinction between professionals and non-professionals is so complicated. It is best to say that the professional is not only someone earning “a living” from their profession, but also it includes one who fully intends to make some reasonable amount of money from the activity in question at some point in the future.
Chapter breakdown

The rest of this study is composed of five additional chapters. Chapter 2 investigates the significance and experience of independence in the creative industries. It particularly explores how independence for workers is not a matter of being independent or being dependent; rather, independence is a continuum of variable attachments and detachments from other parts of the labor assemblage that typify conventional work practices. This chapter emphasizes the way in which independent labor is both liberated from components of the work assemblage but also isolated from them, meaning workers can experience both freedom and limitation that affect their decision making capacity. In addition, the chapter explores the reasons workers may choose to become independence or be pressured into independence by other forces within the network, calling into question attempts to unify independent workers by virtue of their independent status alone.

Chapter 3 explores one of the central resources involved in labor and decision making capacity—financial capital. The chapter begins by exploring the role that existing wealth can have on a worker’s capacity to make decisions in work, noting in particular how important financial capital is for independent workers, who by virtue of independence have fewer resources provided through other structures compared to traditional laborers who are supported by what an employer provides. In this section, the chapter considers changes within creative industries that place increased financial burden on workers who previously experienced greater stability under traditional employment. Subsequently, the chapter explores potential sources of income for workers without traditional employment, including side-work, family support, venture capital, government
assistance, and crowdfunding. The chapter reveals how cultural labor, by virtue of its desirability and other factors, make the experiences of decision making capacity for workers different than experiences of those in non-cultural creative industries. To conclude this chapter, a case study is proposed which analyzes the market conditions experienced by independent game developers in the contemporary PC and mobile marketplace, further supporting the argument that cultural labor and non-cultural creative labor contribute to different experiences of decision making capacity.

In Chapter 4, focus shifts from a worker’s financial resources to the context of work in time and space. The chapter explores data on when and where workers across the creative industries work, both by choice and by command. The data suggests that creative workers experience longer, less predictable schedules and work increasingly outside of stable workspaces, including at home and social spaces. The chapter continues with an analysis of the motivations for this expanding work context and their connections to decision making capacity. These motivations may be imposed from elsewhere in the assemblage, such as mandates by employers or pressures from unchangeable deadlines, or they may be less concrete. Workers may be motivated by ideological factors but also for personal reasons such as to maintain personal wellbeing, spend time with loved ones, and front-load their career early in their professional lives. The data reveals a complex network of motivations that show the practicality and benefit of the expanded and precarious workday for some, but it also points to spaces in which employers take advantage of workers’ capacity to work beyond the traditional scope of office work in unreasonable and exploitative ways.
Chapter 5 further investigates the context of work, moving beyond labor at the personal level and into the role of communities on the decision making capacities of creative laborers. The chapter investigates two kinds of communities: informal and formal. Informal communities are temporary and form contingently around available focal points, such as the water cooler or a local bar. Informal communities of practice provide a huge benefit especially in their capacity to provide space for the development of social capital between workers, but because the communities are inconsistent and impermanent, workers that interact informally do not draw from a larger, persistent pool of resources. This is the domain of formal communities of practice which, by virtue of their stability and funding offer both space for informal communities to form but also additional provisions. The chapter explores four types of these formal communities: firms, unions, professional associations, and institutions of higher education. Each provides for workers and affects decision making capacity uniquely, and while unionization is less common in many creative industries, this chapter reveals how other structures, especially professional associations, have risen to fill many of the needs of non-union workers. While not a replacement for the role of unions, specifically in the ability for collective bargaining, professional associations demonstrate how creative labor is capable of maneuvering within the assemblage of labor to construct new structures to affect a community’s decision making capacity in the absence of existing support.

The dissertation concludes with a review of the current study and its implication for understanding decision making capacity in labor generally, addressing the key questions introduced in this chapter. It also addresses the significance of the study and areas for further investigation. It emphasizes the division within the creative industries
moniker between different kinds of work, especially between cultural and non-cultural creative labor and between independent and traditional labor arrangements.
CHAPTER 2: Independence

When it comes to labor, the term “independence” evokes a number of associations: freedom (Pink, 2001), absolute autonomy (Berra, 2008), being outside of the mainstream (Oakes, 2009), anti-authoritarianism (Lipkin, 2013), authenticity (Azerrad, 2001). Being independent conveys the impression of a certain degree of control over work related decisions, but what happens when the idea of independent labor gets interrogated beyond its often utopian discourse? As a term, independence connotes freedom, but it is more accurate to say that independence is another word for isolation. Sometimes, that isolation is from oppressive workplace policies, nosey and demanding coworkers, and from unproductive office spaces; other times, it means isolation from quality support, equipment, financing, and growth opportunities. The relationship between independent workers and their capacities to make decisions about work is less obvious than the term “independence” implies. It is not complete freedom and absolute autonomy so much as it represents distinction from dominant practices while maintaining some interdependencies. It is the result of a complex relationship between specific properties of a person’s work, their relationships to their broader work assemblage, the information and technology at their disposal, and the ideologies of workers and employers. There is no one definitive description of an independent worker, so to discuss how independence and decision making relate to one another requires careful considerations of the socio-political-economic conditions of the work in context.

Liberated but isolated

While the term “independent” implies a degree of autonomy over work decisions, how that authority and control actually play out depends on the decision in question.
Fundamentally, independent workers are at once liberated from outside material and expressive components of the “typical” non-independent work assemblage and isolated from them. Where the liberation anticipated in independent labor is most visible is in those decisions that the worker can make in isolation, without the support or interference of other workers or resources. One example of this is how workers branch out from a job into new kinds of work, such as a programmer getting involved in producing art assets or a project manager taking on product development. In the mainstream games industry, Dyer-Witheford and de Peuter (2009) discuss how mainstream studios foster an ideology of intensive focus on one’s specific role at the company. Beyond relentlessly difficult scheduling that prevents workers from having the time needed to engage in other work, they point out the use of “‘famously brutal’ performance reviews” and the forced adherence (through reviews) to the company’s “A.C.T.I.O.N Values” which stress communication but primarily performance according to “expectation” (p. 57-78). The worker’s reason for working at a specific set role is accordingly dictated, or at least strongly influenced, by producers or other superiors.

By contrast, the experiences of some independent game makers are far more fluid because, unlike making games at AAA quality or within such large and rigid assemblages, much if not all of the work required to design, produce, and distribute a game can be done independently. If someone wants to design a game, for instance, they require no technical background or certification. For some workers, design comes as inspiration seemingly naturally; X05, for example, describes starting a project “with some kind of vision of what it is and then trying to not let go of that initial thing that was kind of inspiring.” X12 describes his design process in these “inspirational” terms as
well: “I just have to sit on the subway for an hour and just frown a lot, think pretty deeply. I have a whole bunch all over the place. I have all these long lists of brainstorms or discussions where I just put all the pieces together and think.” Getting better does not require formal education; in terms of writing for his games, X07 learns by doing: “Writing [I learned] basically through experience. I never took any sort of writing classes.” According to X12, experience allows for innovation: “The biggest teacher is experience. I feel like if everything I could learn comes from a guide, that means I’m not doing something new and that’s a problem.” If people want to learn from others, there is a combination of free and paid opportunities to learn available through books, graduate degrees at several local colleges and universities, one-off or week-long courses held by local professional associations, social networking, and articles posted on sites like Gamasutra. Some aspects of independent development may be more difficult for some workers than for others (many in the New York City community do not, for example, produce their own visual or audio assets, preferring to collaborate with someone who specializes in those assets), but being independent means the ability to choose both to perform a job and to defer a task to someone else, perhaps a partner or a paid employee or contractor. This fluidity between tasks results from the worker’s independence from controls otherwise applied by a traditional work arrangement but also because of the relative ease and simplicity in learning and performing any given task to some degree of competency.

A worker’s capacity to make work-related decisions accordingly decreases faced with dependencies: if a worker alone is unable to perform a task, or the task is so difficult to do alone that it motivates a worker to get help with it, this places limits on the worker’s
ability to make choices freely. How the loss of authority and control plays out, and how much of the authority is lost as a result of that interference, is specific to the particular labor arrangement. Consider a painter who works alone from home and sells paintings from her garage. As independent as she appears, when she runs out of paints, she has two choices: either fabricate paints from scratch or go to the store and buy some that are made by someone else. The painter maintains full control over the labor by performing the paint-making herself, but this comes at tremendous cost in time and access to the necessary oils and pigments (which, again, she may purchase or mine/harvest herself, and so on). If she chooses to purchase paint at the store, she inevitably sacrifices a degree of control, though perhaps not a significant amount of it: she can only buy paint when the store is open, if the store has the paint in stock, and if she has enough money to afford it. Therefore, once she comes to collaborate, in a sense, on procuring the paint from the store, she must negotiate when she can gain access to that paint based on when the store is open and whether or not she can afford it. If she wants to make the paint herself, she can do it whenever she pleases. More typical work arrangements produce similar consequences. A salesman can try to work outside of business hours, but if the salesman requires marketing material from the company first, his ability to schedule his work is limited by when that material becomes available. In a real example, X14 discusses how he can normally work on his game any time he pleases, but because he has someone else producing the art assets, he describes sometimes having to wait for that work to be delivered before he can work again.

Another example from a more conventional working environment explores how interdependencies between workers and other parts of larger networks of firms can place
inherent limitations on a worker’s decision making capacity. In Mayer’s (2009) observation of a reality show casting call, she shows how the context of the reality casting associate’s work demonstrates this limiting quality of inherently collaborative labor. In that case, a show’s producers discover their show’s run has been expanded during the season from nine to thirteen episodes and they need more people for those new episodes on short notice. In Mayer’s example, note how the mechanism whereby the show’s season expands is obscured from the associate actually responsible for the labor of selecting the participants; nevertheless, that hidden work is the basis for the production company (also distantly connected) bringing someone in to have a casting call. Only at this phase do the staff responsible for making the casting call, running it, and picking people (or maybe passing the tapes to the production company for approval) actually do any work. How that part gets managed, Mayer shows, is the labor of the casting workers. That labor, particularly who to solicit, for what show, and when to do it all, depends on the agents above these workers; the casting associates have no authority or capacity in the slightest to either change the length of the season or the nature of the show they are casting for. At the same time, it is only through the facilitation of the production company that the casting agents have labor to perform in the first place. Unless a casting agent decides to invent his or her own show from scratch and self-finance it, the casting agent inherently depends on someone else providing the basic resources necessary for work to take place.

**Independence and knowledge gaps**

Another significant component that affects the relationship between independence and worker decision making capacity is availability of information regarding how to
perform the work they want to do. Where this information is highly available and accessible, independent workers are increasingly empowered to work and progress in their careers, whereas if that information is concealed or otherwise inaccessible, those workers will depend on those with access to make that progression. In a sense, the availability of knowledge to individuals offers the decision making capacity to enter independent labor and access subsequent advancement, other costs to that work notwithstanding.

Naturally, a worker cannot expect to become an independent without having the information necessary to perform the job. In some jobs, this is a minimal concern because the work is easy to do, even if it is difficult to master. Becker (1982/2008) points to “naïve artists” who create work in a medium with “no connection with any art world at all” (p. 258), lacking any training and knowing little, if anything, about the medium: Grandma Moses is the typical example. What makes it possible for such a person to work in the medium at all—painting, in Grandma Moses’ case—is relatively simple, he explains: “Naïve painters… know what paintings look like, and how they are done… anyone with minimal drawing skills can easily begin painting, drawing imagery from conventional stereotypes, traditional subjects, or private obsessions” (p. 259). He associates the look of this naïve work with that of amateur painters who will later continue training. What contributes to the naïve artist’s lack of professional or artistic development (perhaps otherwise stated, the conventionalization of their unconventional work) is precisely what Becker indicates allows the amateur artist to progress: access to “professionally standardized materials” (p. 265). While the naïve artist operates in a space with absolutely no access at all to a network of other producers to learn from, those
who leave the naïve stage of their work do so with access to resources: the amateur working in a tradition will have access to “classes in painting, belong to clubs of similar amateurs, and participate in a world of Sunday painters” (p. 260).

This idea that an independent has the capacity to work (not to say market that work or the product thereof, but perhaps in some cases) provided that worker has at least a basic access to the fundamentals of the task applies to any number of other jobs in the arts and elsewhere in the creative industries. Like Becker’s example, some work requires only basic and relatively universal skills: journalism, for instance, requires (materially speaking) only literacy, a medium on which to write, and some basic sense of the form, and conventional “citizen journalism” may not even require literacy as it can take the form of images and video as well as comments and text-based user-generated content. Like Becker’s naïve artist, Bosshart and Schoenhagen (2013) describe this work as “practiced independently and beyond the realm of professional journalism” (p. 140). One might also point to any number of kinds of work that, at least at some level, can be done without significant training or preapproval\(^2\). This could include child care, teaching (as in homeschooling) and acting. Of course, the marketability of these workers, both as part of an organization or as a professional independent, is heavily affected by bona fides that entitle a worker to certain levels of compensation and desirability that might include certifications from professional associations, a portfolio demonstrating experience and expertise, or union membership. This distinction between inexperienced and experienced

---

\(^2\) This idea of preapproval (perhaps hiring, elsewhere certification) is relevant in distinguishing low skilled and deskilled positions within mainstream employment (for instance, so-called ‘McJobs’, as in Lindsay, 2005) as opposed to work that can be performed independently.
workers may be extensive, as in the difference between an unpaid teacher at a church and a certified public school teacher or between union and non-union actors.

As the necessary knowledge to begin performing the work or advance professionally becomes more obtuse and inaccessible, the work becomes harder to access and the capacity to decide to become independent becomes more difficult to obtain. This is a common trope in accounts of the professional games industry. Kerr (2006) suggests that while game developers were once primarily self-taught, an increasing number (as of the mid-2000’s) have formal degrees in computer science, animation, or art (p. 89). That said, Kerr emphasizes amateur experience, specifically in assembling a portfolio of mods (modifications of existing games made by others), as a necessary material precondition to obtaining professional experience and on-the-job learning. Mods can produce games that rivals professional work and have team structures modeled after professional studios (see Postigo, 2010), but in many cases it is amateur activity structured by tools provided by developers that apply exclusively to a single game, though more recently it may apply to others games on a broader platform (Postigo, 2010). Dyer-Witheford and de Peuter’s (2009) meta-analysis of employment information points to a similar trend towards formal education as a precondition to labor in games, rather than an emphasis on mods and amateur work. They point out that 2005 numbers estimate 64% of games workers have university or college degrees, a number they anticipate will soon rise to 75% (p. 53). Indeed, the 2015 IGDA survey (Weststar and Legault, 2015) which ten years prior informed Dyer-Witheford and de Peuter’s account suggests this has come to pass: 93% of survey respondents report having at least some post-secondary education and around
three-quarters of them explicitly have a certificate or degree\(^3\). The content of degrees, unlike the majority of independent developers interviewed for this study, more frequently directly relate to game development—26% according to the survey, with an additional 38% report obtaining degrees “somewhat relevant to game design and development.” None of these accounts directly suggest that degrees are required, nor do they directly suggest the learning and experience obtained through their degrees helped them perform their jobs when they got to work. It does demonstrate that access to mainstream design and development work is affected considerably by the prospective worker’s availability to higher education, even if that education does not contribute to performing the work and acts only as marker of worker qualification.

Over time, these conditions may change, making it increasingly possible for workers to circumvent conventional pathways and find the capacity to enter the industry as professional independents. Such is the case in the current games industry. Members of the New York City independent community cite the engine Unity as a major component to their work because it provides a free and accessible tool for them to learn basics of game making, not using noncommercial and prosumer programs but the same (or similar) tools used by professionals. Opportunities to learn how to use the program are ubiquitous, opening a new space for decision making in development work: X08 talks about learning Unity (how to use the engine and not necessarily how to code anything for it) by taking a class offered by a local community association. Often, people cite online sources such as

\(^3\) This is an extrapolation from the survey data. The 93% figure cited first includes those with “some college” and “some university” experience listed as their highest degree of formal education. These categories account for 19% of all responses. Combined with the 7% listed as “other” arrives at 26% without any completed degree or certification. The category “some post-graduate” (7%) is not included on the presumption that those attending post-secondary institutions will likely have an undergraduate degree already.
forums, videos, and Unity’s documentation—all freely available online. X06 recalls feeling let down upon asking some people at GDC how they learn new things that they simply said “Google.” By contrast, in the mid-2000’s, O’Donnell (2014) explains, “[Online game information sites’] engineering-heavy focus and marked lack of information about how design, art, engineering, and management work together to produce games is not widely or explicitly discussed” (p. 54). He describes engineers entering a studio as fundamentally lacking in the information “about the way in which game development engineers have to work” (p. 57). It would be interesting to discover, given these recent developments, if the subsequent changes to information availability contributing to the explosion of interest in the independent game making space is also affecting the knowledge base of entry level workers in mainstream studios and their capacities to make work related decisions in those traditional spaces.

**Interdependence in theory and practice**

It is worth noting that nearly all independent work depends on networked interdependence with both human and non-human agents. Becker (1982/2008) describes how the artist “works in the center of a network of cooperating people, all of whose work is essential to the final outcome. Wherever he depends on others, a cooperative link exists” (p. 25). This network or “art world” not only consists of the “core” artist in the Romantic sense of the lone genius but a slew of inspirations and support staff, as well as the audience for the product whose tastes and anticipations the artist may attempt to deliberately appeal to or oppose. While Becker focuses on artists, he sees his core theory, that “organizations consist of… regularized ways of interacting” (p. xv) as broadly applicable, a point visible in discussing any number of other industries. Game
development studios and in fact any company with a distributed product, large and small alike, depend on relationships to distributors, they purchase and use software made by other companies and agree to terms of use they may not negotiate personally.

Accordingly, all labor, to at least some extent, is negotiated labor as no man (nor firm) is an island. That negotiation may be trivial, as in the case of the painter that needs to wait a few hours to buy paint from the store which is not yet open, or it may be more significant, as in the case of a worker at a company whose boss provides a set of tasks to be done and a schedule for completing them. In discussing “independent” labor, the term does not signify a Walden-like isolation from other parts of a broader influential assemblage; rather, it indicates less interdependence than some alternative, larger, and more established network. Independence is not a binary condition—independent or not-independent—but a sliding scale and increasing or decreasing interdependencies.

The interdependence between workers and other external components of the work assemblage, from bosses and tools to laws and office policies, do not simply limit worker decision making capacity by merely existing; their ability to limit (as well as supplement) worker decision making depends on concrete practice. Becker (1982/2008) points to the practice of patronage (p. 99) in which a wealthy benefactor or perhaps the State finances the production of either specific works from an artist or whatever the artist desires. This relationship is typically pecuniary; the “authority” of the patron over the artist emerges from the idea that the patron’s continued support of the artist depends on the artist pleasing the patron with the artist’s subsequent work. If the artist is taking part in such an arrangement, Becker notes that the patron “can… exert detailed control over the work whose production they support, if they so desire” (p. 99). It is because of the fact that this
control in practice comes at the whim of a patron who, for one reason or another “so desires” it that one cannot point to any random patron-artist relationship and deduce the extent of the patron’s influence. Nippert-Eng (1996) describes a similar situation in which workers at the same workplace but with very different supervisors contribute to radically different experiences of control and authority over a subordinate worker’s workplace decisions. She points to the example of a worker at a university whose new supervisor pressures those under his authority to appear and behave more “professionally,” “repeatedly admonishing in writing and in person [the worker’s colleagues]… for creating an ‘unprofessional’ work environment,” (p. 154) in spite of there being others at the university “who brought dogs and children to work, lectured in jeans and scruffy beards, seemingly came and went when they felt like it, and decorated their offices however they wished” (ibid.). In a sense, the work assemblage experienced by this constrained worker and those of her colleagues under looser leadership are tangibly different: not only is there the increased expressive pressure exerted by the supervisor’s personality but the implied authority of the policies as well which do not apply outside of that supervisor’s control. At the same time, the same university-wide rules govern all of the departments and dictate how every supervisor is hired. To look at one supervisor and characterize the entire university labor assemblage as so strict and bureaucratic ignores the more relevant point—that the university’s policies governing the authority of supervisors allows for the possibility of a strict or relaxed supervisor to work there.
Independence and undesirable work

The decision making capacity to do all of the work necessary to work independently is not the same as the desire (personally or shared ideologically within a community of practice) to do all of that work. Artists may rely upon a semi-autonomous factory (in Andy Warhol’s case, an artist collective literally called “the Factory”) in which work in the artist’s name may be made that the “artist” merely supervises or takes credit for. Additionally, as a film director gains access to higher budgets and more collaborators, the director may increasingly divest parts of the work that previously he or she was doing alone. The fact that Clerks director Kevin Smith wrote, directed, acted in, edited, and produced that film in 1994 and did all but produce its sequel in 2006 indicates that he likely maintains the desire and ability to perform these jobs in spite of access to professionals able to do them for him later in his career. Meanwhile, director James Cameron who had an early role as a production designer for the Roger Corman film Galaxy of Terror has never acted as a production designer ever since then, while he has continued to act as a director, producer, and editor in his later work. The fact that Cameron is able to be a production designer in the material sense of the assemblage of film production (that he can do the work in a material and practical sense) is meaningless if he does not see performing that task as desirable or necessary. Thus, there is a personal element to what is empowering and thus what contributes to decision making capacity; different people may simply prefer different work and may rather not do certain jobs in favor of doing others. Access to work opportunities and decisions is not itself beneficial.

There must be some consideration, on this subject, for the varying scopes of different independent labor and how different kinds of work involve differing exposures
to potentially undesirable work that would otherwise be done by other parts of the traditional labor assemblage such as coworkers or other verticals of an organization. In Edstom and Ladendorf’s (2012) review of freelance journalists in Sweden, they note some aspects of freelance labor that go beyond the labor of a full-time journalist, such as learning to write for different audiences and genres, building relationships with clients and seeking new work frequently (p. 718). Meanwhile, the freelancer is not responsible for producing the layout of the magazine, acquiring photographs, financing and so on which are necessarily components of the overall production of a magazine. This differs from the experiences of other workers with a more direct, “artisanal” hand in production, taking on all or nearly all of the labor in the broader labor product themselves. Such is the case in the New York City independent game making community to varying degrees. Some members might have roles that are relatively constrained to a single specific task while being able to interject their opinions in the work of collaborators, such as described by X19 or X13. Others, like X03 or X11, find themselves deeply involved in nearly all aspects of game production, from design and development to distribution and marketing. This can vary, as some workers alternate between doing work for themselves and work for clients, as X05 explains: “I have a pretty significant role [in decisions for distribution], I mean for our own games. Again for clients, it’s really not up to us. Whatever they decide to do, it’s their business, but for the really independent stuff, we basically get to decide what platform it’s gonna be on, how we’re gonna sell it, whatever.” X05 indicates that making decisions about game distribution is only relevant when he works for himself; even as an independent contractor for another firm, this
decision and others are the responsibility of the client. The more isolated the worker is from these kinds of authorities, the greater the scope of work he or she is responsible for.

This exposure goes beyond clients, as in X05’s example, and it also includes exposure to sources of resources generally, which depend on the specific context of that work in space and time. The amount of work needed to procure the once ubiquitous Kodachrome film is different since it has been discontinued in 2009 compared to its heyday in the 1950’s and 1960’s. While it may be easier to procure via hoarded stocks over the internet, the labor of processing the film has become somewhat more complicated, as one post on a photography forum explains. When asked if anyone could recommend a place to process an old exposed roll of Kodachrome, someone responds, “Not on this planet. You might try black and white processing… otherwise you’re out of luck” (Kuliu zhkin, 2012). The same can be said of other changes to the availability of technology, as X05 explains in describing the choice to use a comprehensive game engine like Unity to produce 3D games, as opposed to making his own from scratch as he might with a 2D game, because “once you get into 3D, the math gets more complicated, everything gets more complicated. So using something like Unity for 3D makes sense.” What gives X05 the decision making capacity to avoid the undesirable work of crafting an engine whole-cloth is the availability of existing technology that accomplishes that work already. Similarly, one must consider the relationship between the labor and sources of funding (further elaborated in chapter 3). An example of this might be the effect of Canadian government policy spawning “tax shelter” films through the Canadian Film Development Corporation’s dubious funding of poorly received low budget genre films especially from 1975 to 1980 (see Wright, 2012). Generally speaking, the range of work
an independent anticipates is specific to the time, place, and assemblage in which that worker operates. Plainly stated, there is no unified concept of what constitutes the scope of independent labor.

**Independents in the creative industries**

As difficult as it is to define what independent labor means for decision making capacity within a given industry, quantifying the prominence of independent labor in the US economy is only more so. In 2001, Pink boldly pronounced the number of what he referred to as “free agents” amounted to 33 million workers or “one-fourth of the American Workforce” (p. 44). Florida (2012) disputes the figure, placing the number of “freelance and self-employed” and “contract workers” in the IT field at just 3.4 percent (though, it is worth noting that these are unlike comparisons, with Pink referring to the broader economy and Florida discussing only creative industries, using numbers from only one of those industries as a substitute). Research from the center-right American Action Forum (Rinehart and Gitis, 2015) places the number of workers in the so-called “gig economy” (characterized by non-standard full-time work arrangements) at between 20.5 million and 29.7 million in 2014, amounting to somewhere between 14.0% and 20.3% of employed people. To make matters more complicated, Horowitz (2011) suggests, “We don’t actually know the true composition of the new workforce. After 2005, the government stopped counting independent workers in a meaningful and accurate way” (n.p.). Nevertheless, she estimates the size of the gig economy (consisting of “freelancers, part-timers, consultants, contractors, and the self-employed” at over 42 million in 2011 (n.p.). How those atypical workers are divided through the American economy is unclear, but Hipple (2010) cites government statistics that determine self-
employment is categorically more common in “agriculture, construction and service industries” (p. 17), without saying anything about other categories of independent labor like contract or freelance labor. Regardless of industry or sector, one consistency in the literature is that the independent sector is growing as a percentage of the economy. This comes in conjunction with the emergence of high-profile new forms of labor, such as the online sharing economy embodied by companies like Uber and AirB&B.

The crucial question is what is driving this shift towards more independent labor? Some suggest that the increase in independent workers in specifically high-skilled positions stems from a cultural change, that workers themselves seek independent work rather than being forced into it. Kunda et al. (2002) refer to this as the free-agent perspective, that “contingent status is a choice rather than a necessity” (p. 238). The view is strongly associated with Pink (2001) who describes an ideal “free agent” as “the footloose, independent worker—the tech-savvy, self-reliant, path-charting micropreneur” (p. 14). Subsequently, Florida (2012) attributes the rise in independence (more specifically, the rise in changing workplaces which include independent labor) to the rise in the value companies place on creativity as a work skill. He outright objects to the “silly notion that big companies are dying off” or “that our economy is being reorganized around small enterprises and independent ‘free agents’,” explicitly referencing Pink’s famous book by that name in the endnotes (p. 7). Rather, he argues, “Capitalism has expanded its reach to capture the talents of heretofore excluded groups of eccentrics and nonconformists” (ibid.). Florida’s position is that these now independent workers, amongst other non-contingent creative employees, are liberated in the new work environment where before they would have been stuffed into an ill-fitting conventional
white-collar existence (a condition Pink, 2001, calls upon frequently). This is not suggesting that the system is merely discovering people it had unwisely rejected. Florida compares the “shared commitment to the creative spirit in all its many manifestations” and its effect on the “new creative ethos that powers our age” (p. 6) to Weber’s (1920/2002) position on the way that the Protestant ethic drove early capitalism.

While Kunda et al. associate this ideological perspective, at least circa 2002, with “futurists, human resource consultants, or staffing industry experts who write books aimed at the general public or publish articles in popular magazines” (p. 237), it appears elsewhere as well in various permutations. Hesmondhalgh (1999) points to indie music, punk and post-punk especially, as emerging from “significant challenges to commercial organization of cultural production favoured by the major record companies” (p. 35). This is a common refrain in reference to participants in many independent cultural production movements (see Lipkin, 2013; Oakes, 2009; Anthropy, 2012; Berra, 2008). This is coupled at times with acknowledgement of the costs of independence; Banks (2010) notes that artists are poorly compensated but benefit from a greater degree of autonomy over their work (p. 306), and Lee (2012) points out that workers in cultural sectors “put up with (and often embrace) extraordinarily high levels of risk and self-exploitation, for the sense of self-actualization that comes from working in a ‘creative industry’” (p. 481). Exemplified in Lee’s comments, these articles frequently note the tension experienced by workers between ideological motivations to becoming independent or perceived benefits of independent labor and the costs of that labor in contrast to traditional full-time employment (see Ross, 2013, and Gill and Pratt, 2008).

---

4 Lee employs “creative” as a stand-in for “cultural,” in contrast to its use in Florida (2012) and elsewhere as a broader marker of labor and its use in this dissertation.
Some, like Ross (2008) and Vallas and Prener (2012) suggest that worker acceptance of precarious conditions results from an emergent rhetoric that valorizes an intrinsic pleasure in work without regards to exploitative hours and a loss of work/life balance. Such perspectives are at odds explicitly with those of Florida (2012) and Pink (2001) but also in some respect to Hesmondhalgh (1999) and others who cite internal logics like resistance to the mainstream as motives for workers interested in becoming independent, at least in cultural production labor.

This tension is not irreconcilable. Gill and Pratt (2008) explain:

Long hours and the takeover of life by labour may be dictated by punishing schedules and oppressive deadlines, and may be experienced as intensely exploitative, but they may also be the outcome of passionate engagement, creativity and self-expression, and opportunities for socializing in fields in which ‘networking’ is less about ‘schmoozing’ the powerful than ‘chilling’ with friends, co-workers and people who share similar interests and enthusiasms. (p. 18)

Accordingly, the ideological dimension of worker motivations towards precarious work opportunities can be in tension between affects or other expressive components of the work assemblage that attract the worker to the labor and those that repel it. The increasing prominence of independent work is not automatically indicative of powerful interests unilaterally taking advantage over workers and limiting their decision making capacities to only decisions that benefit those interests at the worker’s expense; independent labor is not a contemporary invention, after all (see Oakes, 2009, on independents in the 1950’s). Such a perspective would occlude legitimate personal and ideological preferences such as those cited by Pink (2001) and Florida (2012) as well as those like Oakes (2009), Hesmondhalgh (1999), Hesmondhalgh and Baker (2011) and Azerrad (2001).
Indeed, dismissing the accounts of workers enjoying or being fulfilled by work can contribute to a philosophical trap in which there can be no true pleasure in work at all. Hesmondhalgh and Baker (2011), in their discussion of the differences between “good” and “bad” work, express criticism of post-structuralist critiques of subjective narratives wherein workers express pleasure and satisfaction in their work. By describing such workers “entranced” or “seduced” by “the illusion of freedom,” (p. 47), they claim that this perspective depicts a working environment where “The quality of any apparently good job, it seems, is in reality based on a seductive illusion of freedom” (ibid). Yet, if it is to be possible to conceive of “good” work, as Hesmondhalgh and Baker do, then this critique of narrative cannot fully hold. If good work means, in their estimate, good wages, good working hours, safety, autonomy, involvement, sociality, self-esteem, self-realization, work-life balance, security, and being part of a job that produces good products or contributes to the common good, dismissing any worker narrative espousing these qualities serves to deny the possibility of a worker ever meaningfully experiencing them. This is not to suggest workers might never be affected by ideologies that work against their own interests. Rather, Hesmondhalgh and Baker’s objection is that it is deeply problematic to fully reject worker narratives as automatically naïve because it offers no philosophical possibility for positive work experiences and dismisses any sense of worker autonomy and agency.

**Independents and the restructured corporation**

Meanwhile, one might also point to the increasing prominence of independent labor in creative industries as resulting from a political-economic shift at the corporate level from employing stable bureaucratic workers to precarious workers as a cost-saving
measure. Handy (1990), for instance, suggests that an optimal firm is a “shamrock organization… based around a core of essential executives and workers supported by outside contractors and part-time help” which he suggests is already common practice for builders, newspapers and seasonal farming but will be the way of all organizations because “their way is cheaper” (p. 32). Kunda et al. (2002) note how extensive this perceptive is as a general business tactic since the late 1980’s (p. 235). In such a case, engaging in independent labor does not so much demonstrate a worker’s decision making capacity to choose independence but rather the opposite—that they have lost the capacity to avoid independence.

Specific studies of industries do demonstrate this recent shift in practice, calling into question how much worker ideology rather than practicality drives movement from traditional to independent labor. One such industry is journalism which has seen rapid decline in full-time positions globally since the 2000’s (Deuze, 2007; Edstrom and Ladendorf, 2012; Carson, 2014; de Mateo et al, 2010). Ideological concerns aside (that is to say, sidestepping an argument such as Pink’s, 2001, that free agency is preferable for employers for more than purely economic reasons), the shift on an organizational level towards an increased reliance on more precarious contract workers is unquestionably tied to precipitous declines in revenue, at least in print journalism. De Mateo et al. (2010) describe double-digit declines year by year since 2008 in advertising revenue for Spanish media companies, and Salamon (2015) describes Canadian print media experiencing “declining revenues and circulation as the longstanding advertiser-supported and subscription-based business model has waned dramatically” (p. 438). Shifting from full-time to freelance, contract, and unpaid intern labor, if not simply shrinking the scope of
journalism (see Sussman and Higgens-Dobney, 2016, p. 232) can serve as a cost saving measure necessitated by the misfortunes of the industry’s revenue model intertwined with emerging models of journalism over the internet. A similar claim can be made regarding the shift in higher education from predominantly tenure-track faculty to part-time non-tenure-track positions for budgetary reasons (see Eagan et al., 2015; Schuster and Finkelstein, 2006; Gappa et al., 2007). This is not to say that an industry or a company’s decision to shift preference towards hiring independent labor is necessarily motivated by economic hardship or some other necessity; it is merely indicative that this is a possibility and a worker’s shift towards independence may be less a deliberate choice and more of a necessity driven by macroeconomic realities minimizing traditional work options.

Technology and the freedom of independence

Another matter to consider is the role of technology and its facilitation of ubiquitous work, providing workers decision making capacity through new opportunities and spaces in the economy to become independent. In a way, it is a partial unraveling of the effects of the industrial revolution, where the costs of producing goods at competitive prices and volumes could no longer be maintained without access to expensive machinery and division of labor (see Hunt and Lautzenheiser, 2011). At the same time, the use of expensive machines required laborers, drawn from independent work to factories by, according to Marx (1867/1990), “the direct sway of capital” (p. 517). Currently, new technology may be undermining the necessity of large organizations that have traditionally had exclusive access to the means of production by virtue of extensive resources. Pink (2001) suggests that an ingredient in the emergence of free agency is the shift away from “tools… too costly for an individual to purchase, too complicated for one
person to operate, and too cumbersome to store at home” (p. 49-50) to production that is once again “preindustrial” (p. 50) thanks to, ironically, highly productive manufactured consumer goods\(^5\) like personal computers, telephones, and internet infrastructure. The benefits of these networked technologies, especially for creative labor which already is inherently less dependent on the kinds of industrial machinery that limit decision making capacity and discourage independence, is readily apparent. If a worker requires only a telephone and a computer to perform the labor and the cost of accessing those tools is affordable, then the worker may, materially speaking, have the capacity to work from home and not exclusively from an office (see Nippert-Eng, 1996, p. 157-158). Now liberated from a singular office, the worker has the capacity to sell his or her labor to other companies or produce a product alone.

The recent explosion of independent game production\(^6\) further validates this connection between technology, markets, and the availability of the decision to become independent, but it also indicates that independent sectors can be cyclical as times and technology change around them. Video games first emerge as an expensive product to produce—programming an entire game could be done by a single individual, but the costs of manufacturing, marketing and distributing were prohibitive to individuals without access to financing (see Montfort and Bogost, 2009). The emergence of affordable personal computers in the late 1970’s opens a part of the process considerably: now unbound from highly expensive hardware only found in universities and offices,

\(^5\) Pink’s understanding of “preindustrial,” it goes without saying, ignores the factory labor that went into producing the inexpensive tools that facilitate work from home for the more affluent Western middle class.

\(^6\) See Weber (2015) which notes 4500 games available on Steam at the time of the article’s publication, but 1850 were released in 2014 and 2500 are predicted for 2015. See also Savchenko (2015) for similar data.
people at home could make games and play them. Swalwell (2012) discusses early microcomputing, home-built machines that not only encouraged users to code but essentially required them to do so as they had no other way of interfacing with the machine. With the machines being home built and the software code highly accessible, it would be quite easy to learn how to code and create games. This was only helped by the emergence of niche magazines that not only gave advice but also provided entire programs typed out for users to copy, in addition to space for advertising products being made by upstart software companies. Swalwell points out that independent coders, both making games and other useful consumer software, sometimes transitioned from hobbyists to professionals by selling their products (p. 4). However, as personal computers became more complex and more of their contents concealed from consumers, Swalwell suggests people have grown less willing to explore the technology as well as less able without extensive study (p. 12).

Where some personal computers confined access to software, the market for games on the Apple II thrived, as explored in a history of the platform by Barton and Loguidice (2008). Beyond making the software public, Barton and Loguidice point out that the Apple II took advantage of the 5.25” disk drive as a preferable data storage alternative to previously standard cassette drive. With access to the knowledge to produce games (now helped by the proliferation of computer magazines and books), the technology to produce for the platform (because the system could serve as the platform for development as well as consumption), and relatively affordable distribution by floppy disk as opposed to expensive ROM masks as was the case for the Atari VCS, small companies emerged to fill demand for products. Like zines, early commercial Apple II
games such as *Mystery House* (1980) or *Ultima* (1981) could be packaged at home with photocopied instruction sheets and heat-sealed shut to be mailed out to customers with the help of small publishers.

The sea-change that precipitates the contemporary emergence of a new indie movement in games begins with growing complexity in games that encourage larger and more experienced teams of workers to form—that is, the reduction in the decision making capacity for new developers that previously facilitated the earliest emerging game producers. In Shay Addams’ (1992) account of the history of the *Ultima* franchise, he notes that when developer Richard Garriott made the first few games in the series, it was a primarily solitary job producing the games on the Apple II in BASIC and machine code. Unlike a contemporary game that may require a dedicated technical artist, graphics in these early games had to be programmed into the game by drawing them out as lines on graph paper, converting it to HEX, entering each tile as data, and reversing it so it would face the correct direction (p. 13). Laborious as it was, it was a two-man job for the first *Ultima* title. When 1983 rolled around and the market was oversaturated with “junk,” Garriott was fortunate that his games were original, rather than rip-offs and knock-offs of arcade titles and sold well enough that he was able to find a publisher where so many other developers withered and dropped out of the market (p. 26). As the series and Garriott’s company, Origin, progresses into the mid-1980’s, Shay explains, “By now it had become clear to the Garriotts that for the company to prosper, they would have to diversify the product line” (p. 57), and in so doing, Garriott hires additional support.
Other accounts of the games industry, especially around the mid-2000’s, directly state that the complexity of game development had reached a point where it was not commercially viable for a single person or very small team to produce a title on a platform without a publisher and financing. Kerr (2006) notes, “Given the increased concentration, scale and global reach of the publishing sector, independent development companies have had to increase in scale, professionalise and specialize in order to survive” (p. 78). Kerr predicts the condition worsening still: “[T]he anticipated rise in production costs may encourage more outsourcing and indeed off-shoring” (p. 79). To that point, O’Donnell (2014) confirms Kerr’s prediction, monitoring a trend of corporate acquisition and consolidation within the games industry as well as the shift towards off-shore labor in India and elsewhere (p. 13). Initial access to development that facilitated Garriott’s rise to stardom is increasingly out of touch at this point; if someone is interested in console game production, O’Donnell and Kerr note the high cost of first obtaining a dev kit necessary to begin production. Producing and selling for these platforms is barred behind a legal apparatus of copyright and anti-piracy measures. Those that do produce homebrew titles do so at risk of legal action and have no way of selling those titles openly (O’Donnell, 2014, p. 235). The situation is little better for PC through the 1990’s; X05 describes that until Paypal emerged in the late 90’s and early 2000’s, PC games had to be sold through a publisher because, “At that time, people felt really uncomfortable about paying for stuff on the internet.” He describes working with shareware publishers who would put demos of many games at once onto CD’s that would end up in gaming and computer magazines, and if someone wanted a full version, they would contact the publisher for an unlock key. So, either a game was financed well
enough to be published and distributed through retail, or the game was accepted into a group of other shareware games to questionable financial outcome.

The renaissance of independent games accompanies significant changes to the technology of game development and distribution that undermine the relatively closed system that O’Donnell and Kerr describe. Major technical innovations include first the viability of Flash in the late 1990’s and into the 2000’s. While it has since largely fallen out of favor because of performance issues, it long enjoyed being a standard of what would become the independent movement through games like *The Binding of Isaac* (2011), *Samorost* (2003) and *Canabalt* (2009). Flash was good at its primary purpose—internet-based content in 2D—but it is poor at creating games in 3D, multiplayer experiences, and high-speed action. It also suffers from compatibility issues; consoles do not run games developed in Flash. What ultimately has driven Flash’s popularity down has been the emergence of new options: high-quality, highly accessible, professional game engines, especially Unity. Launched in 2005, Unity went from being an Apple OS development engine to including Windows in 2007. In 2009, Unity began offering a free license for download along with its standard professional edition. The free license has some limitations in support and analytics and cannot be used by any company earning more than $100,000, but its current iteration is royalty-free for games developed on the free license. Other professional-grade engines would soon follow Unity’s lead. Unreal Engine began offering a free license in early 2015 for a 5% royalty after a certain amount of revenue, and CryEngine V began offering a “pay as you want” license in 2016. Not all independents take advantage of this technology: some, like X05, still decide to make their own engines from scratch when it makes sense. That being said, of the 21 people
interviewed in the New York City independent community, 16 use or are learning to use Unity.

This access to an easy-to-use and effective development platform means nothing if there is nowhere to distribute the product. Early distribution platforms like online portal Newgrounds have long provided opportunities to showcase Flash videos and games, but it was not until 2007 that the site introduced an API that would enable developers to earn money from ads that play when people play their games (it is telling that when *Samorost* was released in 2003, it was free and hosted on the developer’s website). One essential development is the proliferation of internet-based distribution for games, as opposed to the way massive multiplayer games played over the internet previously operated (with the game itself purchased as a physical disk but played over online servers). Johns (2006) describes games in the early to mid-2000’s as being primed to take advantage of the internet as a retail opportunity, suggesting the possibility of peer-to-peer sharing as an alternative to traditional retail (p. 26). What emerges as the de facto standard in the PC market is slightly more conventional than this: Steam, a digital marketplace by privately held, independent (albeit quite large) game publisher Valve, which enables approved developers to promote, sell, and update games through the platform at a fraction of the expense of traditional retail. While it did not publish third-party titles when it first emerged in 2003, Steam began partnering with companies to distribute games on PC in 2005. By 2012, Steam opened up its greenlighting process to the player population (through a system creatively called Steam Greenlight); rather than companies sending their games directly to Steam and either being accepted or denied by some internal gatekeeping (which X08 recalls being a significant hurdle for independents such as
himself at the time), the Steam Greenlight system ostensibly makes the process more open by allowing players to vote on projects they want to see published on Steam. While the exact mechanics of this system remain private, Steam Greenlight appears to have contributed to a substantial rise in the number of games published on the platform per month (Savchenko, 2015). What emerges from this analysis of the independent game economy is a technoscape, to cite Appadurai (1990), of highly accessible systems that anyone can access with a nominal amount of resources and internet access that can produce commercially competitive games and distribute them with no financing required.

**Conclusion**

It is easy to find reasons to glorify independent labor. It evokes an image of self-control and autonomy, freedom and resistance. The reality of independent labor is much more diverse and complex, with independent workers having very different decision making capacity experiences by occupation and economic sector and changing sometimes drastically over time. Independence can be both sticking it to the man and paying your dues in the hopes of joining him. Being independent is not equivalent to being more able to make all of your own decisions. It means being able to make some decisions with less interference but being required to perform unwanted work as well. Managing that unwanted work involves other resources, especially money, time, and community assets, which subsequent chapters will continue to explore. The creative industries may indeed be increasingly characterized by independent labor of some degree.

---

7 As will be discussed in the next chapter, this high availability and accessibility may ultimately be signaling yet another trough for independent developers as competition raises the amount of quality perceived as needed to be commercially successful. This relates to whether or not being independent is commercially viable, not whether or not people will still participate in the marketplace, if only part-time.
or another, but it is important to recognize the complex set of conditions that contribute to 
independence and affect worker decision making capacity as independents; there are 
sometimes ideological factors, sometimes economic ones, sometimes technological 
components, and each industry (and job within an industry) has, at least to some extent, 
its own assemblage to consider. Before making any pronouncements on the benefits of 
free agency, contract labor, or independence by these or any other names, one must first 
consider how the independent labor in a given field may be situated amongst these 
factors. Changes that may improve the welfare or enhance the decision making capacities 
of those in some industries may harm those in others.
CHAPTER 3: The Meaning of Money

The second chapter explores broadly the status of being independent in the creative industries and how separation from structures can both enhance and deplete a worker’s capacity to make decisions about their work. Given that a major purpose of work is sustaining oneself and one’s family, one would imagine that financial capital should have a significant impact on worker decision making as well. Money and decision making capacity have a positive correlation: the more money a worker has, the more options the worker has access to. The degree to which money increases a worker’s capacity to make work-related decisions depends on the relationship between the job and that worker’s finances: employees gain from having financial resources because the employer generally adopts many of the work expenses, but independents who must pay for everything themselves gain considerable decision making capacity from increased financial resources depending on the costs associated with the work.

Workers have access to financial capital through a number of different potential sources besides wages, depending on the content of the industry assemblage, such as access to parents and friends but also industry organizations and financiers. Through discussion of how workers seek income, the great division in the creative industries emerges: cultural industry labor and non-cultural creative industry labor have typically different macroeconomic conditions due in large measure to the desirability of certain jobs (especially those in the arts) over others that a given worker might also be qualified to perform. As a result, cultural labor as a whole cannot finance every worker interested in earning a wage comparable to the non-cultural creative labor equivalent—not because employers are withholding money from them necessarily, but because the competition for
labor and product makes competition for higher or even modest paying work much fiercer than comparably paying non-cultural jobs. What this reveals is that workers exercise their personal authority in rejecting better pay for otherwise more desirable work, and, provided some set of workers are willing to work for below market rate, the price of the products in that market will trend downwards. Because this condition applies only in a subset of creative industries, it is unreasonable to discuss decision making capacity across all industries and all kinds of workers without recognizing differences in markets for labor and products as well as the motivations for workers to take less money for certain kinds of work.

More money, more choices

The significance of having wealth (as opposed to the motivation to earn more) is important to consider in regards to worker decision making capacity in creative industries. What research into the independent game making community in New York City reveals, in conjunction with studies of other industries, is that higher financial capital corresponds with a greater capacity to make decisions about work because it makes a number of options available that otherwise are not affordable. This said, there is an important caveat: this directly impacts firms as agents, independent or otherwise, but it mostly affects individual workers in situations where the worker is paying directly to perform the labor.

One important way in which existing financial capital affects creative workers is the impact on the choice to work at all. Florida (2012) suggests as much, saying that for post-Great Recession college grads, “Even though the job pickings are scarcer than they might have been for their older siblings, they still feel that they have… the freedom to
make their own choices,” and though they have a lot of student loan debt, he notes they are less likely to have large mortgages or children to support and many live at home or with friends (p. 67-68). Caves (2002) takes account of this issue as well, noting that would-be artists generally will pursue “humdrum” work “only as needed to cover the gap between living costs and art income” (p. 80), suggesting that some people will not choose to work jobs for income if they do not need to. Dawson et al. (2014) support this from a macro-perspective on voluntary self-employment (without particular consideration of what industry), assessing that higher disposable income facilitates peoples’ decision to become self-employed (p. 806).

Members of the independent game making community echo this idea, with those who have savings feeling more liberated to leave jobs or not look for them and those without money feeling pressured to become employed. X12, who just barely kept himself above water with contract and freelance development work, eventually found himself unable to sustain himself. He explains, “That’s how I ended up working at [a AAA mobile company], actually. I can’t make this work financially until I have some more money in my bank account so….” X03, on the other hand, is already working at a job in tech outside of game development; because of his very comfortable salary, he explains that, while he could be tempted to do freelance work for something that interests him, “I make enough money at my normal job, so I don’t need the extra money.” X15 is working on games, having left a very lucrative job in the tech sector, and he explains, “I made enough at [a large tech firm] to not have to worry about money for a bit, and now I’m kind of feeding off the savings in order to do what I want for the time being.” X04’s story perhaps best demonstrates this liberation from full-time work and pressure to find work
based on savings. Like X15, X04 left a well-paying job to work full-time on a game with his partner, but he explains, “When I ran out of money, I had to spend that time making money instead,” leading him to find contract work instead of continuing on solo projects. X17 too explains that with his savings dwindling, he needs to find work as well.

**Financing independence**

Given the evidence that suggests having money gives workers more capacity to make decisions in relation to picking and choosing jobs, what is the significance of money on available decisions within work? In this case, there is a distinction between independent work and traditional employment in regards to the relationship between financial capital and the capacity to make work-related decisions. Shepherd (1970) describes the use of expense accounts to facilitate labor by having a company pay for the expenses of the worker in performing a job as well as possible: he notes, “A man spending his own money on a trip will have a built-in tendency not to take the trip” (p. 60). Shepherd even opens his article with an account of a worker getting in trouble with his employer for not spending enough from the expense account. Jobs can compensate employees for spending on everything from meals to gasoline to entertainment, not taking into account the company’s paying for business space, hardware, additional labor, software licenses and more—but these opportunities can only apply to an employee and, sometimes to varying degrees, freelancers and contract workers. Someone who is more extensively independent has no such agent to provide that support and has no choice but to spend (or not spend) his or her own money to facilitate labor.
Agency and pay-to-work

The relationship between independent game makers and their personal finances supports this distinction: where workers pay to perform their own work, the extent of their ability to make decisions about how to perform jobs depends on their personal finances as opposed to the finances of the employer who could otherwise provide those resources. By contrast, workers employed by another firm describe being able to make more decisions—go on business travel, get skill training, procure software licenses, etc.—because the employer takes on some of the costs of those choices. Naturally, part of this has to do with the actual costs of labor, so some inexpensive aspects of work are minimally affected by being employed where others that are costly may be greatly affected—a fact supported in comparison to other industries with different incurred labor costs.

One noteworthy aspect of work in this regard is access to skills and training. Florida (2012) points to data that suggests that workers in creative industries, especially in fast-evolving tech jobs, describe themselves as being responsible for skill maintenance and acquisition as opposed to their employers. Florida partly attributes this change, especially in tech, to changes in the labor force that disincentivize companies from extensively training employees because “they frequently leave for better opportunities and greater challenge” (p. 98). This account, however, only speaks to the increasing prevalence of workers devoting their own time to training; Florida makes no mention of what money workers spend, only that the average time spent per week on obtaining new skills by New York City workers is around 13.5 hours. The assumption, naturally, is that when workers are responsible for training themselves, they will have limited options
based on what they are able and willing to spend for learning opportunities. In such cases, these situations open themselves to being characterized as exploitative—especially in industries that previously offered a greater amount of training and have since withdrawn that support—but this ultimately depends on how accurate Florida’s assessment of why organizations train less extensively is, and such an evaluation is beyond the reach of this research. Regardless, it matters little to independents, of course, who are and have always been responsible for their own professional development while being independent, apart from on-the-job instruction for contingently employed workers.

What the independent game maker community in New York City suggests is that the connection between the capacity for self-instruction and financial assets is significant, but interviews also show that employees in game studios do still benefit from the support employers provide for them. This is most visible in the way interviewees discuss attending large industry events and specifically Game Developers Conference (GDC), the largest and most important games industry event globally, held annually at San Francisco’s Moscone Center and famous for the high price of passes. Not everyone who is self-financed discusses any particular difficulty in choosing to attend GDC, even for people like X12 or X17 who express having financial hardships in other parts of their lives. Much more often though, people interviewed talk about wanting to go to GDC but refusing to pay for it themselves. X05, for instance, explains he never goes to GDC anymore “unless I’m speaking or somehow my ticket is paid for,” and X13 explains that he would like to go to GDC every year but has only gone once “on a company’s dime because money.” X09 too only goes to GDC because the company pays for the trip: “Something like GDC is a really expensive thing to do. Luckily this job paid for me to go
out, paid for my ticket, got me an Air B&B and it was hunky dory, but that’s a cost prohibitive experience.” X04’s description of his and his business partner’s trip on their own dime (more accurately, the dime of the studio they co-owned but self-funded) details how expensive this can get and how dramatic that sticker-shock is as a disincentive to pay one’s own way back there again. He explains that including flights, hotel rooms, and full passes, the trip cost more than anything that year by far. He only marginally exaggerates when he says, “That was like as much as I paid in rent for the year, it’s insane. Ok, maybe not that much, but it was still the same.” X02 likewise mentions the cost of attending GDC alone, specifically mentioning attempting to get a “scholarship type thing” to pay for the trip, but she never got it.

These accounts do not say anything about the extent to which companies are funding worker’s skill maintenance and acquisition opportunities, but there are cases both of companies paying and not paying. While X09 describes her company being fairly liberal with paying for her trips, X02, who also works for an employer, describes paying not only for trips to conferences but also a course on the modeling software Maya that she took in order to better understand the work of her subordinates. Community members point out other instances as well in which particular options and opportunities are only viable because of either personal savings or company support. X05 notes that while his studio has made games on cartridges before, he would never go that route now, saying, “It’s just silly. I’m not gonna make a game that needs that much storage, number one, and number two, it adds a lot of cost.” The only reason he made cartridges previously is because “That wasn’t on our bill.” X20 describes that the fact that his LLC has brought in no real money and did not start with any has had an impact on the compensation
approach he takes with his collaborators; rather than paying them outright (or even paying himself for time spent working on the game), he instead does things like offer a percentage of the company to the artist. X14 describes having a system where everyone who helps pay for things to make the game, including software licenses and advertising materials, will get paid back from the game sales before splitting the money fairly between studio members. Paying for work up-front is simply not an available decision because it is the company’s first game and they have no outside financing.

Something that complicates this discussion is that barriers to performing much of the work in independent games are so low—and this includes financial costs. The possibility of training for free, having free use of professional engines, and the prominence of free or low-cost events in New York City mean that the effect of self-financing on many workers’ decision making capacity is minimal because the cost of performing the labor is low enough that no financing is needed (materially speaking) for much of it. When asked about expenses, most workers point to high New York rents and travel costs to events; the work itself is a relatively small part of their personal economies. It has to be said that people may not even be considering more expensive choices outright because they are faced with so many viable inexpensive options; if they had considerably more money, it is difficult to say what they might do instead.

This point is only further supported in comparison to less recent accounts of working in the games industry where costs were much higher and provided fewer opportunities for self-financed laborers to work. Montfort and Bogost (2009) note that producing the ROM mask to manufacture an Atari VCS game cost around $10,000 in the early 1980’s (p. 61), marking a cost so extensive it was reason enough for Atari itself not
to remove Warren Robinett’s infamous Easter egg (the developer’s name) from *Adventure* when it was discovered after release. Given such a cost, a worker interested in self-financing faces a significant financial challenge in producing for the hardware market. In the early 2000’s, Kerr (2006) reports, “Obtaining the funding to develop an advanced demo is a significant hurdle for small third-party developers” (p. 81), in part because reliance on retail prevents companies from selling without a partner financing the project. To produce for consoles, Kerr also notes the extensive costs of paying for the manufacturer license fee and the software development kit (p. 85). All of this reduces decision making capacity by placing financial barriers before many of the options studios might have of making a profit, and if they should choose to work with a publisher and finance the project, they do so at the cost of at least some of the control they would have if they were more independent. This falls directly in line with Robson’s (1998) assessment that claims that people are more likely to become self-employed as personal resources rise relative to capital barriers for starting a business (p. 313).

This is the case in other industries as well. Becker (1982/2008) explains, “Artists who lack substantial financial resources cannot do work which requires costly materials, equipment, personnel, or space” (p. 95). It accounts for, Becker explains, the large number of poets and photographers who require relatively little financial support, relative to something like sculpture where material costs can be extensive. For the same reason, one can point to the proliferation of video on Youtube relative to theatrical film.

According to statistics from the Motion Picture Association of America (2015), 707 films were released to theaters in 2014, a number dwarfed by the amount of content posted to
Youtube which is an estimated 300 hours of content uploaded every minute that year\(^8\) (Brouwer, 2015). For the book publishing industry now increasingly populated by less costly e-books, independents and self-published work occupy a significant amount of landscape (Author Earnings, 2014). The amount of money needed to give workers a greater number of meaningful choices in their work thus also depends on the economic conditions for a given market: a thousand dollars can do a lot for a Youtube creator but essentially nothing for a theatrical film producer.

**Strategizing around the need for financial capital**

This chapter so far explores the decision making capacity workers gain from having access to financial capital that serves to help both pay living expenses and pay for making work related decisions that a company (whether or not the worker is employed or independent) does not provide. While this suggests that workers without financial capital lose a degree of control over work in certain cases, evidence from the New York City independent game making community and elsewhere in creative industries show a number of alternative sources for, and alternatives to, financial capital beyond the creative labor in question. Many alternatives, though, draw from a workers’ other non-financial capital or depend on the existence and accessibility of supporting institutions that may be industry or job specific. The dependence on fallback options indicates that workers may still be able to recover control otherwise depleted by the lack of financial savings or employer support. It likewise does not let employers off the hook if they are unreasonably depriving contractors or employees from more reasonable wages, training,\(^8\)

---

\(^8\) This is a bit of an unequal comparison, as the MPAA number relates to North American content and the amount Youtube content is global. That said, the degree of inequality in production is so substantial that the particulars of the comparison are irrelevant.
and benefits simply because the workers have the same ability to make work-related decisions they would otherwise have. This strategizing makes other demands on a worker’s resources which should not be ignored.

**Working outside the industry**

As previously addressed, having existing financial savings makes it increasingly plausible for a worker in the creative industries to pick and choose work as well as to become more independent within the industry (though the amount of capital needed to sustain that separation will depend on the industry). This presents an image of a worker in a creative industry where work within the industry is (well) paying and available, and while it may be at times for some, the New York City independent game making community suggests a different experience for many others. While there are workers in the community who earn living wages from independent game making, the majority of the income for many of these workers comes from outside of games entirely. This work, for these workers at least, often pays very high wages and can be highly available, depending on the marketable skills of the worker.

This is especially true for game developers, many of whom come to making games from computer science bachelor degrees which are widely marketable outside of independent game development, especially in New York City. X03 and X20, for example, make games in their spare time while otherwise working in tech jobs unrelated to developing games, earning six figure salaries. X15 used to be in this category as well, until he left a six figure job in a large tech company to make games full time off of the savings from that work. X04 likewise earned a similarly significant salary from non-game tech work and used the savings from that work to operate independently for over a
year, and while he currently is doing work-for-hire in independent games, he knows that doing web development is always an option—even if he desperately wishes not to have to do it. X12, like the others with computer science degrees, also worked a tech job for a few years before departing for independent game work; though he has not taken non-game work since this first post-graduate job, he describes having recruiters still contact him without provocation for non-game tech work a decade later. Even X01 who only minored in computer science while getting an entirely unrelated degree began his career in business software development, which, when he decided to start making games, he shifted from full-time and part-time.

Of course, taking outside work is a strategy many workers in the New York City independent game making community with other backgrounds employ and have employed to make or supplement income while making games, and the value of that work varies greatly on the worker’s specific skill set and background. X02 proofreads—originally exclusively and now for supplementary money; X07 did translation work before working as an employee for a studio; X01, X09, and X21 have performed in other cultural fields for small amounts of money. X13 and X07 worked retail—and hated every second of it—to pay the bills. X16 is a consultant as her primary job. X12 explains how common it is for people to make games on the side while working other jobs for money: “I've known so many people that they continue indie work partially, but you ask what their day jobs are and they are everything from fashion photographers to e-commerce people to working at magazines and libraries and schoolteachers.” Indeed, X01, X05, and X11 are all adjunct lecturers at colleges and universities in New York alongside their other full and part-time jobs.
Interestingly, it is even possible for game development studios (more specifically, heads of studios responsible for procuring work from clients) to get work outside of games entirely. Specifically, some describe getting contracts creating interactive pharmaceutical presentations for drug companies. X06 describes his studio making “PowerPoint presentation apps on iOS, so [most people] don’t see them.” He explains that they are for salespeople to show to clients and doctors to promote drugs. X12 likewise explains that he has worked on these “healthcare” presentations as well—projects that he estimates may take about six months of work each. In describing them, he suggests that game studios pick up contracts for these presentations because “a Madison Avenue huge advertising firm” which the pharmaceutical company has hired to conduct advertising “didn’t have anybody with the expertise to do this because ad agencies, the programmers they hire, they know HTML, they know CSS. They might know a little bit of Java, but the skill set necessary to make a mobile app is a lot more specialized and requires a lot more expertise.” X12 describes an environment in which game studios are an integral part of an unseen flow of capital and labor that people may have no idea involve game studios at all: the pharmaceutical company hires the ad agency to create an interactive presentation and the agency subcontracts the game development studio to create the app. The original pharmaceutical company may have no idea that this has even occurred: X19, for instance, describes how her studio may do “white label” work where her company creates the game for another agency which takes full credit for the work, even though it has been subcontracted to the agency she works for.

This kind of unrelated or largely undesirable work may be important sustenance for a studio or developer; X12 explains that making a game, even an independent one,
can become expensive if you are paying for people: “So there’s all these little side projects that indie devs tend to do, especially in New York where everything is really expensive… In the past, [people would make] the ‘punch the monkey and win twenty dollars’ flash stuff, [and now,] when the market for that dried up, now it’s [pharmaceutical presentations].” This work brings in great financial capital but obviously comes at the expense of both time (which now is devoted to working on this other project instead of a more desirable internally developed game) and the capacity to make decisions about the job (because the project is heavy dictated by a client, whereas an internal project may have no external demands on it at all).

This phenomenon of earning money in part or even principally outside or at the periphery of a profession is, of course, not unique to independent game makers. Leadbetter and Miller (2004) point to what they call “Pro-Am,” someone who is as dedicated as a professional but does not earn a professional amount of money from the activity, bridging the professional-amateur divide (p. 20). They cite the example of a Pro-Am tennis player who spends all of his spare time training, spending a substantial amount of money in his pursuit, judging himself by professional standards, but earning his money from coaching and not playing tennis (p. 20). Becker (1982/2008) likewise cites numerous examples across artistic industries of similar approaches. He notes, “T.S. Elliot worked in a bank and then for a publisher, Wallace Stevens was an executive of an insurance company, and William Carlos Williams was a practicing physician” (p. 96). Additionally, like game developers also doing business software development, Becker explains, “Painters may work as framers, composers as orchestrators, novelists and poets as editors” and he writes that it is common—as in Leadbetter and Miller’s example
above—for artists to “teach the art they practice, in elementary and secondary schools, in professional art schools, and as private teachers” (p. 96). Caves (2002) assesses, based on 1989 survey data, that the number of artists taking “humdrum” jobs is eighty percent, with forty percent having more than one (p. 80).

That twenty percent leftover do not necessarily earn enough from their cultural labor to make a living either; just as X12 says some people make games funded by their trust funds, so too Becker (1982/2008) describes artists funding themselves from inheritances (p. 96). If they require money to work (or, frankly, to live), they will often sacrifice time and agency in taking more reliable but restrictive work. As Caves (2002) explains, “Although starving artists are numerous, starved artists are not” (p. 21). When faced with the conflict between performing their work without sufficient compensation and finding alternative paying work, most workers capitulate: “Artists apparently undertake humdrum employment only as needed to cover the gap between living costs and art income” (Caves, 2002, p. 80).

**Family and social support**

Another common approach for independent game workers in New York City lacking financial capital is to mine other resources at their disposals. Beyond taking advantage of skills they can apply to jobs outside of the given field and sacrificing time and decision making capacity in performing that work, workers may request or take assistance from spouses, family and friends when it is available. Marriage or other long-term partnerships can be a surprisingly big help to people in independent game work accordingly. At times when workers are self-employed and bringing in no income, spouses may act as breadwinners. X13 describes how between ending a job at a AAA
company and starting a job later at an independent studio, he depended on his then
girlfriend’s paycheck (though, the fact that it was insufficient drove him to taking a retail
job to bring in more). For X01, he and his wife help supplement each other in times of
feast or famine: “Sometimes if it’s a slow period, well, my wife has a more regular job,
so in a slow period she tends to sustain us and on a good period I tend to sustain us.” X04
too cites help from his fiancée, saying, “She has paid more bills that I used to pay. Thank
goodness for her.”

Parents too can have a similar impact, though interviewees report this less
frequently. Some workers report getting loans (without interest, sometimes without the
expectation of being repaid) at difficult times. X01 notes, “I probably occasionally would
borrow a little money from my parents, and they certainly helped me with college… It’s
like, I need to pay my rent, can I borrow $500 or something until a check comes.” X04
says his parents might buy him a birthday and Christmas present as though he were little,
but he has rejected offers of money from them: “They’ve offered,” he explains, “and I’ve
turned them down because I don’t really want to take actual money from them. I’ll take
the occasional present but actual money feels like more I’m failing to meet my business
standards, I guess.” X05 explains that his brother has bailed him out, and he benefits from
inherited work in the form of a family business. X10 too has received support from his
brother to use towards development and training costs. X12 likewise supported himself in
part thanks to his parents. He explains, “I was very fortunate that I had this resource. It’s
a privilege not everyone has.”

One of the major contributions that a partner or family can provide is health
insurance—in spite of the passage of the Affordable Care Act (ACA) which, in theory,
has made insurance for the self-employed more affordable. Many workers, including those who are relatively well paid, depend on a spouse’s insurance, either because they have no access to it from work or because the spouse’s insurance is much better than theirs. When X09 was a freelancer, she notes that she had no insurance anymore and depended on her husband who “had a job good enough where I had his insurance” and even though she works at a company that offers insurance, she stays with his because “his is banging.” X05 too depends on insurance through his wife’s work, though he previously depended on insurance through teaching. X04 also depends on his fiancée’s insurance policy. Workers who are eligible may also stay on a parent’s insurance plan—which, thanks to the ACA, allows unmarried people up to age 26 to remain on a parent’s plan. X04 cites this specifically for how he stayed insured until he aged out. X21 too cites being on his parents’ insurance until he aged out of eligibility. Those too old to qualify for protection under the ACA and those who are single find themselves frequently uninsured. Sometimes it is because of the extreme expense (as X12 cites) or because they are otherwise healthy, lazy, or otherwise keep missing deadlines to apply (as X15, X06, X07, X17 and X14 describe). On the other hand, X11 describes himself as “full of holes,” leading him to want full-time work if only for the insurance. The significance of financial support specifically towards insurance is evident for some, but the fact that many of these workers may be otherwise paying a lot into an insurance system they do not draw much out from makes the benefits afforded by insurance through spousal and family resources difficult to determine in regards to helping make work-related decisions.

What is the cost to mining the support of a significant other or family to compensate for financial shortfalls? Obviously, there is the direct cost to the other party if
they are paying for something, meaning the worker’s cost is simply deferred to a different agent within their assemblage. If a worker happens to have no significant other or family, or those relationships are financially poor, the worker does not have meaningful access to the resources they might offer in other circumstances. Yet, even when the material support is immediately available, the fact that workers so often reject family support is telling of the psychological costs a worker incurs from taking this money, even if there is no later return payment. Fingerman et al. (2012) suggest that a child who feels that a parent is being inappropriately supportive may consequently suffer “diminished efficacy and initiative if grown children who receive such support feel less competent than other adults” (p. 882). This describes X12’s feelings about his parents’ support. He expresses his discomfort with any parental involvement: “I’m a little ashamed to admit it, but I don’t want to give the impression that [my independent work is] more sustainable than it is.” Just as Fingerman et al. suggest, X12 wishes to reject the money his parents offer—even when he describes his condition as so bad his parents told him, “X12, we’re scared you’re going to starve and you can’t do anything if you end up in a cardboard box on the street”—because he is too proud. He says, “I have too ingrained in myself this capitalist ethic that you should let bad businesses fail and good ones succeed, and they were sort of rewarding [me.]” This is similar to X04’s rejection of parental support because taking it would feel like “I’m failing to meet my business standards.” It is difficult to say how prominent this capitalist ethos actually is; a difficulty at hand in qualitative research of this kind is the dependence on honesty from participants. The fact that none of the participants were particularly shameless about getting money from parents and significant others to sustain themselves and their work is not itself evidence that the opposite does
not happen nor is it an indication of how common each attitude toward support actually is.

Expanding the scope of family support for workers beyond the case study at hand reveals, unsurprisingly, that spousal and family support can be available to adults regardless of profession. There are examples of this support found in other industries (see Becker, 1982/2008, p. 96; Olsson and Thoursie, 2015; and Jacob & Kleinert, 2014, for instance), but this is expected. In the case of spouses, the legal architecture of marriage points to the notion that these relationships may involve economic partnership—consider alimony or property distribution upon divorce. This typical function of partnerships inherently benefits workers who are more precariously employed or unpredictably compensated for work at the expense of the more stable, better paid partner (in the event that either is keeping tabs). Perhaps workers in the arts benefit more often from these exchanges because of their traditionally lower financial standings (see Caves, 2002, p.79), but there is obviously nothing inherent to marriage or civil union that suggests any other worker, in the creative industries or elsewhere, benefits any differently compared to a worker in another industry. The same applies for family and parental support: as Fingerman et al. (2012) indicate, “[P]arents were likely to provide a wide range of support to grown children of any age who were in positions associated with dependency” including being in school, being single, and living with their parents. Workers in lower paying and less stable work are more likely to be looked at as “dependent.” Again, this may mean cultural workers benefit more frequently than those in other more stable industries, but it also does not mean that there is anything special about cultural or creative workers in regard to parental support.
It remains difficult to assess the effects of spousal and familial financial or insurance support on worker decision making capacity, though dependence on that support can suggest exploitation by an employer who is failing to fairly provide for a worker. While responses by independent game workers suggests an affective cost to accepting financial support in some cases, especially from parents, it is unclear to what extent that support may involve other caveats or conditions because it depends on the particulars of the worker’s relationship to the provider and the specifics of the exchange. X10, for instance, notes that his brother has provided him money but explicitly for use in game making. This constitutes a loss of decision making capacity (not pertaining to his work, but generally speaking): had X10 earned the money himself, or had he gotten the money without that stipulation, that money could go to other life expenses rather than game-related expenses. At the same time, the money likely provides the resources that make other potential choices meaningful and accessible because X10 can now afford them. Just as is the case with workers taking jobs outside of their preferred industry, taking support from a partner or family member can involve a complex exchange of resources that can both enhance and deplete a worker’s capacity to make decisions.

**Venture capital and external funding**

If a studio or worker cannot procure capital from strong personal ties, they may have other financing opportunities, particularly venture capital or investors. Going public is certainly the mainstream approach across many industries—the effects of being publically held on media are well documented (see Elberse, 2013; Bagdikian, 2004; and Schiller, 1981). In fact, the existence of a large privately held entity in otherwise public industries makes the prominence of outside financing all the more apparent. Consider
Valve Corporation, whose private status in spite of its massive role in the PC games market is noteworthy enough for Forbes to produce a profile on the company pointing out its private status (Chiang, 2011). Of course being privately held, it is also unclear to what extent there may be other financial partners, but Valve clearly distinguishes itself from other major players in even its own industry, characterized by corporate consolidation under a very small number of very large publically traded corporate owners (Dyer-Witheford and de Peuter, 2009, p. 42).

The need for outside financing appears stronger in some industries compared to others, primarily because of the sunk costs required to produce a marketable product. For instance, it is a necessity for theatrical film and most smaller, “independent” film to seek outside financing because film production for theaters especially is so expensive. Perren (2012), in describing the rise of Miramax in the last 1980’s, continually raises the specter of financing, even for smaller films⁹. This too is true of television: Landman (2009) notes that a project’s creator struggles to find financing needed to “cover extensive start-up costs” (p. 142). It is no less the case outside of the cultural industries; the question for tech companies is not whether or not to find financing but whether that should be private or public (consider Council, 2015, on the unquestioned emphasis on external financing).

In spite of the prevalence of private and public financing in the most public parts of the creative industries, the general absence of outside financing (apart from family and spouses, as previously noted) in the independent game making community in New York

---

⁹ It is worth noting that what Perren focuses on in his book is more traditional theatrical—or at the least, straight to video fare. It should not be said necessarily that all film, especially in the digital film and Youtube era, requires this kind of financing. The Youtube era poses its own complications: the Angry Video Game Nerd, one such internet video producer, self-produces short videos for his audience without financing but produced a feature length film with financing procured through a crowdfunding campaign.
City is not surprising. For one, as noted previously, much of the game making labor can be done for free or at relatively limited expense—certainly compared to the amounts of money a company getting financing will be seeking. Unlike feature film or television, game production does not require extensive start-up costs (at least for the PC or mobile markets for which independents in New York City frequently produce) and most of the money “spent” on distribution is siphoned as a percentage by the marketplace (perhaps, if the games earns a large amount of money, also the game engine provider), rather than paid up-front prior to sale or production.

Yet, based on the previously established understanding of how financial capital can affect a worker’s decision making capacity, one would expect start-up funding to be desirable. To the contrary, interviewees suggest they would not want anything to do with venture capital or outside financing. Control over the project is a concern to some: X13 notes, “These are people giving you large sums of money so you can’t say they can’t have a say,” a sentiment echoed by X16, who says, “If you’re talking to an investor, I feel it’s a lot of pressure to satisfy their wants and needs in your project, so they can veto a lot of your creative decisions.” X14 likewise explains, “We didn’t want to take money from anybody making the game because once you do that, you lose a little piece of what you can do.”

In addition to this, workers largely see financiers as idiots in regards to games. X17 explains, “No one who has any money to hire people to make games knows what games are,” and X16, who interacts with venture companies and hedge funds in relation to larger game companies for her day job, says much the same: “I know how little they know about games, no. [These financiers] should not be making any creative decisions.”
X13, who says he had experience working for an independent company with venture capital involvement, notes that “if they are not savvy to software development, you can get some unreasonable requests.” His poor experience with these relationships leads him to conclude, “I would not want to do that again.” The response to financing is complicated, as it is unclear if people would be more receptive to more intelligent financiers: X16, for example, notes that a stupid investor can make bad requests, but, “If you find a good investor, good luck for you.”

All of this ends up being a largely meaningless question because as much as some workers talk about their feelings in regards to private financing, most in the independent games community in New York City never have any meaningful contact with people who might provide that service anyway. While a few people like X13 and X20 have been involved in companies with investors, none of the studios created by interviewees appear to have any such financing of any significant magnitude—and the studios X13 and X20 describe working for were verticals of larger multifaceted firms and not isolated game studios. X01 even describes having attempted to get a loan through the bank, but he explains, “It’s not something they will go for.”

X01’s difficulty procuring a bank loan for his studio demonstrates perhaps one reason for the lack of external private funding in New York City for games specifically. X01 explains that he believes that part of his failure to procure a loan has to do with the fact that it’s a game studio, but attached to that fact, he notes, “For a game, it’s a tough thing to prove that it’s gonna make money.” The essential function of outside financing (at least in the capitalist model) is that the investor expects for at least some of the money invested across different ventures to pay dividends upon success. A venture capitalist that
puts money into certain failures is one with a short career. As will be demonstrated shortly, making games in New York City is an exceptionally risky venture indeed, and this alone may contribute to the lack of interest in funding these game studios and projects, as well as similar problems across the cultural industries.

There is a second component as well affecting the availability of outside funding: the lack of knowledgeable investors in New York City specifically. The impression interviewees have of investors being idiots may partially relate to the fact that knowledgeable investors in games do not work as much in New York as they do on the West Coast where most of the larger studios reside. Absent that component of the local assemblage, it is no surprise that studios that might be interested in growing and becoming more like larger, conventional studios do not find the same number of knowledgeable, effective investors. This can contribute to a feedback loop: the lack of investor involvement and leads to a gulf between game makers and potential investors, which continues the cycle. In a sense, this indicates a loss of decision making capacity for independents interested in financing and growth, but at the same time, interviewees are lukewarm to this option—at least that is what they say. To what extent it would matter to these kinds of workers if investors were smarter and more plentiful is impossible to know with any certainty, though some would probably take them up on the offer.

There is a notable exception to this lack of investment: incubators. Business incubators, which Bruneel et al. (2012) suggest are a growing feature of the contemporary entrepreneurial landscape (p. 110), work by supporting startup businesses by providing services like work space, access to knowledgeable people and networks, and
shared resources between businesses working with the incubator (ibid). New York City is filled with incubators targeting a wide variety of different industries, from healthcare technology to fashion to video game development (see Digital.NYC, 2016). If a company is interested in an incubator, they submit an application, and if accepted, they gain various services depending on the incubator—the costs of which may be repaid by revenue sharing or a percentage ownership of the company. While there may be other incubators for games specifically in New York City, one dominates the community—the XNYCC incubator. Still in its pilot stage, the program offers a tightly scheduled three month program for XNYCC student work and a small number of non-students, explicitly providing information and services designed to turn games into releasable and financially successful titles. The costs for the program, as explained in a conference panel given by its organizer, are intended to be offset by revenue sharing from successful projects. The speaker specified that projects that do not sell a certain minimum amount pay nothing—only those that reach a reasonably successful bar begin to pay back to the program.

It is unclear how accessible incubators such as XNYCC’s actually are. It’s being a very new innovation for the New York City independent games community, it is unclear if it will be financially successful enough to maintain itself long term (an interesting position, given that the incubator as an entity can just as easily exploit a company by extracting an excessive amount of ownership or profit from it). What is clear is that they are not the dominant approach for workers in the independent space as it stands. Only one person interviewed, X17, mentions participating in an incubator, and while the time at the incubator imparted valuable lessons on marketing and advertising, the game ultimately did not sell all that well (owing perhaps to the nature of the game, as the worker
suggests). Two other interviewees had some interaction with incubators, but neither participated in one. X03 mentions finding an incubator out of California (where he could afford to live for the few months it would be happening), but he opted out (or “caved in,” he says) and found a normal day job. X21 bumped into a representative for an incubator locally at an XORG event. While he applied to participate, his studio’s application was rejected; he explains, “They got back and said we didn’t meet their requirements. I think they wanted at least 3 members, one who was business focused. I think our project wasn’t really far enough along anyway. I think we were getting ahead of ourselves a little.”

X21’s comments about the business orientation of incubators denotes one of the reasons they remain largely underused in the New York City community. As with traditional investing, an incubator depends on some of its supported projects profiting and returning the investment. Because so many independent studios are not growth-oriented or “business focused,” the incubator finds a poor fit with many of the projects people might actually be making. That said, for those that are interested in growth, incubators can provide valuable access to professional networks and knowledge, as well as perhaps a modest stipend that can accelerate professional growth with a less hands-on approach compared to a traditional investor. Specifics may vary, but the availability of incubators is a net increase in decision making capacity for community members who can access them.

**Government and other assistance**

Another way workers can navigate financial shortcomings is by taking advantage of offers from government programs and foundations, as well as a few other targeted forms of assistance. The complexity of these programs in government alone far exceeds
the scope of this project—it includes everything from municipal programs like local arts councils, to larger city-wide initiatives like New York City’s Digital.NYC hub for city-based startups and tech companies, to statewide incentives and programs such as New York State’s “Made in NY” initiative, to federal programs like the previously discussed Affordable Care Act which helps workers stay insured when precariously employed. Add to these programs foundations that may provide endowments, grants, and loans to workers or companies involved in certain kinds of projects or meeting certain demographic specifications. Search any website to a local bank in New York City and you will inevitably find resources specifically for women or minority owned businesses to procure loans.

This kind of assistance generally falls into a few categories which may affect decision making capacity in slightly different ways. The first is tax assistance. The federal tax code is littered with incentives for businesses from setting up retirement plans to making a business accessible for people with disabilities. This applies as well for people who are self-employed or run small businesses (such as many of the people in the independent game making community in New York City) with credits for having a home office or credits for providing healthcare through the ACA. As incredibly arcane as the tax filing system in the United States is, these kinds of incentives are things people in the independent games community report taking advantage of. When self-employed, workers get to deduct a lot of expenses that go towards their work, as X01, X02 and X07 discuss. X01 specifically mentions a Connecticut tax credit (he was living there at the time but worked frequently in New York City before moving there); he describes, “Basically every dollar I spent in Connecticut making games, I got… I don’t remember how much,
it was quite a bit, like 20-30% in cash back.” Because of this, he explains he was able to take projects that would otherwise only break even and still make profit. New York, he says, does not have this incentive though. X12 also describes how the way you arrange space for a home office can be the difference between tens of dollars and hundreds: “Every aspect of how you run the business as a professional indie developer is guided by this arcane tax code and it benefits a lot… if you play your cards right,” he explains.

Tax incentives matter, of course, but they do not come without their own difficulties. First, of course, is the knowledge barrier: people often know absolutely nothing about how to file taxes and even less about filing as an independent worker. While some interviewees report filing their own taxes, ten of the twenty one interviewed use an accountant or accounting service. The cost of hiring an accountant is only part of the drawback because the primary gripe from independents first learning how to file is the fact that people who are self-employed are supposed to file taxes quarterly (estimated taxes) rather than annually like traditional employees. The sticker shock of these tax bills can be dramatic if done incorrectly. X04 describes finding out about estimated taxes too late, and when he goes to file, he realizes he has to pay “five quarters worth of taxes.” As he explains, “It was a rough day to give all the money up.” X09 too had a similar story: “I wasn’t making the quarterly payments because that was dumb of me, and so I had an 8 thousand or 10 thousand dollar tax bill two years ago that just wiped me out entirely.” The only reason she found out there was a problem was because, she explains, she went to a “Goddamn accountant. You go to the accountant, say ‘Look at all my things!’ She’s like, ‘You fucked up!’ and I’m like, ‘NO!’” The second complication of tax incentives is couched within these stories of high tax bills: tax incentives are not direct payouts, and so
while workers may be paying less to the government, they are still paying (and lest workers forget, a tax rebate is money that has been overpaid to the government during the year). On paper, tax incentives look like money like any other, but in practice, it may open up some opportunities for savvy workers who know how to deduct certain expenses or just amount to a slight financial relief divided over the course of the year.

Beyond taxes, workers may find access to direct support from government and other entities that can help free up capital for work-related decisions. From the government, direct support comes in the form of welfare benefits like food assistance, housing assistance, and Medicaid, though in the independent games community, few people report having success accessing these benefits if they looked into getting them. X06 reports having been on a government health program as a poor college student, but he says he is not on it anymore because he makes above the income requirement (something he is unhappy about). X12 applied for unemployment after being laid off, but he found work before the benefits arrived. X17 mentions having applied for food assistance at one point, but the process was so complicated that he got frustrated and stopped trying to get it.

Getting information on how many people in the creative industries receive or are seeking these benefits is unclear; national numbers do not provide a good indication. Part of the problem is the emphasis within the creative industries literature on how salaries and overall financial standings for those workers are better than in other industries; Florida (2012) makes this claim, arguing that having a job in the creative industries contributes to a 16% overall increase in wages, statistically speaking (p. 41). Even accounts of lower paid workers, as in Banerjee et al. (2008) in regards to immigrant
Indian IT workers, does not account for government benefits (in that case, because the workers in question are on work visas and are not eligible anyway). If creative workers do fall into situations in which they should be eligible for government assistance, as is seemingly the case at times within the independent game making community in New York City, the fact that they are finding themselves unable to actually obtain benefits is an indication that even workers in the creative industries may be getting exploited by government inefficiency and an overall lack of budgetary support for welfare programs. It may also, though not always, indicate exploitation by employers who are underpaying workers simply because the job in question is highly desirable for some non-financial reason, though this applies obviously only to instances in which the workers in question are employees.

A third mode of support is through grants and loans (and the terms of those loans may be favorable compared to market rate). It is difficult in some regard to distinguish where a grant ends and a commission begins, but in either case, the idea is that rather than sales, this particular arrangement involves the funding coming before the labor is performed rather than afterwards and, unlike previously mentioned forms of financing, grants and loans do not normally involve loss of ownership (except, of course, for commissions which are intended for that purpose). In the United States, government grants go primarily towards scientific research, though money is divided across a huge number of economic sectors from education to environmental conservation to minority-owned businesses; the specific requirements of each particular domestic spending initiative are so varied and convoluted that it is unlikely anyone has a grasp on any more than a particular group of grants towards a specific sector. Grants often pass through
foundations or other institutions which parse the large government grants into smaller ones for individuals or companies that qualify for them. These foundations or other private institutions may also depend on private funding from benefactors or member support to supplement government funding. Government grants involve an astonishing amount of paperwork including financial reports, audits, and record keeping.

Within the independent games community, grants and loans play an exceptionally insignificant role. X01 has had the most extensive involvement with grants; one of the games he is working on, he explains, is being partially supported by a foundation and “a couple state humanities councils” due largely to the educational and historical content of the game. While he explains having applied for grants from the National Science Foundation, the National Endowment for the Arts and the National Endowment for the Humanities, none of his personal projects have gotten funding through them. X17 was part of a project that received a commission through a university to host an exhibit of an art game he developed and assembled, and X18 received a commission to produce work through a museum. Most of the rest of the people interviewed entertain the thought of receiving grants but are either unsuccessful or never get to the point of applying. Loans in the community are nearly unheard of, though there is one exception to all of this: student loans. Given the fact that the loans pay for access to degrees, it can be said that these loans constitute an increase in a worker’s capacity to make decisions concerning their career in the long-term, though likewise it can be said that the cost of loan payments does the opposite.

Notable about access to grants especially is that they emphasize funding for noncommercial ventures or ambitious job-generators. As Towse (2006) notes, “subsidies
and grants to artists are one of the ways to stimulate creativity that have been proposed as an alternative to copyright law” (p. 568). The examples from games cited above all concern educational or art-game content, and a review of New York City and State-based government services show a preference for larger and more ambitious kinds of work than typify the independent games community. Many of the available funding sources for the arts do not specifically exclude game projects from funding, but that being said, a review of the public records of grant recipients show at best a handful of game-related projects acquiring funding from New York based funding sources. No one interviewed mentions even applying for money from a specifically local source—even those like X17 and X18 who make non-commercial or “art” games. This may come as a surprise, given that since 1982, New York City specifically has had in place the “Percent for Art” law which requires one percent of “eligible City-funded construction projects be spent on public artwork” (The City of New York, 2016b), amounting to an expense budget of $156 million in fiscal year 2014 (The City of New York, 2016a). The money obviously does go somewhere, so whatever is not being spent towards game projects ultimately benefits other cultural institutions, such as city museums and Lincoln Center. The imbalance serves to indicate that eligibility alone does not account for meaningful impact of grants on decision making capacity; they only matter if the community has some reasonable access to those funds. At the same time, none of the interviewees seem to have any sense of the available funding sources, which may suggest that funding might be more available than it appears to be and that independent game makers simply do not know how or where to get access. This is doubtfully unique to game makers (though their recent appearance in the city’s cultural community likely plays a part in the lack of communal
knowledge on the subject). Then again, given most grants’ emphases on providing for non-commercial projects, the many independent creative workers making commercial projects will not find any of these opportunities empowering anyway.

**Crowdfunding**

One of the most contemporary solutions to financial shortfall involves crowdfunding: employing networked technology to raise funding for the purpose of a specific project or company mission. In some respects, this is not exactly a novel approach to securing financing: consider patronage, both private and governmental, in which a worker receives support from the patron under some set of terms. Becker (1982/2008) says of artistic patronage that the patron supports the worker to “produce specific works, or a specified number of works, or even just possibly to produce some works,” and the degree of control the patron has over the production is dependent on the specific agreement (p. 99). While the idea of patronage evokes the time of the Medici’s and precapitalism, the patron concept is little different from contemporary crowdfunding (the crowdfunding site Patreon draws specifically from patronage as its nominal metaphor, for instance). The most direct distinction between more classical understandings of patronage and contemporary crowdfunding is the number of people involved. Where patronage might involve one entity—a wealthy benefactor a la *Great Expectations*, or the state—crowdfunding, as its name suggests, involves contributions from a swath of disparate people interested in seeing the project be finished or the work continue to be made.

As with other funding mechanisms, both patronage and crowdfunding potentially come with their own costs to the worker or studio. What the cost may be can vary widely,
especially for patronage where the terms of the financing may leave the worker free to do as they wish or they may be highly restrictive (Becker, 1982/2008, p. 99). Crowdfunding too can involve different costs, depending on the type of crowdfunding in question. Gabison (2014) mentions four different kinds of crowdfunding: donation, reward, lending, and equity. In donation crowdfunding, the donator receives nothing tangible at all, as in a philanthropic model. Reward-based crowdfunding (the kind most typical in cultural institutions as provided by services like Kickstarter and Indiegogo) works by offering rewards to people who pledge, based on the pledge tier. Lending crowdfunding provides funders interest payments in return for initial financing. Equity crowdfunding is an IPO in which contributors get shares in the venture in return. Typically, references in the cultural industries to crowdfunding are to reward-based crowdfunding or donation crowdfunding; there are no figures on the prominence of equity or lending-based crowdfunding across sectors.

People who partake in crowdfunding (that is, principally reward-based) find that they lose decision making capacity in exchange for financing (provided, when applicable, that the project meets the funding goal and the campaign succeeds). Even with the examples of successful campaigns in the New York City independent game making community being few, there is consistency in that regard. Beyond the work involved in simply building and running the campaign, a successful campaign requires maintenance work. X01 explains, “It was really intense. It was a lot of work, and it continues to be a lot of work…. It definitely has taken a lot of time away from me that I would have rather had making games…. Creating the campaign, and then promoting the campaign, and afterwards, dealing with the community.” X02, while she was working on a
crowdfunding campaign, describes being responsible for producing newsletters and Kickstarter backer updates. X05 describes producing these updates as incredibly cumbersome: he explains, “Even with that, it’s just so much time and effort. It’s like, I could be spending these two hours or whatever that I’m sending you an update actually working on my game.” Beyond the fact that the work involved in creating and maintaining the campaign takes resources away from the game itself, X05 brings up the fact that the people funding the game feel entitled to some degree of control over the decisions made about the product (not unlike how traditional financiers might be described). He explains, “You’re also tied down by these guys who are like, ‘Well, I gave you ten dollars so I’m an investor in your thing and I want you to do this and I want you to do that,’ and I’m like, who needs this shit? You can take your ten dollars. Please take it back. I’m more than happy to give you your ten dollars back.”

This varying loss of decision making capacity (directly, through active involvement, or passively by siphoning later revenue or time that could otherwise be spent on the labor) is not unique to games. Belleflamme et al. (2014) describe how crowdfunding rewards include monetary as well as non-monetary costs, such as voting rights. Loss of control in making decisions is inherent to any non-donation-based crowdfunding approach, and it still applies to donation approaches if the recipient is required to provide updates. Even if the funders receive nothing as a reward or return on investment, the campaign itself costs time. Each further reward or incentive adds a cost to the process of one kind or another automatically, leaving less time or money that the workers running the campaign might prefer to employ elsewhere.
On the other hand, the loss of this decision making capacity does not really suggest an increase in potential exploitation by funders over project workers. In fact, the system better facilitates exploitation of funded projects over contributors. As it stands, the law and crowdfunding platform policies typically favor producers over funders where the SEC is not involved. As Moores (2015) describes, even if a project surpasses its funding goal, there is no legal requirement that rewards be awarded or refunds offered. Moores explains, “Kickstarter states that a project creator is obligated to make a good faith effort to complete his or her project or otherwise be subject to legal action by backers” (p. 390), and while Kickstarter’s Terms of Use require creators to honor agreements to provide rewards or offer refunds, Moores states that the service “neither provides nor suggests any methods for backers to hold project creators accountable in the event that promised rewards are not honored” (p. 390-391). It is difficult under these conditions to describe a crowdfunding project as exploitative to the project creator; not only does the law offer a back door for creators to escape the promised obligations (even if that comes at a severe cost to reputation and decision making capacity down the road because of it), but one must also remember that it is the creators alone that make the decision to establish those obligations to start with.

Of course, the entire point of crowdfunding is to offer an alternative method of financing for projects otherwise unable to be made and support workers unable to otherwise earn a living. Reports of the amounts of money raised in crowdfunding campaigns still suggests that it is mostly inadequate to fully support creators anyway. Braet et al. (2013) examine the Flemish independent film market and conclude that the high cost, as well as small market, for crowdfunded film will leave that option
unsustainable (p. 21). This is supported by Kickstarter’s own statistics. Of about 100,000 successfully funded projects, nearly three quarters raised less than $10,000 and just over three thousand raised $100,000 or more (Kickstarter, 2016). This is further supported by Belleflamme et al. (2014) who note that while crowdfunding is first and foremost a way of raising money, it also functions as a potential marketing, testing, and promotional tool. This is indeed how X05 describes the way his successful campaign worked. He says, “As a marketing tool, it’s good. As a fundraising tool, it’s terrible because you’re not gonna make that much money anyway.” Even though he explains that the project reached its goal of more than $20,000, the money does not go very far at all: he explains, “Well yea, if you have a full staff, you’re gonna spend that in two months, or less, because not all of it’s profit, and what are the rewards?” Just as Braet et al. (2013) describe, the viability of crowdfunding depends on the worker’s or studio’s anticipated production costs. X05 explains the ideal example:

Let’s say you live somewhere else—let’s say you live in Piskokie South Carolina or whatever, you’re rent is $200 or $500 a month, and you don’t spend that much money on food, computers are pretty cheap these days. If you ask for $30,000, ok, it’s not a luxurious living, but you could spend a year making your game and finish your game and that’s great. But if you’re somebody like me and you live in New York City, and rent being what it is? I mean, a little tiny cubicle costs $800 a month. People pay less than that in rent in other places and they have a full flat!

Essentially, crowdfunding can significantly improve decision making capacity for modest projects, but it is unlikely to provide the full funding needed to support the project throughout development. Add to this the fact that Kickstarter’s success rate is only 36.37% and the viability of crowdfunding for the average worker comes into serious question. The amount workers are likely to raise and the low probability of reaching even those modest goals only further minimize the potential for crowdfunding as an effective, reliable long-term funding solution for contemporary workers. In the end, crowdfunding
is not always a meaningful option for workers, and even a “successful” campaign may not provide enough capital to meaningfully affect the worker’s capacity to make other decisions.

**Independent earnings**

The much of the chapter thus far elaborates on the options workers in creative industries have for addressing the need for financial capital and what those options cost in exchange decision making capacity for the money. The most obvious way one would expect workers to make money is by working. As it pertains to salaries, there is considerable evidence pointing to the higher wages creative industry workers earn relative to other industries. According to May 2015 data from the U.S. Department of Labor’s Bureau of Labor Statistics (BLS, 2016b), while the annual mean wage across all occupations is $48,320, jobs in the creative industries compare favorably: management occupations pay an annual mean wage of $115,020; computer and mathematical occupations pay $86,170; and education, training, and library occupations earn $53,000. Creative industry labor compares favorably to sales ($32,320), food preparation and serving related occupations ($22,850) and construction and extraction occupations ($47,580). Freelance labor likewise appears to earn more than the national averages; according to a 2015 report (Freelancers Union and Upwork, 2015), 60% of freelancers who come from traditional employment earn more as freelancers and most of them report earning more than traditional employment within a year (p.4).

Discussions of high wages in the creative sector belie the fact that most independent games (that is, games initiated entirely by the studio making the majority of it and not contract work) earn back nearly nothing—legitimately nothing, and far less
when subtracting expenses. Of those interviewed in the New York City community, only X01, X05, X07 and X08 can say that their independent games earned back living wages without supplementary contract work or other outside employment (and even then for some of them, not every year). For the others working on their own games, the numbers are incredibly grim. X10 reports that his game, the result of three people working part-time, earned about $60 (split three ways, he notes) over the span of its first few weeks. X21 also estimates his studio’s first game earned about $70, split between him and his partner. X03 explains that for his most recent release, “I had a launch party with my friends that I think all of them bought the game but that’s about it.” X15 explains he has sold 150 copies of his game at $40 apiece, which would come out to around $6000, except that with material costs and other labor expenses, he explains only about $10 of each game comes back to him, meaning his work has earned him closer to $1500 at the end of the day. X17 says that the sales of his critically acclaimed game amount to only around a thousand dollars: he explains it’s nice “because every time someone buys one, it’s like buying me lunch. It’s like a one to one.” These depressing numbers tell half the story, as X04 explains: in describing how much he earned from his studio’s independent title, he says, “Negative. Far, far in the red. Depending on how you count it, at least a hundred, two hundred thousand dollars in the red,” an estimate he reaches by accounting not only for sunk costs in production but predominantly lost wages he would otherwise have earned had he kept his salaried non-game job while making the game.

Those that do earn a reasonable amount of money from working in the independent sector in New York City overwhelmingly depend on wages from employment as opposed to sales. Some, like X06, X02, and X16 get paid to work—the
first two for studios earning a salary and X16 being paid in small increments over time for part-time work. Salaries that interviewees report for game work generally fall far below salaries for non-game software developers or engineers, but contract work can be lucrative. X04, for example, could not make anything from his studio’s independent title, but working on contracts for other studios, especially on educational titles, earns him pay roughly equal to his salary prior to entering games (though he notes that this does not include benefits and is far less stable than his non-game work had been). The number of these contract jobs is difficult to gauge, but X01’s assessment suggests that the competition for contracts has contributed to financial difficulties over time and affect his decision making. He explains, “We were competing for the same projects and sometimes he [his now partner but then competitor] would have a bunch and I would have nothing or I would have a bunch and he’d have nothing.” The impression from interviewees is that contracts are scarcer than the number of workers; the choice for X01 to sacrifice the autonomy of being the sole-owner of his own studio in favor or earning more contracts partnered with someone else further demonstrates the way in which control over work and finances can be exchanged for one another.

This same problem of low earnings for independent workers appears in accounts from other cultural industries as well, though contemporary data is difficult to find; in the U.S., the BLS does not regularly track self-employment or freelance labor data nor income from self-employed or freelance workers. Caves (2002) cites data from 1978 finding that Canadian freelance writers earned less than the Canadian median income. A 2011 report by the National Endowment for the Arts ([NEA], 2011) notes that while median salaries/wages for artists as a bloc are above the median salaries/wages for the
U.S. labor force as a whole, the same is not true for all cultural jobs equally. While architects, producers and directors, writers and authors, and designers earn above the median for the broader labor force, the following categories of workers earn below that number: fine artists, art directors, animators, actors, musicians, dancers, choreographers, photographers, and “other entertainers” (p. 10). Caves (2002) cites data that points pessimistically to artist income particularly in New York (which the NEA, 2011, notes has the most artists as a percent of the state labor force, 2.3%, in the country, p. 17). He points to survey data from 1989 which finds median earnings for art at merely $3,000—and, given the same study cites mean annual art-related costs at just under $10,000, artists in New York earn negative $6,000 annually. That same data describes, as suggested earlier in this chapter, the prevalence of humdrum or outside income: Caves notes that “Eighty percent of sampled artists held humdrum jobs, 40 percent more than one” (p. 80), and, given the gap between costs and typical earnings, this makes a great deal of sense.

The extremely low wages and prominence of lower paying and more precarious contract work in cultural labor relative to non-cultural creative labor, which while perhaps precarious is better paying than the national average, speaks to an important difference between cultural and non-cultural creative labor: working on games or the arts more broadly can for many at certain times and under certain financial conditions be more desirable than more available and much better paying work outside of those industries. This distinction plays a considerable role in assessing decision making capacity and how it is unreasonable to make unqualified comparisons between cultural and non-cultural creative labor.
Desirability of cultural and non-cultural creative labor

The question at hand is why workers with otherwise marketable skills (as in the case of game developers, but also in other cultural industries with “humdrum” jobs which workers may be qualified to perform) continue to work for less than they can otherwise be earning. Arguments raised suggesting inadequate pay in the broader creative industries do not resolve this at all; specifically, a lot of scholarship discusses how workers lose pay by working to promote themselves or some other non-monetary reason (see Terranova, 2013; McRobbie, 2002; Lazzarato, 1996; Arvidsson et al., 2010; Banks and Hesmondhalgh, 2009). Even still, the data points to higher wages in creative industries relative to national averages and lower wages in a separate subset of industries. The criticism of creative labor does not address this schism between cultural and non-cultural creative labor.

The most convincing explanation for the discrepancy in income between much cultural and non-cultural creative labor is the desirability of cultural labor over other options. Caves (2002) suggests, in what he calls the art for art’s sake principle, that “artists will choose low-paid creative work over better-paid humdrum labor” (p. 73). Regardless of the particular rational behind this, what Caves indicates is that workers actively and rationally choose lower wages in exchange for artistic or more creative work. Decision making capacity is inevitably implicated in this exchange, but it is difficult to clearly define how for every possible scenario. Caves’ principle applies as much to workers with little control over their work, such as a technical artist at a AAA video game studio, as it does for those with greater control, such as a highly trained independent developer working on her own project. The technical artist perhaps may be
the “humdrum” equivalent option for the independent worker (being that it pays higher and is more stable), but that technical artist could very well be better paid being a worker in the business software industry instead. In both of these cases, the workers in question sacrifice pay for artistic work and it is unknown if the desire to have more control over work-related decisions factors into the choice to stay at their respective jobs at all, though it presumably could. Caves’ position is that a largely restrictive artistic job is preferable to the more agentic humdrum option, meaning that some quality of the arts or cultural work is a greater motivation than decision making capacity alone.

What Caves concludes from this principle is that the increased desirability of cultural work over non-cultural work contributes to the inequality between artistic and humdrum incomes—a major reason not to view both cultural and non-cultural creative labor under the same umbrella. There are two implications of this desirability on worker income. Firstly, the fact that cultural industry labor is more desirable than comparable humdrum labor means that the supply of labor for cultural work will be greater than for the humdrum option. This alone does not mean that wages for the humdrum option will always be greater; Marx (1867/1990) argues that “relation between demand and supply explained nothing, with regard to the price of labour or any other commodity, except… the oscillations of the market price above or below a certain means,” (p. 678) that “certain means” being the “natural price” of that labor. What Caves argues instead is that “[t]he number of candidate artists greatly exceeds the number who can earn as much as humdrum jobs would pay” (p. 33). In other words, the competition for jobs that pay equal to or greater than humdrum labor is greater in the artistic work than the humdrum, leaving a larger number of workers making less than the humdrum workers (and, based
on his wording, Caves is implying that this value of humdrum labor is the minimum value of humdrum work). Furthermore, “Given the elastic supply of would-be artists, their competition will depress that average wage earned from creative work below the wage of humdrum labor, by an amount reflecting the strength of their preferences for creative [that is, cultural] labor” (p. 78). This conforms to the previously presented data on the lower value of income from artistic wages, but it also suggests that this is not unique to cultural work; wages for work will decline in general relative to the preference for that work relative to another available option.

There is a second consequence of this inequality that further depresses cultural labor wages and thus decision making capacity for workers in cultural industry professions: systemic oversupply of cultural products. Whereas the previous position explains low wages (or more appropriately, stronger competition for adequately paying jobs), this second explains low sales and earnings, especially for independents. Caves asserts, “Fledgling artists… will, we know, accept near-zero artistic wages as an investment in creative success” (p. 78). This conforms to other discussions suggesting that the cultural professions are subject to what Caves calls a lottery prize phenomenon (p. 57). Given that the eventual value of a cultural product is impossible to know ahead of time, especially compared to a traditional commodity, workers may believe that anything they create could be a big hit. Menger (1999) suggests that this risky quality in the cultural fields attracts risk-takers hoping to make it big, further expanding the already overcrowded labor and commodity supply (p. 554). The low average value of cultural commodities thus results from two situations: firstly, the number of people making these products tends to be greater than the market’s demand, meaning the value of the product
has a tendency to fall; secondly, given that a certain amount of the labor force is willing to produce the commodity for little or no value or without consideration of the market price for the product, the price of that commodity will continue to fall. So long as there is still a possibility of hitting it big, people will continue to take the risk, provide product that may earn nothing, and work for sub-humdrum wages, or no wages at all.

A case study in labor and commodity value: the Indiepocalypse in New York

To evaluate Caves’ assertion that the values of cultural labor and the products of that labor will drop relative to the desirability of the work, consider the value of independent games and perceptions of the marketplace. The case in question concerns the discourse of the “Indiepocalypse” which flourished in mid-2015 among independent game developers on blogs and Twitter. The discourse involves the question of whether or not the value of independent games had dropped and previously successful studios could no longer survive. At the heart of the discussion is the matter of supply, as it is with Caves. Within the Indiepocalypse discourse, the argument goes that a rapid influx of new independent developers circa 2013, heralded by the popularity of high profile independent games like Minecraft, the highly successful documentary Indie Game: The Movie, and Steam’s introduction of the Greenlight process expanding the number of titles released per month corresponds with not only low earnings from new developers but also lower earnings from previously more financially stable studios in operation prior to 2013.

On the question of whether or not supply rose since 2013, evidence suggests far more people entering the production field relatively recently. Of twenty one interviews in the New York City community, the median number of years people reported working as “professional” independents was three years (that is, starting roughly around 2012 or
2013). Of the participants, only seven of the twenty one claim to have been working longer than 5 years—and this does not necessarily mean that their first games were published prior to 2013. This small sample size makes arguments about profitability prior to 2013 difficult to make, but the abundance of newer people entering the field supports Indiepocalypse claims about the growing field of people following the popularization of independent games marked roughly around the arrival of *Indie Game: The Movie* in 2012.

Interviewees who were working prior to 2013 did clearly have some degree of success in that time period (though it is important to point out that, naturally, unsuccessful developers over that time may have dropped out prior to my investigation; it would be wrong to imply that simply being a developer prior to 2013 meant immediate success). X03 reports that his first game, a niche education game released on the iTunes store in 2011, earned around $14,000 in sales over the course of around three years. He associates this success specifically with its being featured on the store: “I was making $100 a day then, which was nice, but that dropped off immediately after it wasn’t featured.” X05 began a studio in the 2000’s and sustained himself and a full-time staff through primarily contract work to produce rich media or small games for online platforms. X01 similarly sustained himself on contract and freelance work through this period at roughly $50,000 a year on average. A number of others sustained themselves working as salaried or freelance employees for similar companies prior to 2013 as well: X02, X06, X09, X12, X13, and X19.
Perhaps the account that best exemplifies the era is X08 who has created his own games and published other titles for eight years. While he sold titles through casual portal Big Fish to great success as well, he particularly notes the importance of Steam in 2012:

Before 2012, I would have said that being on Steam helped you considerably because you would get on the Steam page and you would have visibility for a week, you’d be on that front page. It was a license to print money. If I could go back to any time in my life it would be 2012 because we were just earning more money than we could ever spend-- it was ridiculous.

X08 has had a part-time PR representative since 2010, but he openly admits to relying mostly on Twitter and email for driving engagement with his titles, having only tested the waters in 2015 with a $100 investment in Twitter advertising. What is most notable about X08’s account is how insignificant any specific investment in enhancing visibility appears to be in relation to the success of titles in 2012 and earlier. Simply being on Steam gave at least a week of visibility and, accordingly, dramatic sales numbers. He also notes the importance of another online distribution platform Big Fish’s promotional strategy which was designed to drive “power users” of the service towards new games: the portal offered users the opportunity to purchase games at a discount provided the user purchased at least 12 games a month. X08 says, “People were probably buying your game for less, but more people were buying games and there was a greater chance they would buy yours, so that worked out well for us. So suddenly, it’s like look at all this money.” Even with Big Fish’s 70% cut of the sales, this was still an effective sales strategy for X08. Again, no real investment into visibility was required because the system itself so strongly supported the games being sold by offering prolonged exposure or encouraging bulk sales. This points to a high natural value of the product and stability between supply and demand.
Kickstarter likewise offered companies starting capital that made it possible for many of the interviewees to be hired, with some caveats. Three interviewees work either full time or as freelancers for a project originally funded through a highly successful campaign in late 2012. Both X02 and X19 worked full time on other projects that were also funded through successful campaigns—X02 worked on two projects launched in 2011 and X19 on a project launched in late 2012. Another two are working on ongoing projects funded in part through completed campaigns: X01, whose project was Kickstarted in late 2012, and X05 whose project was launched in early 2014. There were also failures as well: X11’s $20,000 Kickstarter campaign in early 2015 was cancelled early (though he suggested that friends and families would have been able to complete the funding. Simply put, he explained it was “unsuccessful”). X19’s company followed up after their successful Kickstarter campaign with a failed one in mid-2012 with a $100,000 goal that raised a small fraction of its asking.

What contributes to a successful crowdfunding campaign is tremendously complicated, though scholarship has presented some conclusions: success for projects is, naturally, connected to signs of quality (Mollick, 2014), but probability of success is also positively correlated with proximities to large social networks to exploit (Horvát et al., 2015, and Colombo et al., 2014) and it is negatively correlated with the amount of money being solicited in so-called “all-or-nothing” platforms such as Kickstarter (Kuppuswamy and Bayus, 2013). This might help illuminate the aforementioned successful and unsuccessful campaigns out of New York City—X19’s six figure campaign goal could be considered too high, for instance—but it does not elucidate the relationship between
funding outcomes and the numbers of competing projects which is the central debate in the Indiepocalypse.

On this subject, one significant concept scholarship has yet to resolve is the idea of crowdfunding fatigue, which has otherwise been reported in press and anecdotally. At its core, this concept mirrors that of “donor fatigue” in charitable giving. Brown and Minty (2006) describe donor fatigue as “a state in which donors have already exhausted their resources or in which they grow complacent about appeals for charitable gifts, leading to a diminished public response” (p. 9). The more a potential donor is exposed to calls to donate (e.g. the more a potential donor sees images of a natural disaster on television and is asked to give), the less effective exposure is in actually drawing a donation, either because the donor has nothing left to give or because they are otherwise desensitized to the request.

This concept has been suggested as applying to rewards-based crowdfunding campaigns as well. In one article, Stewart (2012) cites someone in the book publishing industry who expresses concern that “we’ll get ‘crowdfunding fatigue’ where the projects themselves are undervalued by the fact that they’re crowdfunding projects.” Digital etiquette columnist Steven Petrow (2015) connects fatigue on a more personal level: someone writes in concerned that he is having a problem because too many of his friends are requesting funding for their crowdfunding projects. Likewise, Randi Zuckerberg (2013) explains in a Huffington Post article that Kickstarter used to be new and exciting, but “the novelty and appeal have long since worn off.” She explains, as Petrow does, “many people complain that they feel inundated by Kickstarter requests.”
The connection between these accounts of crowdfunding fatigue and donor fatigue is volume: if crowdfunding fatigue exists, it would follow that potential funders feel overwhelmed or tapped out in the face of so many projects competing for attention. Interviewees also noted the Kickstarter fatigue issue and pointed especially to the importance of preexisting visibility going into successful new campaigns—something that suggests that the same amount of financial success requires a greater amount of work on the project compared to the time before 2013. X02 notes that the remarkable success of her company’s second Kickstarter campaign owed much of its money to the exceptionally successful *Double Fine Adventure* campaign at the same time: “We were actually one of the suggested projects that followed after you backed that. We got a huge increase and that was the last week and then our project ended. If they had launched right when we’d launched, then that project would have finished with, like, quadruple its actual amount.” Since then, though, she notes:

> Basically you have to bring in your own publicity. Especially now, it’s much less effective as a promotional technique that’s going to bring you a big audience, but if you have an audience and you can direct them to it to get traction, then that works. That’s why it works better for established creation. It’s much harder now as a discovery platform. It’s much harder to get press about now because no journalist ever wants to hear about your Kickstarter launch and back then, you could actually say, ‘Hey, we’re launching a Kickstarter’ and that would be news worthy. Just a lot of Kickstarter fatigue now…. So, it’s definitely changed a lot. It never was a sure bet; it’s a lot harder now than it was.

Unless you are someone popular like The Oatmeal, she says, having Kickstarter serve as a publicity platform does not work: “I guess it was good at that for a very brief period following *Double Fine Adventure* and other than that, it’s not that good at that.” X09 speaks to the problem from the reverse angle, hassled by friends asking to support their campaigns: “Before I was making decent money… it was like, ‘No man, I need 20 bucks!”
Those are my 20 bucks! I need this 20 bucks!’ Six friends are like, ‘We need your money,’’ and I’m like, ‘I don’t have that for you!’… And I think that it’s nice that some things have succeeded and it’s good, but I think it’s a big strain on the community sometimes, because not everybody can be funding everybody’s shit.” Even developers fall into this trap of supporting already well known projects; X11 says, “I honestly think the people who have the really successful Kickstarters are the ones who are already successful like Tim Schaefer, super successful already so people want to give him money because they love him. I did.” X14 mentions doing the same. In fact, of the aforementioned six Kickstarted projects interviewees had been or are participating in, three owe success directly to existing “brands,” as X19 describes them. X02’s second Kickstarter owed success to traffic driven by the wildly successful Double Fine game powered by Tim Schaefer’s fan base, X19’s successful campaign was a branded game for a YouTube celebrity, and the project employing X02, X09, and X13 was another branded property from an internet celebrity. None of the unsuccessful campaigns had any celebrity or brand attachment.

The ineffectiveness of Kickstarter post-2013 notwithstanding, recent years have seen consolidation, downsizing, and refocusing of previously more successful studios, further suggesting the negative impact of increased competition purely as a result of macroeconomic pressures on worker decision making. X05, faced with the high cost of maintaining full time staff and bookkeeping, decided to fire most of the full-time staff. Faced with competition, X01 and X05 merged and opted for hiring freelancers to reduce overhead. X03, following the marginal success of his first title, took a brief hiatus from his full-time job to work on a subsequent title—which he claims was “an epic failure” in
regards to getting the word out and earning anything. He soon found another full-time job and proceeds to work on assets and independent games, earning less from them than he did on the first title. X17, after years of scraping by on freelance work and insufficient independent game sales, opted to take a salaried job at a mainstream development studio. X19 notes that after the early success of her company’s game projects, by 2013, management was moving away from games and apps. She subsequently left for a different studio with an emphasis on advertising and occasional branded adver-games.

X08, who speaks longingly about the halcyon days of Steam in 2012 and Big Fish, likewise changed approaches afterwards. Big Fish abandoned its sales policy that enforced a 12 game per month minimum for lower sale prices; sales figures for a subsequent game dropped precipitously (in spite of a high Metacritic score). As for Steam, he says, “[W]hen Steam opened up the floodgate with Greenlight and everything, things changed. Now you are on the front page for an hour. Steam is just the bare minimum of what you have to do. It’s no longer the key to success…. It’s the bare minimum you have to do.” His business has shifted towards producing its own titles and away from publishing 3rd party titles in order to keep more profit in-house.

This pattern of success prior to 2013 and a slow shifting decline or consolidation—and the fact that none of the interviewees who began releasing games after 2013 earned more than a few hundred dollars for any of their independent titles—supports the position that indeed the Indiepocalypse is occurring and began with the roughly simultaneous arrival of Steam Greenlight and Kickstarter fatigue around 2013. At such a time, the number of games and potential projects on each service began to
negatively affect sales for some of the games from preexisting companies that had been more successful prior.

This case study concerns a decline in commodity value driven by a rapid influx of new product. What this contributes to is a tendency for a worker’s capacity to make work-related decisions to decline across the industry with widening income inequality, stagnant industry consumer growth, and wildly expanding supply. In the New York City community, this means a predominance of contract or part-time approaches to independent game development because the probability of earning a living wage is severely disrupted by competition on the most viable distribution platforms. These conditions contrast with Ross’ (2013) position that the reasons for lower wages in creative work are more ideological and driven by capital’s interest in exploiting laborers. He argues that the idea of the so-called “attention economy” (p. 13) is simply a way to dignify encouraging workers to work for little or nothing because the exposure and experience from work is sufficient compensation (p. 13-14). Whether or not this is true in the case of contributions of bloggers to the Huffington Post (as is the case in his article), this argument does not hold together in this case study for two reasons: firstly, the work is independent and, secondly, the apparent cause of the low income is completely unrelated to wages (these are not wages at all; they are sales). Instead, the cause appears to be a macroeconomic consequence of systemic oversupply because of lowering barriers to entry and an increased perception of the work’s desirability. In other words, these depressed wages are a feature of capitalist markets for creative products in any industry with such low entry barriers and extensive competition. The ability to make decisions
plays no real part in this at the micro-level. It is not as though workers are able to demand more sales, and who exactly could they demand them from if they wanted to?

**Conclusion**

At the heart of this dissertation is the professional creative laborer, and it might be compelling to view labor in exclusively economic terms. Money does improve the capacity workers have to make decisions about their work generally, though far more so for independents than for employees. Financial stability and a wide range of available resources can make it increasingly empowering for a worker to leave a job, to seek unstable work, or to simply stay unemployed until more preferable and desirable work arrives. For independents especially, financial resources can be hugely significant in paying for staff, services, and training. For these reasons, considerations of financial capital are important to discussions of worker control in performing labor. However, the creative industries as a cluster are not unified in economic terms, and this has serious consequences for discussions of this control across different kinds of labor. The more desirable the labor is—as is typically the case for cultural industries compared to non-cultural ones—the more competition for equal or better paying work there will be, meaning a tendency for lower wages for competing workers. The addition of people willing to work for non-monetary reasons further depresses the value of products and labor as a bloc, increasing competition and the income inequality down the long tail of product and labor. The more desirable something is to do and the easier a product is to produce, the harder it is for any given project to earn back its cost.

With every industry being different in terms of financial compensation, making any cohesive claims about the relationship between financial capital and worker decision
making in the creative industries is inherently difficult. What is more clear is that there are substantial differences between the opportunities experienced by people who are self-employed and those who are not, between those in highly desirable jobs and those in less desirable ones. At the core of lower incomes in cultural labor is a macroeconomic feature of highly desirable work and the desire to produce beyond demand; solutions that more effectively and equitably divide money through an institution may apply more effectively at the level of the firm and less so for individual workers and small studios who have no real means of spreading that wealth. Unionization is an effective strategy in some cases—and the emergence of the Freelancers Union indicates that autonomy does not automatically mean a lack of social cohesion and power (see more on this subject in chapter 5). However, unions do require funds from workers, and in many creative independent sectors, the incomes are too low to sustain membership. Perhaps the best opportunity is for those who “win the lottery” in their respective industry to more directly pave the way for future success by subsidizing new projects. If nothing is done, the middle of the market will bottom out or be forced out of independent work into contracting, but given the low entry barrier to the work, it is safe to say that, at least for independent cultural producers, they have the agency to continue producing and will likely keep doing so.
CHAPTER 4: Time and Place

In this chapter, focus shifts to the context of labor and the separation between work and not-work. Discourse of the work/life divide takes for its center (fairly or not) the post-war condition of the five day work week and eight hour work day from nine to five, characteristic of “employment of unionized male industrial workers” (Ross, 2013, p. 26). What scholars suggest is that the new creative labor landscape is characterized both by a precarious and increasingly expanded work day as well as by an expansion of the workplace beyond the walls of an office or factory floor and into the worker’s home and further through networked technology. Meanwhile, this supposed dissolution of the work/life divide is simultaneously characterized as “hyperexploitation” by some (Lazzarato, 1996, p. 136) whereas others see the intrusion of work into traditionally non-work time and space as a liberation from impracticalities of the traditional workplace (Leadbeater and Oakley, 1999, p. 24; Florida, 2012, p. 129). The stakes of the argument are substantial: either the expansion of work indicates a diminution of worker control over work-related decisions and increasing exploitation of work or it indicates the very opposite, that workers are exercising their agency and authority to work when and where they so choose, even if, counter-intuitively, this comes to benefit the employer.

To evaluate the complex issue of the work/life divide in the creative industries requires unpacking two premises. The first is that the work day for creative laborers as a bloc is typically more precarious, expansive, and unpredictable than it had been prior to the rise of network society and that this condition is either the result of or an impediment to the exercising of worker decision making capacity to work when they choose. The second is that workers are increasingly working beyond the space of the traditional
workplace so that work can be done in any place, just as it can occur at any time, and that this again is either the result of workers exercising control or it is depleting that control. What the data suggests is that, indeed, creative workers increasingly tend to work longer hours per week and have less predictable schedules in network society, and these workers increasingly work outside of traditional work places and inside new ones, such as cafes and home offices. This said, the motivations behind these changes are complex and require their own investigation.

Data from the case study of the independent game making community in New York City along with other scholarship reveals a complex of components within the labor assemblage that motivates or forces certain workers into working longer and in more places. This includes material factors that facilitate the expanded work day (particularly computers, the internet, and smart phones) but also expressive components of the assemblage like the specific demands of the job, personal preferences for certain working conditions, the working hours of collaborators, the needs of significant others and children, personal health, strategic front-loading of labor, and a worker’s or employer’s ideology of work ethics. The variety of potential expressive and material factors that can motivate decisions regarding work hours and location reveal legitimate and practical reasons for workers to deliberately expand the work day, especially in cases of independent workers, alongside ideological pressures from both themselves and employers. This calls into question suggestions that any such breakdown in the work/life divide indicates exploitation by capital or self-exploitation, though it contextualizes how employers might take advantage of a worker’s preexisting predilection towards working
more. The diverse causes of the increased expanse of work demand a nuanced and precise policy approach to ensuring a healthy and productive workforce.

**Work hours: free will or exploitation?**

At the center of the issue of the work/life divide are a few questions: firstly, how long are workers in creative professions actually working? While one would anticipate a traditional work week of 40 hours, data from the Organization for Economic Co-operation and Development ([OECD], 2016) claims that from 2000 to 2014, the average usual weekly hours worked on a worker’s main job in the United States constitute between 38.1 to 38.9 hours a week. For full-time workers, the number rises to between 41.3 and 41.9 hours a week. Data from the Bureau of Labor Statistics (BLS) suggests that employed people work on average 7.6 hours per work day (though, they also note that people work on average 8 hours on weekdays and 5.6 on weekends; [BLS], 2016a). At the same time, different statistics from the BLS (2015b) seem to contradict this figure by a considerable margin: in describing what Americans do every day, the BLS suggests that Americans statistically work on average less than 5 hours a day\(^\text{10}\). This certainly points to a confusing use of statistics; it is unclear according to the second BLS statistic whether or not that number includes those out of work, which the first set excludes. It is likewise unclear what constitutes work according to any of these statistics. Does it include transportation to and from work? Does it include time at work that is not spent working? The data likewise does not provide distinctions for work hours by industry in the same precision that the BLS does for annual income.

---

\(^{10}\) The data suggests that the number of work hours per day is much less than five per day. The data states people between ages 35 to 44 work an average of 4.99 hours per day, but workers in the age brackets younger and older work less per day than this.
In addition to confusing and seemingly contradictory descriptions of the average work day, the fact that creative work is often mental means an additional complication in measuring work time. Florida (2012) explains that regardless of the impact of technology on working new times and spaces (its own issue, of course), “creative work tends to follow you around… in the sense that it inhabits your head” (p. 127). Florida explains that at the end of the work day, there may be work issues left unsolved or decisions still to be made; these things “may not occupy the foreground of your time off, but they linger in the background” (ibid). Consequently, he asks, “[W]ould you bill the time to a client? Would you record it as work in a time diary?” (ibid). To that point, have the statistics on the amount of work people do accounted for this semi-uncontrollable mental labor that follows workers home? It seems impossible to quantify that even if it did attempt to account for it.

The relative absence of data quantifying work time makes evaluating or situating these statistics complicated, but responses from the New York City independent game making community point to a diverse and nuanced landscape of work hours that appear to defy simple explanations of the lengthening work day. Broadly speaking, people working on games full time, both independently and as employees, report working on their primary game job at least eight hours a day, five days a week. Generally, people report beginning work at 10 or 10:30 am and ending (“on the books,” as X12 admits) at 6 or 6:30 pm. This generally corresponds with the work hours for peoples’ day jobs outside of games as well; X03, X10, X19, X20 and X21 describe their day jobs as 40 hours work weeks, mostly 10-6 as well. There are a few independent developers with less regimented schedules, though; X17 reports that he might work from noon to 5pm or until 2am,
anywhere from two to fifteen hours in a day, and X15 reports working at nearly all times, from waking up to lunch, then from lunch to dinner. From this basic full-time 40 hour work week, full-time game makers typically report working longer by varying amounts. X01 might work events two nights a week in addition to the typical 40 hours; X04 reports working typically from 10 to 7 or 7:30; X06 might be “in the zone” while coding and stay an hour late after the end of the work day, though there is no pressure from his boss to do so; X08 explains he tries to work 9-5, but he might work after dinner when his daughter goes to sleep until 7pm. X12 describes devoting some of the largest amounts of time to single projects: he describes jobs in which he might work from 10am to 11pm, another from 3pm to 7am, and at his current job for a AAA developer, his “on the books” hours are 10-6, but he “volunteers” to work even later. He describes wanting to work even longer, but the company will not allow it because of liability: “Basically, they turn off the lights at 10 or 11—‘Just go home. We’re not letting you stay any longer.’” He proceeds to explain, “As an indie, you’d never see that. An indie developer never closes.”

X12’s assessment is partially right, given how commonly full-time independents bend the length of their work days, but it is especially accurate for workers who make games part time or work on multiple projects simultaneously. Unlike most full-timers who focus work at the center of the day from 10-6 on weekdays, part-timers work much more varied hours in addition to external full-time jobs. For some, the additional time is relatively small: X21, for example, says he tries to work at least one hour a day, and X03 tries to work on games when he wakes up in the morning before work, about an hour or so a day. X10 attempts to put in a few hours of work on games at the end of his normal work day and 3-4 hours on weekends, and X20 tries to fit in between 16-20 hours a week,
including working extensively on weekends and a few hours at the end of some weekdays after work. X09 fits in a couple hours of personal work at night, in addition to three hours a day at a freelance job after a full eight hours (or more) at her full-time job (roughly across all three jobs, this is more than 12 hours a day). In spite of the variability of hours people work on games, work days of longer than 8 hours are the norm, which corroborates the first component of the criticism of the diminishing work/life divide, at least for this subset of workers.

**Crunch time in the games industry**

The video game industry has long featured its own particular and long demonized practice of extensive work hours called “crunch time.” How long crunch time has been a part of game development is unclear, but criticism of it ramps up considerably in the early to mid-2000’s. The 2000 *Scratchware Manifesto* specifically attacks crunch time: “The great thing is, if people in the industry were paid hourly, crunch time would be a clear violation of even the miserable US labor laws,” one contributor to the manifesto describes; “Mmmmmm, I love working 18 hours with one break. Sign me up, oh dark lords of capitalism!” A 2003 International Game Developers Association (IGDA) whitepaper on “Best Practices in Resource Management” (Murguia and Urquhart, 2003) refers to crunch and proposes strategies for minimizing it, but the information is scant. 2004 sees a dramatic rise in attention to extreme work hours in the mainstream industry. Early in 2004, the IGDA surveyed its members on quality of life and published a whitepaper highly critical of “poor quality of life conditions” and the “crunch cycle” ([IGDA], 2004, p. 5). Later that year, ea_spouse published a highly inflammatory post on Livejournal detailing the personal hell her husband endured working for EA, including
“twelve hours [work days] six days a week, 9am to 10pm” (ea_spouse, 2004). Most scholarship concerned with crunch time and long hours in the games industry draws primarily from these 2004 accounts and one more recent account by spouses of Rockstar employees (Rockstar Spouse, 2010) with similar complaints (see Kerr, 2006; Dyer-Witheford and de Peuter, 2009; Peticca-Harris et al, 2015). O’Donnell (2014) cites an interview that describes the work culture at a studio as “a culture of overtime” (p. 136).

What may be surprising is that crunch time remains a feature of game development even for independents in New York City. Workers interviewed do not report having such egregiously terrible hours as reported by both ea_spouse and the Rockstar Spouses (at least, not for such consistent amounts of time), but they do still report having periods of unusually extended work hours. X20, for example, while on leave from his day job, spent around two weeks working 12-14 hours a day to get a game ready for a show. X19 reports having three days of “extended hours” maybe including one weekend day, but this was only for one project. X11 mentions working “double the amount of hours that I would usually work” at his part-time game design job for around two weeks prior to the game’s release. X08 similarly worked extensive hours two weeks prior to the release of one of the games his company was publishing. Out of the twenty one interviewees, sixteen report having experienced crunch time (though two of them explain that this was exclusively for school projects and not subsequent independent games). The intensity of the crunch time varies widely from X12 working overnight and X11 working double time to X18 working perhaps an hour later than usual. There is not significant difference in experiences between workers who are employed and those who are self-employed, those who are full-time and those who make games part-time.
Workday length in the broader creative industries

It is worth acknowledging as well that people working full-time at non-game jobs report relatively stable 40 hour work weeks. X03 points this out explicitly, but he notes how he is glad to work for a company that does not demand 60 hour weeks, supporting the claims that some companies do encourage or demand more extensive work days. Accounts from other industries further support this claim, especially in medicine, law, and technology. For medical professionals, the issue is a matter of public safety, given the risk of error driven by fatigue from both extended periods of work and excessive work hours per week (see Ferguson et al, 2010, and Rosta and Aasland, 2014). In the legal profession, of concern is the way an established firm can exploit salaried employees by saddling them with extreme workloads that necessarily demand excessive work hours (see Campbell and Charlesworth, 2012, p. 91). The tech industry, especially major firms in Silicon Valley, has been routinely criticized for asking superhuman work hours of employees (see Kantor & Streitfield, 2015, and Cooper, 2015). There is strong evidence within these professions to support the argument for the longer work day, but these alone do not compose the entirety of the creative labor force. The fact that workers in the New York tech industry working part time on games report 40 hour weeks indicates that there are other reasons for particular industries, or industries in specific geographic spaces like tech companies in Silicon Valley, to pressure workers into consistent longer hours. It is not universally new workers being mistreated and established ones working less (Ferguson et al, 2010, report similar work hour patterns in doctors regardless of seniority, for example), nor is it necessarily the case that all creative industries have equal work hour expectations (again, none of the people interviewed from the case study report
working the same kinds of hours that Amazon is accused of requiring). What needs to be addressed are the motivations for work hours and worker decision making in regards to the length and placement of the work day.

**Workday predictability and the 24-hour work day**

Evidence supporting the idea that creative workers work longer appears generally true, though not consistently so. To proceed with evaluating the status of the work/life divide and how creative worker decision making is implicated in it, the second question emerges: how predictable and stable are work hours for creative laborers? Of concern is the idea that not only do workers expand the work day into hours that previously belonged to life outside of work, but that the unpredictability of work hours (regardless of the length of the work day) makes the specter of potential work loom over time where no work is being done, converting the day into a permanent work day. Do workers report less predictable schedules, and does that unpredictability contribute to the feeling of a 24-hour work day?

Within the independent game making community in New York City, work hours are highly variable even for workers in similar working arrangements. Full-time employees at game studios report the most stable and predictable hours\(^\text{11}\). X04, X06, X09, X18, X19 and X21 report predictable hours, typically a 10-6 work day that is predictably longer when deadlines are approaching. That said, this is not universal for all full-time employees: X12, both at his AAA job and at past independent contracting jobs, reports very erratic hours during the day and potentially overnight. Predictability is also lower for most full-time game makers who run their studios and thus make, or help to

\(^{11}\) The accuracy of this data is compromised because it is exclusively self-reported and not confirmed by any other metrics or diaries.
make, the decisions regarding the work schedules for themselves and others. X13 works from 10-6 but also reports working nights and weekends to prepare for the following week, depending on what needs to be done. X01 co-manages a studio, but his personal work hours might expand into the night or onto the weekends. X05 who is in a similar situation describes having no really consistent work hours at all, explaining, “It really depends on the day. On a long day, I may work even 14 hours or whatever. On a short day, I might only work 3 or 4 hours.” X15 also describes how his work day has no real definition, and he may simply work whenever he is awake. X08 describes having worked that way in the past, but as he has gotten older and started a family, he has decided to make his hours more consistent. On the other hand, X02 who helped determine the work hours for the workers at the studio she works at describes a very stable schedule of work hours.

Unsurprisingly, part-time game makers report unpredictable hours more so than most full-time makers. X03 reports trying to work on game projects in the morning before work, but there is no real consistency to this. X10 describes trying to fit game work at the end of the work day or on the weekend but not at predictable times. X14 too will fit game work in where he can, sometimes working late into the night after finishing his primary job (which means, because he is an independent contractor, he does not have regular hours either; his hours depend on the amount of work demanded for a given project). X16 does the same, attempting to fit game making into the weekends without defined times, as does X20 and X21. Certainly, some workers have patterns, so these reported work hours are not entirely unpredictable: X03 prefers mornings whereas X14 prefers nights. Still, the hours are all self-determined and lack set times.
The unpredictability that characterizes the independent game makers in New York City is similar to descriptions of unpredictability in some other creative professions in many respects. Lee (2012) describes workers in Britain’s independent television industry working non-stop and thinking about the next contract job in the middle of the current one (p. 484). Pratt (2000) describes contractors in new media professions as having “bulimic careers” characterized by periods of non-stop work, followed by breaks until the next project arrives (p. 432). The same claims appear repeatedly in other sources (see Perrons, 2003; James, 2014; Gill, 2002). What this scholarship focuses on is contract labor, which is an issue because it does not adequately address the full range of occupational arrangements in all creative industries. Contract labor is common in the independent game industry in New York City, but it is not the only arrangement; there are full-time employees that describe the same need to find new work that the contractors do, and there are fully independent operations making their own work for themselves (something that the nature of their work—that it creates a marketable product—allows people in this occupation to do that others, like Lee’s television workers, may not).

Insufficient evidence exists to describe the predictability or unpredictability of hours for independent workers working on their own projects to the extent that this has been done for contractors and, occasionally, salaried positions.

**The widening world of work**

Evidence thus far supports claims that creative workers are experiencing longer and less predictable work hours as a bloc. The second half of the work/life divide question concerns the places people work. Criticism suggests that work does not take place in a stable office environment but that it persists outside of the office in other
spaces and in the home, transforming the world into an all-encompassing workplace. Reports both from the independent game making community in New York City and accounts from creative industries generally support that position.

In general, the independent game making community in New York City reports working in a few different kinds of locations. Some still work in office spaces. X02, for example, mentions working at the office exclusively (though, as a freelancer without an office, she previously worked in a few different non-office places). X06 too works exclusively from his office space. Others with access to offices may work at them sometimes (like X05 and X11) or most of the times (like X13, X09, and X19), but X01, who technically has access to office space, describes never using it. A popular alternative to office space, especially for those without access to it, is a café or another internet-connected place close to home. When X02 was freelancing between full-time jobs, she describes going to coffee shops in order to work, as does X07, X08, X01, and a wide swath of others. Sometimes, interviewees report working from home, sometimes with a home office, and often times working from home in tandem with working at other locations. People also work at the apartments of collaborators. Other times, workers return to their university to work because they live nearby, even though they are no longer students there. X11 reports doing work on the subway as well. Given that part of the labor of independent game making is also typically participating in local social and professional events, it is likewise appropriate to say work extends into these event spaces as well.

---

12 The locations in question concern daily, typical work. It does not include where people report working for special events and at conventions. Though those are technically places people are working, it does not fit the spirit of the work/life divide question, which concerns typical daily work practices.
In other industries, there are similar patterns of work outside of the office. Ross (2013) refers to “distributed workspaces” to describe how work and leisure come to overlap with workers laboring at internet-connected coffee shops, home, or other public spaces (p. 20). Much like how independent game developers consider participating in social events part of work, McRobbie (2002) discusses this ideology as well by pointing out a professor who “reputedly encouraged the students to consider the partying and networking they had to do to promote their art as a vital part of the work, not as something separate” (p. 520). Though she does not point to specific kinds of places such workers might now be working, McRobbie describes how the creative sector (in her case, the cultural sector of the creative industries) experiences a “multi-sited” workplace, if it can be characterized as a workplace at all (p. 522). Leadbeater and Miller (2004) in discussing pro-am groups (which, admittedly, could describe both experienced hobbyists as well as early professionals) relying less on physical club spaces and more so on the internet and special interest media as a distributed collaborative space (p. 45). One indication of how prominent the distributed workplace concept is can be the way that large firms have come to attempt to recapture and refocus the workforce back into the office. Florida (2012), for instance, discusses how firms like Google and other tech companies attempt to design offices and large campuses to ensure workers stay at work—a practice necessitated by the existence of distributed workplaces. Some companies have turned to prohibiting work-from-home policies entirely (Tkaczyk, 2013)

**Motivations for the breakdown of work/life balance**

Data from around the creative industries supports claims of a lengthening workday and expanding distributed workplace that can at times be greatly unpredictable.
Nevertheless, the fact that hours are longer and more variable or that work takes place increasingly outside of the dedicated office does not fully explain the motivations behind these changes, nor does it comment whatsoever on the decisions workers are able to make in regards to this condition. To approach this matter, one must determine what makes possible, motivates, or encourages workers to adopt seemingly “worse” hours in some cases—especially given incidents of others working more stable and modest hours—and why workers end up working outside of traditional work spaces. What evidence reveals is a complicated web of interconnected conditions, some practical and others ideological, that affect worker decision making capacity differently depending on their jobs, personal circumstances, and their relationships to firms.

**Networked technology and collaboration**

One of the most essential material components driving the expanded work day and workplace is the widespread availability of and dependence on interconnected network technology that characterize network society. Florida (2012) and others (Ross, 2013; Jarvis and Pratt, 2006; de Peuter, 2014; Derks and Bakker, 2014) point specifically to “smart phones and laptops” that allow “our work… to follow us wherever [and]… whenever we are” (Florida, 2012, p.127). Every iteration of the technology brings the possibility of working closer to the body: email brings work messages immediately into the home, internet-connected devices such as laptops bring those devices outside of the home, and smart phones and tablets bring that into pockets through the entire day and overnight. X09 describes the availability of her phone as intrusive: “Work doesn’t stop just because you go home. I’m always trying to just turn the phone off and not answer it because not all of it is important.” X19 too describes this tension caused by getting
pinged by the messaging service her team uses to communicate, even outside of the office and after hours.

This recent step into the distributed workplace and expanded work spurred by smart phones and the internet did not pop out of nothing, of course. Nippert-Eng (1996), for instance, reminds that if an employer or coworker knew someone’s landline phone number, the home could always be a place for work beyond typical hours as well. That said, the contemporary emphasis in the literature on cell phones and computers is justified in that these devices facilitate more intricate work, synchronously and asynchronously, and the devices can follow someone around almost anywhere, unlike a landline phone. Worth noting is that the availability of technology facilitating work in distributed times and spaces is not an indication in any case to the desirability of that work; while X19 and X09 complain about phones being intrusive which suggests they feel the technology limiting their ability to decide when not to work, X11 counters by saying that he uses his laptop to learn Unity on long subway rides because that is when he has time to do it. X11’s case demonstrates that this technology provides the material possibility for workers to work when and where they want; it is not exclusively a control mechanism pushing labor into undesirable time and space.

Connected with the availability of tools that facilitate the ability for a worker to perform tasks outside of the office and office hours, technology also facilitates collaboration across distance. Because of the possibility of synchronous distance communication, workers may also be motivated to work certain hours based on the availability of collaborators. This is an essential issue in regards to offshore collaboration with other global workers and branches. X01 describes working 10-6 instead of earlier in
order to work more hours with collaborators on the West Coast who are three hours
behind. X19 describes how important it is to her that her company’s offshore developers,
some of whom are in other states in the US and others in the Philippines and El Salvador,
work the same hours as the rest of the New York office: she explains having those
outside teams working off-hours “can eat a lot of time,” and that “communication with
them and what hours they work[,] it was really important to me that they work our
hours.” X19 also describes a different kind of scenario that demonstrates a similar point.
For one of her company’s projects, the team had to produce a game as a tie-in to a weekly
reality program. Because the show producers provided assets to the team close to the
program’s airing, and because workers needed to ensure the game operated well at show
time, she and others on the team would work late on the air date to accommodate the
needs of the client. What drives the work hours in this case is not the amount of work, per
se, but the availability of necessary assets and labor tied directly to the program airing,
which necessarily take place after normal hours.

Given the fact that networked technology can allow workers to work from
anywhere at any time, it is worth keeping in mind that workers are also motivated to
work in person—even to perform work on computers. X10, for instance, describes how
face-to-face collaboration provides faster feedback, the ability to see collaborators’ work,
and the simple pleasure of company. X16 likewise explains, “I find it easier and it’s more
motivating when everybody is sitting in the same room and working.” It is unclear if
face-to-face communication provides actual efficiency benefits compared to digital
collaboration: as described in Maznevski and Chudoba (2000), studies comparing the two
collaborative approaches yield results suggesting that face-to-face is more productive,
equally productive, and less productive than virtual interaction (p. 474). They note, however, that studies suggest the complexity of the work and how closely coworkers share a common interpretive context affect how well mediated communication is likely to work, with more complex work and dissimilar interpretive context favoring face-to-face over the use of less rich technology (ibid). All of this, naturally, applies only to work that can possibly be conducted virtually; a writer can produce a screenplay for a Hollywood production from New York, but the gaffers will only be able to lay the tape down on the physical set itself and the actors can only work from the set as well\(^\text{13}\).

Given the motivation to collaborate synchronously (and in spite of perhaps losing work time to do so), decision making capacity regarding worker hours and work locations can often be influenced by the availability of local collaborators as well. X01, for example, helps organize people for a testing event that takes place on a certain night of the week because, he explains, “one of the guys on the team has a day job and that’s the only time we can find time together, so Tuesday’s I’ll tend to take the afternoon off because I know I’ll have a busy night.” X10 likewise chooses to work most on the weekends because, “We all have day jobs, so we’re all finding time for this in additional to all the other stuff that we do.” While this appears to be a motivating factor for independents who do not depend on an authoritarian agent determining labor time and location, local collaboration seems largely irrelevant to most employees’ decision making capacities. This is rational, given that an employee’s collaborators likely have designated work time and space just as they (probably) do. Accordingly, if a worker wants to have hours compatible with coworkers, this means adopting traditional hours and a traditional

\(^{13}\) Actors may not need to be on the same set as each other, but they will necessarily need to be on some kind of set for the performance to be mechanically captured.
location (one might argue that workers are motivated to work standard office hours if only for these collaborative reasons). The motivation to find time and space to work matters primarily to unfixed working relationships, and thus it matters most to independents more than employees with typical synchronous work arrangements.

**Work demands**

Networked technology facilitates variable work hours and spaces, and collaboration can likewise affect worker decision making capacity to select arrangements compatible with coworkers. One other major influence on decisions regarding worker hours and location are scheduled events, deadlines and conferences around which work may be planned for strategic purposes. Because each industry has its own network of events, and each event may be variably important to different workers in that industry, this component of the labor assemblage’s effect on decision making capacity is highly variable. That said, in certain industries, time-specific work may greatly contribute to the structure of work, including anticipated and even desirable overtime.

The independent game making community in New York City demonstrates this point extensively, with self-established deadlines constructed around forecasted events motivating workers to lengthen hours and work outside of the office. X21, for example, describes wanting to get a game ready to show at a local expo. In order to have the game show-ready, he explains that he made a specific effort to talk everyday with his partner which he previously was not doing. Working together more often was important to him because, he explains, “We wanted to push to get a bunch of stuff done for that, so we thought that talking everyday would be helpful.” X20 explains having a similar situation when preparing to submit his game for an award. Since he was not working full-time at
that point, he chose to devote 12-14 hours a day for around two weeks in order to ensure the game was “what I actually wanted to present.” He did not technically need the game to be finished, but he explains, “I wanted it to be fairly functional.” This is in spite of deliberately trying to avoid working that much. These experiences are nearly universal amongst game makers for personal projects; in order to show games at high profile events that will provide access to playtesters, press, and other feedback, games often need extensive polish and adjustments to ensure that they are “show-ready.” Knowing that deadlines are fixed because the event dates and submission deadlines are out of their control, what makers do is exercise their decision making authority by deliberately focusing extra work time and energy on projects as they come closer to the deadlines. This is likewise the case for client-set deadlines as well, as X01 and X05 describe. To an extent, deadlines set by independents around events are only marginally more open to change than those set arbitrarily by clients; the deadlines have the same motivating pressure, in the sense that the deadline is set and cannot be missed, only that not missing the deadline is perhaps more important for client work than for events and submissions. Independent workers have the capacity to put off the release until the next self-imposed deadline, for example.

What the community’s practices in response to deadlines demonstrate is a rational and pragmatic exercising of decision making capacity by extending hours and work space in response to fixed demands of the work that are, in some cases to a large extent, under the worker’s control. That is not to say that deadlines are always rational or humane, even when an independent worker makes that deadline personally. X04 describes, for example, how he and his partner created a deadline to produce their first game and how it
contributed to unhealthy work habits. Unlike other instances in which he and his partner set deadlines around submitting and showing at events, the deadline to complete this game was essentially arbitrary. He explains feeling pressured because he had been working full-time as an independent without earning any money for a long time and he became concerned about his finances. Pressuring himself to complete it by an arbitrary date felt at the time a good way to move on. In the end, the game was financially unsuccessful, and he explains that it may have been a bad decision to push so hard simply to get it done. X08 likewise has a similar story of working excessively to meet a self-prescribed arbitrary deadline:

I’d say actually, there was this one time, I couldn’t remember… I knew I hadn’t slept that night. It was 6 am and I knew I hadn’t slept that night, but couldn’t remember if I had slept the night before and I remember feeling like I had to keep going, I had to keep going. I couldn’t delay the project, I had to keep going, so I would be absolutely exhausted and I would make stupid mistake after stupid mistake because I was so tired. But I for some reason thought this is how it had to be. Then it came out. When the game was finally done, I just crashed. For like a week, I didn’t leave my apartment, I was so wrecked and this was for a small, tiny project…. You wouldn’t believe I nearly killed myself over it. I was grabbing takeout to finish it. You can’t live like that. You just can’t. So I learned very fast not to continue that lifestyle.

These kinds of conditions—excessive work leading to physical and mental depletion—are typically associated with highly restrictive deadlines by clients or employers in and outside of games. X15 describes conflicted feelings but being both motivated and drained by deadlines coming from his boss at a tech firm, and X12 describes the experience as similar between being an independent and a AAA worker: if an event is coming, “we have no choice but to work along with that schedule.”

These conditions are typically branded exploitative (see Dyer-Witheford & de Peuter, 2009), and the reason for this seems self-explanatory. Workers are attempting to meet unreasonable deadlines for no additional pay, perhaps for reasons they do not
understand and deadlines they have no part in shaping. This is a common refrain in regards to major Silicon Valley firms in particular. In a New York Times exposé on Amazon’s management practices, Kantor and Streitfeld (2015) highlight unreasonable expectations imposed on workers: “emails arrive past midnight, followed by text messages asking why they were not answered,” and “some workers who suffered from cancer, miscarriages and other personal crises said they had been evaluated unfairly or edged out rather than given time to recover.” They quote one worker who explains, “One time I didn’t sleep for four days straight.” Another profile of Silicon Valley work culture (Cooper, 2013) describes the expectation of a minimum 55-60 hour work-week, people never seeing significant others, and describing “balance” with air quotes. Coupled with aggressive worker evaluation structures, conforming to these conditions is described in both articles as preconditions to employment.

There are different ways to consider these hours in regards to other work arrangements, however. As X13 explains, while systematically abusive deadlines established by a more senior authority may be a cause for these conditions, another issue may be poor project management—an explanation that more accurately accounts for the poor conditions experienced by X04 and X08 who worked entirely as independents and set deadlines by themselves around no particular external events. X13 describes being on both sides of the issue. At the start of his career, he worked as a low-level employee at a AAA company where deadlines were strict, and if a project was late, he says, “you were required 6 days a week, yet you usually ended up working 7 days a week.” Work would be around 12 hours a day, and he reports, “I think the record holder for me personally was being at [the studio] for 4 days in a row without going home. And someone beat that
record. Someone had an 80 hour work week, and he was the reason they took away time and a half.” He attributes these strict deadlines which contributed to such poor hours and conditions in no small measure to the company’s reliance on the Waterfall project management methodology. Because Waterfall does not divide projects into manageable pieces, as the Agile methodology (which he now uses in his role as a producer) does\(^{14}\), it becomes easy to lose track of progress and for new work to be constantly added to the project without considering the effect that might have on the deadline. In the end, all of the extra work crashes down at the deadline, contributing to the extensive hours X13 describes. What is significant is how X13 describes being able to avoid this problem by using more effective project management. Now that he is in the position within studios to directly set deadlines and divide the work across workers and teams, X13 describes approaches he takes to avoid setting abusive deadlines. He says, “So, say for instance, if I’m in charge of planning the schedule for a game, and for the most part as a producer, on my own time I am, I can account for when I think there’s going to be a crunch and maybe extend [the deadline] by another month if allowed.” He also describes avoiding overscoping by making sure other agents, like a marketing department that wants assets from artists, adhere to procedure to make sure the most important work is done first and people are not forced to do more than has been planned. If crunch occurs, it can be predicted and made more manageable through proper planning. Given such a situation, it may be possible to blame poor hours on bad planning and not merely exploitative taskmasters, though the fact that poor planning can contribute to poor hours does not excuse authoritative agents of their obligations to properly scope and plan projects.

\(^{14}\) See details in Appendix B
Personal preference

Certainly, there are plenty of outside factors that affect a worker’s decision making capacity in regards to extending the work day and working outside of the office. At the same time, there is a counter-intuitive preference some workers have for doing so. Ross (2013) notes that workers might not experience these conditions as exploitation (p. 17), but to what extent is the false consciousness self-exploitation description adequate for these workers? A number of studies point to creative work as inherently pleasurable or becoming leisure time, and workers describe having certain preferences for working in other locations for control and convenience. Data suggests that there may be practical and largely non-ideological expressive components encouraging workers to deliberately work longer and in more places, diminishing the division between work and life for what are perceived as otherwise productive reasons.

The idea that workers might prefer to work outside the office is hardly a new idea; consider the stigma over cubical farms found in the film Office Space (1999) or the attitudes expressed in countless Dilbert cartoon strips. In reality, workers often express specific and practical reasons they might prefer to, and decide to, work outside of a dedicated office, if they have access to one. One of those reasons is control of the space. X01, for example, likes working at home instead of a small office his studio rents because “it’s quiet and I have control over the environment.” X03 cites the same reason for choosing to work at home, saying, “It’s a nice quiet space.” X15 describes liking the ability to give himself the best physical setup: “I just got a nice chair, a good setup where I have one computer for music or for podcast, video that is something I’m listening to while I’m working on another machine.” X16 speaks to this issue from the opposite
direction; in her case, she chooses not to work from home partly because she prefers working with her partners but also because she has a roommate who would be disturbed by them working in her apartment. It is the absence of control over the space engendered by the roommate’s shared authority over her living space that makes working from home less appealing to X16 than working from her partner’s apartment. This motivation to escape the office to have control over work space is found in other accounts of people working from home as well. Ammons and Markham (2004) note how workers specify disadvantages of the traditional office tied to decision making capacity that working from home alleviates, including having to get dressed up, needing to control the volume of their music, or being able to turn on the television in the background (p. 209). Workers also cite being able to start and stop work more freely, rather than staying at the office arbitrarily when there is nothing to do. More broadly, Perrons (2003) explains, “Entrepreneurs, homeworkers and freelancers can manage their own routines, even if they always cannot control the quantity of work” (p. 73).

There can also be a strong financial incentive affecting decision making capacity to work outside of an office—especially for independent workers who might otherwise need to rent expensive office space. X04 describes this as a primary motivation for his working from home. Unlike many of the other interviewees, X04 works outside of the City in a suburban area where a car is necessary to get anywhere. When he explains why he works from home, he says, “If I had my own car, occasionally I would go to a coffee shop to work… because sometimes, it is nice to get out of the house. Sometimes, but mostly it doesn’t bother me to stay in the house all day.” Because of his distance from the office he is working for, it is too costly for him to come to the office to work. Indeed, his
case indicates that the ability to work from home in part facilitates his having the job in the first place. That said, his account also points out that working from home is as much a financial necessity as it is a desirable work space, in the way others describe. X11 also describes working from home as a financial necessity, rather than an optimal arrangement he might otherwise choose. He explains,

   Why do I like to develop from my house? I think honestly I’d prefer not to develop from my house...I’d like to have a shared space. I’d like to have an office. That would be great. I’d love to have a space I could go work and leave the work there and not take it to my house. I want my house to be a place where I can just rest. That’d be great.

X08 mentions vacillating between getting an office and working from coffee shops or at home without it: “I’ve done the office. I have rented office space twice. The second time, I forgot how much I didn’t like it. It’s like I think I need it, so I get one or one comes available and I just take it, and I never go.” He explains that if he were able to get a permanent space, as opposed to the temporary rental space local independents use more frequently, he might like to work at an office more, but “In Brooklyn, in New York especially, that’s so expensive, so I don’t ever think I will.” The financial incentive to forgo the traditional office architecture that these independent workers discuss is also discussed elsewhere in regards to larger, more established firms looking to cut costs (Bailey & Kurland, 2002; Pink, 2001; Nippert-Eng, 1996; Conlin, 2009). In such cases, workers may be forced to work outside of the office, if only because the job has no office at all. This could be an unfortunate consequence of cost-cutting or a happy coincidence with the worker’s own financial, or other, motivations.

   Another element to consider is how workers feel they work best, even if that means working outside of the traditional workday and in what might appear to be less than ideal workspaces. For example, amongst independent game makers in New York
City, there is a significant variety in decision making capacity regarding schedules. X01 works late sometimes because, he explains, “I like to stay up late. I’ve always kinda done that, and left to my own devices, I just kinda do that, and most of the people that I work with are similar.” In fact, he explains, “If I start before 10 [am], I often can’t get in touch with other people I’m collaborating with since I do work remotely most of the time.” X07 reports feeling the same way about working at night: he explains, “It’s just the most convenient for me, really. It’s the luxury of being able to set my own schedule, that I can work when I feel most productive and most active and most aware.” By contrast, X03 prefers to work at the start of the day: “I try get in an hour or hour and a half done in the morning because I’m freshest then, usually on the weekends.”

This preference is just one expressive component to the larger assemblage that motivates workers to pick when and where they might work. X04, for example, explains that he works in the middle of the day in large part because “this is what I’m used to working… That’s what people do, right?” He says this while subsequently explaining, “It is a little weird, because sometimes I’m a little more efficient working at night, but it’s not like that big of a difference that I don’t want to do it like that.” Pink (2001) draws a similar conclusion, discussing how free agents may work the traditional 9-5 or they may divide their day into more effective chunks according to their needs and desires. One oddity in his research is that a study of two dozen free agents finds that they work on average “seven hours and thirty-seven minutes each workday” (p. 109) which is notably close to the traditional eight-hour day; this clashes with the literature previously discussed that finds creative workers tend to work longer days, though perhaps this can
be explained by the fact that Pink’s account does not completely clarify how many workdays per week his subjects worked.

That said, even if creative workers work longer than eight hours a day or more than five days a week, this does not automatically mean that they have no personal preference for that behavior or that it was not the result of deliberate decision making. While X05 insists on having a stable workday (“I like the fact that I’m on for a certain amount of time and then that’s it, I’m done. It’s business hours. It’s not just all the time.”), someone like X09 prefers to work more than this; she mentions working full time for one company and part-time for two others. She appears to thrive on the work; in discussing a period of time between full-time jobs, she explains, “I found out that I was not a person who could not work.” X12 seems to feel similarly. When he worked as an independent, his hours were out of control—“unhealthy,” he recognizes—but even at a full-time position at a mainstream studio, he explains that he might want to work more than he is required if the company would allow him to do so. It is impossible to say whether or not these are inherent biological personality traits of these workers or if these factors are ideological in origin; X09 works a lot, but she attributes it in part to her upbringing and “Italian Catholic work ethic [that] just makes you feel terrible” when she is not working.

**The needs of others**

Another major factor that affects work arrangement decision making capacity is the worker’s relationship to family, especially children. While the sample of workers in the independent New York City games community includes only one parent, his experiences with time and space in relation to his child reflect some of the trends found in
accounts from other industries. X08 explains, “I’m a dad now and I’ve got a family, so I want to be home and do the family dinner thing and put my daughter to bed. Sometimes if I’m really busy, I’ll work from home after dinner, after bedtime-- my daughter’s bedtime, not mine. Typically I try to stop around 7.” In X08’s case, the freedom of being an independent worker in the creative industries allows him to work both from home and at nearby coffee shops, timed in such a way that he ensures he spends adequate time at home with his wife and daughter. This motivation to work closer to the family, in location and hours, is commonly associated with working mothers in the literature (Pink, 2001, p. 192; Bailey and Kurland, 2002; Fagan, 2001). Nippert-Eng (1996) meanwhile notes the opposite effect, where a worker might choose to avoid coming home in order to get away from the difficulties of marriage or parenthood—leaving for work early and working late and choosing to leave the house rather than stay in. The architecture of the home-office space plays a part in this dynamic: Nippert-Eng explains, “Children and spouses can interrupt us no matter how big our house or apartment. But they must interrupt us if we have too little or inadequate partitioned space” (p. 222).

That said, Pink (2001) points out that this is a condition that some embrace and accept. He refers to “mamapreneurs” and organizations that represent them, quoting one woman who explains, “[W]e don’t have to hide the fact that we have kids. So if we carry on business and they hear my kids in the background or they come over and the kids are running around, it’s what we’re used to” (p. 192). The availability of childcare weighs on this aspect of decision making for workers as well—across the economy, not only for creative workers (see Nippert-Eng, 1996, and Fagan, 2001). Creative workers might distinguish themselves from others who might be more likely to be bound to discrete
workplaces only in that work outside of the office is more mechanically possible and, Florida (2012) suggests, creative work tends to be cyclical, leaving opportunities for a working parent to be more flexible for their children (p. 102). This flexibility may be necessitated by a lack of free or subsidized childcare options offered by an employer or government (see Fagan, 2001, p. 244).

**Personal health**

Plenty of literature specifically on creative labor points to the deleterious effects long hours in particular have on worker physical and emotional health, especially because of stress (Kantor and Streitfeld, 2015; Florida, 2012; Dyer-Witheford and de Peuter, 2009; O’Donnell, 2014; Hewlett and Luce, 2006). Hesmondhalgh and Baker (2011) specifically question the extent to which well-being is achievable within the cultural industries (p. 1). It is interesting to note that in some situations, workers describe actively making decisions to take better care of themselves by changing work hours and locations. For those working at companies with aggressive work cultures, such as those described by Kantor and Streitfeld (2015) or Cooper (2013), this may involve leaving the company for other jobs at less difficult firms or forgoing promotions that demand more work-hours in favor of less intensive positions. Kantor and Streitfeld specifically call attention to lawyers who receive regular calls from Amazon employees about poor treatment, though there is no legal case against the company without evidence of discrimination.

Those who are more independent appear to have more capacity to change their approach to work beyond simply quitting or changing jobs. Some independent game workers in New York City, for example, describe having a breaking point or moment of clarity after which they reduce the number of hours they work. X08 mentions working
excessively as a single man—“I would work whenever I was awake”—but he comes to recognize, “There’s only so long you can sustain that, even if you’re a single guy living alone. There’s only so long you can do that.” After starting a family, he deliberately chooses to work more consistently and for fewer hours. X11 describes a similar situation after coming to a sudden realization about his work habits:

My brain just freaked out. I was just way overworked. I remember I was literally working every hour I was awake, I would be trying to work on something, and I went to church with my wife and I remember they were talking about the Sabbath. On the 7th day, God rested and I remember having this epiphany; I’m working harder than God! I’m working harder than God right now! And I started tearing up and freaking out and I said that to my wife and I was like, something’s gotta change, this can’t go on. So, I ended up stopping doing my business to focus on school, and it was the right decision and I should have never tried to do that. That was dumb. And probably antiproductive.

Following this ordeal, he describes reducing his work hours from every waking hour to 10am to 9pm, and from there further still towards more of a 9-5 schedule, all in service of “trying to balance” finding new work and developing his own projects. For X11, this requires a significant amount of self-control that other workers may not have. To that point, Perrons (2003) notes one worker who found that working from home was a disaster: the worker says, “I worked longer hours at home because it is quite compulsive – you are constantly reminded of work – you could never escape it,” adding, “I would never do it again – not as a business” (p. 86). For this worker, his solution to overworking is to stop working from home, though the unspoken premise is that the worker has the capacity to choose to work elsewhere or the worker can find a job with office space.

**Front-loading**

Workers who discuss changing work arrangements to better their health reflect an idea that overworking is a long-term strategy to work, even if the worker cannot explain exactly why they feel that way. Other workers may be more purposeful in overloading
work early in their careers. Florida (2012) refers to this as “front-loading”: “working excruciatingly long and hard at the outset of their professional lives in the hope that it will pay off in greater income, marketability, and mobility later” (p. 129). Whether this contributes to shorter or less stressful work later in life is unclear. Florida notes young workers aiming for high-level corporate positions choose to work extensively early in their careers and in the “Organizational Age…the time demands grew as they climbed the ladder” (p. 129). On the other hand, he refers to young academics seeking tenure who front-load, but while he describes tenure as providing benefits like a higher salary, a better office, and better access to funds, he does not describe how it may affect day-to-day work hours or intensity. As Florida describes it, front-loading may describe a permanent culture of overwork for other kinds of benefits, but relief of time pressure later may not be one of them.

Florida likewise cites artists, musicians, and others in cultural production who similarly benefit from early investment in their career to get on the star track (p. 130). That said, the relationship to work hours and location to getting on the star track are complicated. As Caves (2002) claims, “Many think Jasper Johns paints better than any other contemporary American artist, but he does not paint faster” (p. 75). In fact, Caves suggests it may be counterproductive for an artist—at least certain kinds of artists who cannot take advantage of mechanical reproduction—to work so extensively at any point in their career, as it may glut the market for their work: he explains, “Do you want to hear the same great singer every night?” (ibid.). As it pertains to the independent game makers in New York City, the issue of work hours and location are less strategic and more short-term in consideration apart from planned crunch time. This is to be expected, if Caves’
assessment is correct, as the work on personal titles benefits from mechanical reproduction. None of the interviewees suggested that they work harder now to better their careers later. Though some did say that the reason they work at all now is to build portfolios, they describe this as a financial decision (producing games for free to more effectively promote themselves) and not one of time investment. Perhaps this is because, unlike (to some extent) tenure for academics or C-level jobs in the corporate sector, there is no direct correlation between work hours and acclaim in the independent games community. Rather, success is a matter of results by whatever means they are achieved, and Caves notes that this unpredictability is inherent to cultural product reception (p. 3). This is complicated because some independent game making work is not subject to mechanical reproduction—those who are intending to be contractors and freelancers depend on the marketability of their skills more than the quality of the product they create, not unlike Caves’ singer. Still, it is unclear how hours devoted to seeking work early contribute to subsequent success in so direct a way as Florida describes for other workers.

**Ideology**

One extensive motivation for worker decision making capacity regarding hours is the intangible presence of ideology promoting the expectations of certain amounts of work. This can affect a worker’s hours and workspace either by the worker internalizing an ideology or by the worker being systematically pressured from an authority that makes demands based on an ideology. Kantor and Streitfeld’s (2015) account of Amazon is replete with examples of both. On the one hand, workers early on “[take] to heart instructions in the leadership principles like ‘never settle’ and ‘no task is beneath them.’”
The best workers call themselves “Amabots,” one with the company and its perspective, contributing to working on projects nonstop, and in one case, a worker “used her own money, without asking for approval, to pay a freelancer in India to enter data so she could get more done.” The article describes one worker having so internalized Amazon’s ideology that her fiancé became concerned, going to Amazon’s campus late at night and repeatedly calling her phone until she agreed to go home. Those workers who are not fully internalizing this work ethic are pressured to do so or forced out through the company’s application of severe metrics on productivity and “business reviews” on a weekly or monthly basis. Other workplaces may have similar ideologies but they may not be so fiercely enforced; O’Donnell (2014), for example, describes how a game studio may unintentionally develop a culture of “college student” work ethics by hiring people who have first begun making games on their own without the structure of an 8-hour work day. Because it is what the workers are already used to, O’Donnell describes “Procrastination and an ‘it will come together in the final hours,’ mentality” common at studios (p. 142).

The presence of ideologies and their impact on making decisions about work time and space can be more personal and less distinct, as participants in the New York City independent games scene demonstrate. X04, for example, says he works when he does in part because “it’s just because those are the hours that people expect me to work.” X05, who runs his studio, insists of working only during business hours—a point which flows downstream to his subordinate. X09 cites her “Italian Catholic ethic” as a driving force, whereas X12 suggests that part of what motivates his hours is the idea that “being a successful indie developer takes an extraordinary amount of discipline” which previously
contributed to his never seeing sunlight for about six months. X13, on the other hand, believes that “it’s unfair to make people lose out on life just because they want to make a game,” so in his capacity to produce projects, he works hard to make people have fair hours (even though, ironically, this causes him to work on weekends). X14 clarifies that he sees work as a matter of productivity, regardless of work-hours: “It’s more about getting the work done and if you get it done, that’s all that matters.”

The fact that ideology impacts creative worker quality of life in these ways, specifically by encouraging workers to expand the work day indefinitely, has raised concerns on the basis that such ideologies conflict with the worker’s best interest. Ross (2008) raises the issue in regards to artists: “Among the other resident dogmas of the creative life is the long-standing equation with suffering… as expressed in the stereotype of the ‘struggling artist’—but there is no natural connection there” (p. 39). Criticism of conditions in the mainstream games industry is similar; Dyer-Witheford and de Peuter (2009) state, “Individual creativity, collective cooperation, and an aura of cool make an attractive package” (p. 55) and O’Donnell (2014) ties quality of life problems in the industry to, in part, the mainstream industry’s emphasis on maintaining secrecy (p. 20). Meanwhile, where Ross criticizes the “struggling artist” concept as a motif that encourages self-exploitation without purpose, Caves (2002) considers the “starving artist” as being directed by a personal preference, suggesting, “A taste for creative work increases the amount of effort supplied by diverting it from humdrum tasks: the ‘starving artist’ syndrome” (p. 4).

The nature of this ideological construct in relation to the desires of the worker significantly affects how scholarship may look at the worker’s relationship to that
ideology, particularly raising the specter of “false consciousness” as an explanation for what appear to be masochistic work practices. Ross (2008) notes this complication particularly, stating, “It would be misguided, then, to dismiss the hunger for ‘free agency’ as a mere product of market ideology; the flexibility it delivers is a response to an authentic employee demand” (p. 38). Ross is specifically noting how a worker’s desire for independence (which subsequently contributes to precariousness and other complications) may be traced to ideology, but that ideology alone is insufficient given that this independence is a legitimate decision made in response to actual conditions.

By extending Ross’s position to other choices made by creative laborers, this chapter has greatly expounded upon this idea, indicating a wide range of practical expressive and material components within the work assemblage that might encourage a worker to change hours and work locations beyond ideology: the nature of the work in relation to networked technology, the specific work the worker must perform, a slew of personal preferences for efficiencies, the needs of family members, personal health, and pursuit of a front-loading strategy in service of the worker’s subsequent career opportunities, among other reasons. Returning to Ross’s statement, whether or not a hegemonic ideology contributes to unproductive or unfair work practices, it is unreasonable to suggest that encouraging a change in ideology alone will lead workers to better manage themselves. Taking that into consideration though, ideology can embed in the broader work assemblage in ways that impact the more practical concerns that may directly affect decision making capacity in regards to work hours and space. Consider how intense meritocratic values embed in corporate evaluation structures at Amazon (Kantor and Streitfeld, 2015) or EA (Dyer-Witheford and de Peuter, 2009), or how a
belief in a “paying your dues” ideology may contribute to front-loading to, in a sense, get to the good part of one’s career.

Conclusion

How then should society respond to the expanding reach of work over time and space in the creative industries? One suggestion, at least for traditional employment, has been to advocate for organized labor. In many industries this has a definite appeal: labor should be treated with respect, and for highly profitable companies to treat workers so poorly while fostering an ideology that encourages workers to blame themselves for not meeting unrealistic goals is unquestionably immoral. Ross (2008) points to examples of union-based action in North America such as IT workers in the WashTech union or adjuncts and graduate students at universities, as well as action by Hollywood writers to fight for a fair share of profits from their work (p. 42). Unionization is a risky endeavor for workers in the United States; Day (2015) notes an instance in which a tech worker lost her job after organizing a union, prompting her to file suit over the claim of wrongful dismissal.

At the same time, the market can itself provide a balancing mechanism; Kantor and Streitfeld (2015) question how viable Amazon’s exploitative strategy of churning through workers can be in the long-term. They cite a consultant who says, “… I don’t know how sustainable it is. You’d have to have a never-ending two-mile line around the block of very qualified people who want to work for you.” Meanwhile, other firms like Twitter and Facebook pick up those workers that Amazon spits out, and the article cites a large number of open jobs at Amazon pointing to negative consequences of its treatment of workers. If the account is to be believed, it would suggest that a company’s reputation
for poor working conditions may force it to change. On the other hand, workers may simply be going from fire back into the frying pan, leaving a bad company for a different, slightly less bad one. It would take a considerable amount of outcry to affect change across an entire industry, though uproar driven by reports of such conditions such as those at Amazon or EA may have some effect in the long run.

The problem is that this particular opposition to long hours applies to these kinds of corporate spaces much more cleanly than others. Consider the example of journalism where the shift towards contingent work, thus creating a larger market of freelance reporters, is prominently driven by macroeconomic factors that have put intense pressures on firms to cut cost. Obviously, there may be room in budgets to work back some of the recent changes and restore some full-time positions, but if the stability of worker hours and the financial stability of the firm are mutually exclusive (which at least in theory is a possibility), then it hardly benefits workers to be working full-time at a company that ends up bankrupt and firing them anyway.

Workers who are more independent likewise do not find themselves in the same kind of position as Amazon’s labor force, given the greater amounts of decision making capacity they may have on setting and changing work conditions to suit their interests. Perhaps this may mean workers need to maintain a stronger sense of balance and that they need to actively work to maintain that. This may come at the expense of productivity in a very direct way—less hours working may mean less work is done—and so the response to work-life balance is in some ways a personal matter, a decision balancing microeconomic concerns with personal health. As members of the independent games community in New York City describe it, creating and maintaining work/life balance is a
learning process and one which involves actively managing a host of considerations. Perhaps it would serve the creative industries broadly to reconsider its increased emphasis on work and renew interest in the importance of the rest of life.
CHAPTER 5: Community

Creative labor has at times been described as lonely and isolating. McRobbie (2002) describes creative workers as increasingly individualized, “disembedded from ties of kinship, community and social class” (p. 518). She describes industries increasingly deregulated and separated from organized labor, stripping workers from collective authority (ibid). At the same time, creative labor is described as being extremely social; Lazzarato (1997) describes immaterial labor as commodifying “a social relationship” through “social labor power that is independent and able to organize both its own work and its relations with business entities” (p. 137). As discussed through previous chapters, creative labor is a combination of workers in various states of independence from firms and each other, but how is community and interconnection implicated in the formation of worker decision making capacity?

Formal and informal communities of practice, from coworkers around the water cooler to labor unions to events held by professional associations, offer tremendous service to workers who have access to them. Access to different kinds of communities differs by the level of independence a worker has; employees have access to financial capital, tools, and socialization through firms that independent workers may lack by virtue of their independence, as do employees have legal right to representation through unions that workers for hire do not. However, where some long-standing service-providing structures of the labor assemblage may have declined in relevance for some, workers across the creative industries remain connected and have access to many of the same opportunities afforded to the traditionally employed. The prominence of professional associations that serve workers that are overwhelmingly non-union is one
such provider of services, as are institutions of higher education that provide not only courses and certifications but networking events, advocacy, and job prospects.

Opportunities for workers come both offline and online through communities on social networking sites, website tools, and recordings of events. Online or off, workers in the creative industry are faced with a wide assortment of informal and formal associations providing opportunities for decision making, and if they do not exist, it can sometimes be a simple process to develop these opportunities, if only at small scale.

Community and interconnectivity

Under consideration in this chapter is how workers are affected by groupings of other workers connected by structures, institutions, laws or traditions. This includes groupings that may be highly restrictive, as in the case of a university whose access is limited to students, teachers, and select others. At the same time, it includes connections as lose and transient as people incidentally interacting with one another because they frequent the same café when they work. Both kinds of interconnections contribute to decision making capacity, but to explore this subject, it is important to establish how best to discuss these kinds of interactivities.

Community, as a term, is an effective means of describing these kinds of interactions in both formal and informal settings. Wellman and Leighton (1979) state that definitions of community typically include “networks of interpersonal ties (outside of the household) which provide sociability and support to members, residence in a common locality, and solidarity sentiments and activities” (p. 365). They note, though, that there is a stronger emphasis on common locality than solidarity (ibid). In contemporary network society, this extends to digital groupings with a common “digital” locality that travels
with people regardless of where they physically may be (see Chayko, 2008, p. 7). Chayko further indicates that community is defined by “a special kind of [shared] identity and culture and regular, patterned social interaction” (p. 6). While the term evokes positive affects like neighborliness, warmth and belonging, Chayko notes that they may not always be “all closely and warmly bonded” (ibid). The emphasis in “community” is shared interaction and common ground.

While this description of community is very grounded in interactivity, community can be thought of as being more loosely distributed, as in the term “community of practice.” Lave and Wenger (1991) define a community of practice as “a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice” (p. 98). In contrast with Wellman and Leighton (1979), Lave and Wenger suggest that their understanding of community in “community of practice” “does not… imply necessarily co-presence, a well-defined, identifiable group, or socially visible boundaries” (ibid). Rather, its core is an “activity system” (ibid) through which collective learning takes place. They cite, as an example, a community of practice in which students learn physics. In that example, the students produce and reproduce knowledge not simply amongst themselves but through the interaction of schooled adults (teachers) who translate the work of physicists into instruction. This is not a closed community of just students and teachers but it involves incoming knowledge by the professional physics community. As such, the community includes other communities and knowledge at the periphery.

In the context of this chapter, both of these concepts are significant.

Conceptualizing interactivity through a grounded interactive concept of community
emphasizes the formation of affect among community members in physical or digital proximity which contributes to social capital (discussed in detail below). The concept of community as in community of practice emphasizes the way in which community encompasses far beyond the local interactors, including far flung participants contributing to a shared body of knowledge that distributes around the network. In using the term “community,” both of these properties can be inferred: the proximity which facilitates production of affect and social capital and the circulation of knowledge through a broader network.

**Informal interaction within communities of creative laborers**

Workers interacting casually with each other in communities of practice can provide meaningful impact on their overall capacity to make work-related decisions, especially by providing social capital which can be leveraged into collaboration or procuring otherwise inaccessible resources. These informal, perhaps accidental, interactions can at times invite skill transfer, and they provide the seed that can motivate the development of informal groups into more formal ones. These interactions and the benefits that can potentially develop from them thrive on physical proximity of workers to each other, but where workers may be physically separated, the internet too can provide this service instead of, or in supplement to, casual communities of practice.

Perhaps the most natural place to find an informal community of workers interacting is at work itself—so-called “talk around the water cooler.” Ferrall (2013) explains, “The proverbial water cooler… is the quintessential safe haven for employees,” (p. 1006) where workers can come together to discuss working conditions in a safe space without reprisal. Ferrall in particular describes how, not unlike more organized union
activity (which will later be discussed), water cooler talk and other forms of nonunion workplace socializing can involve matters related to “wages, hours, or working conditions” (p. 1008), meaning that the opportunity for workers to casually discuss these matters with one another is a valuable component to maintaining fair treatment of workers in the workplace.

This is its own boon to workers, of course, but water cooler talk secondarily serves to improve a worker’s capacity to make decisions about work. Consider, for example, the case of Lilly Ledbetter, a production supervisor for tire manufacturer Goodyear who learned after her retirement that she had been underpaid compared to her male counterparts, and because Ledbetter’s employer was able to conceal the difference in pay, she had no legal recourse. It was not until the subsequent passage of the Ledbetter Act that this problem was addressed, clarifying that Ledbetter and similar employees did have legal options at their disposal. What is pertinent in relation to the general significance of workplace chatter to worker decision making is that water cooler talk is a legally protected space in which such matters can be discussed, as Ferrall (2013) explains; had Ledbetter been able to discuss with coworkers and learn of her unfair pay, she might have gotten the opportunity to act prior to retiring.

One member of the New York City independent community describes how such an interaction with coworkers might result in developing and making such decisions. X13 describes having a bad day in the cafeteria at his mainstream job in the games industry and chatting with a coworker:

I was really bummed out and he was like, “Why you so sad?” and I was like, “I really don’t like what I’m doing in college right now, man. I kind of like what I’m doing here.” He was like “Oh, you should do something about that.” Just casually, and I was like, “You’re right.” I bust out my big cell phone and I call, and this
from his perspective, I go, “Hey Ma, I don’t think I’m going to college anymore. I’m going to do this.” He literally dropped what he was eating because he was like, “What did I do!”

What X13 describes in his conversation and subsequent dropping out of college to continue working is not the kind of labor-related discussion that might have benefitted Ledbetter, but it is significant that X13 took something away from the seemingly minor comment by his coworker. This small addition of outside perspective is the last straw that motivates X13 to take action, and while he may have done so regardless at some point or another, it was through contact at work with a coworker that the decision was ultimately catalyzed.

**Social capital**

As this example demonstrates, there is much more to workplace banter than serious discussions of pay, hours, and working conditions. Casual workplace conversations and ordinary workplace interactions between coworkers provide valuable space for the acquisition of social capital. Putnam et al. (1994) explain, “[S]ocial capital serves as a kind of collateral, but it is available to those who have no access to ordinary credit markets” (p. 169); in that way, it is a resource that a worker can exploit in the absence of other resources to gain access to opportunities otherwise materially inaccessible to him or her. As Nahapiet and Ghoshal (1998) explain, “Two actors may occupy equivalent positions in similar network configurations, but if their personal and emotional attachments to other network members differ, their actions also are likely to differ in important aspects,” such as one worker staying at a company for less pay because he enjoys working with his coworkers (p. 244).

Acquisition of social capital is, naturally, not limited to employees, nor is it necessarily confined to an office. Any social interaction with other workers online or
offline provides space to acquire social capital, meaning creative labor that is more independent is not disassociated from the benefits of social capital associated with water cooler talk. X01 explains, for example, “I’ll come on [to a project] and we’ll meet all the artists, and after that project, everybody goes their own way and you end up staying in touch.” In such a way, even temporary working relationships provide opportunities to network and build social capital on a personal level with other employees. Neidorf (2008) explains that with new workers in journalism, “students who have had more internships and other contact with the field… are logically likely to have more friends and contacts in the field (likely to be weak ties in most cases) than students who have not had those opportunities” (p. 57). Even single events like “attending conferences [and] speeches” (ibid) may replicate the development of ties in the workplace without having one. This development of social capital comes not necessarily through a locally constrained community such as an office or classroom but rather through interactivity fostered by common participation in a broader community of practice.

The recent popularization of coworking spaces similarly demonstrates that unified space, without the presence of a firm or even common industry providing a similar interest, facilitates productive informal communication and the formation of social capital, provided the workers themselves elect to take advantage of the opportunity. Coworking spaces (which Gandini, 2015, distinguishes from “co-working” spaces where people collaborate on the same project or at the same firm) are office spaces divided amongst a number of different workers and small companies. Unlike traditional offices which must be rented over the long term, coworking companies can rent spaces short term perhaps in a “timeshare”-like system where renters gain access to office spaces for a
certain number of hours or days in a week, perhaps paying by the day. Unlike traditional offices which often attempt to segregate firms (and workers within firms) from one another, coworking spaces deliberately place workers and companies in direct contact with one another: a cursory glance at images of coworking spaces on Pinterest show a plethora of creatively designed open floorplans with large glass panes in place of opaque drywall. Workers often share kitchen areas, bathrooms and internet access. Such spaces cultivate casual interaction as workers simply pass each other throughout the day (DeGuzman and Tang, 2011). Coworking spaces are not only designed to facilitate interactivity; workers describe seeking such spaces deliberately to form community bonds, rather than working alone. Clark (2007) cites one worker who describes coworking as being about “bringing the social back into the workplace.” Coworking spaces represent, according to Orel (2015), “a deliberate choice not to work alone” (p. 137).

Coworking may be a viable option for some, but any kind of co-working space may suffice. In New York City, where a three-person coworking space the size of a walk-in closet may cost $800 a month to rent, it is no surprise that coffee shops and cafes likewise serve as impromptu (and free15) communal work spaces for creative workers. When workers are geographically clustered, they may replicate the incidental contact experienced by employees in offices or workers at coworking spaces. In the middle of my interview with X07 at a café that he describes working at frequently, one of his coworkers incidentally walked in to work there without having planned ahead for them to

---

15 Access to locations and the ability to work is free, though workers might be required to buy something to stay. Even if it is not required, it may be on peoples’ minds, as X17 explains: “I don’t really like going to cafes and stuff because there’s all this weird pressure to keep buying the biscotti or whatever.”
work together. X07 describes having a Facebook group of a couple dozen people who may once in a while attempt to organize to come to a single place to work, but he describes it as a very casual group. He explains, “Usually, it’s maybe 6 or 7 people that usually show up. We just meet at a café, take over a little area, and just everybody works on their own project, and every now and then, we’ll take a little break, we’ll look and see, look at what everyone’s doing… It’s like an office space at a café.” These kinds of work arrangements are something of the inverse of coworking spaces: where coworking spaces are about introducing sociality to work, “third places” like coffee shops, nail salons and cafes which are “the heart of a community’s social vitality” (Oldenburg, 1989/1999) offer spaces to introduce work into sociality.

As indicated by X07’s discussion of organizing co-working over Facebook, workers do not even need physical space to benefit from casual encounters with co-workers or members of their industry community of practice. While some digital communication technology like email depends on existing social bonds (represented by access to a person’s email address without which there can be no interaction), there are services and technologies that mirror the casual open space of the water cooler or geographic “third place.” This includes public profiles on social networking sites like Facebook and Twitter where one does not need prior consent to participate in conversation with previously unknown or anonymous participants—no pre-existing social capital or capital of any kind (aside from the internet access, of course) is necessary to gain access to a public Facebook interest group, a message board, or a subreddit aimed at workers in a particular industry. Acosta (2014) explains that this kind of open technology can particularly benefit “historically marginalized groups” by
“expanding their social networks” (p. 12) unrestricted by education, finances and geography (provided they have access to the technology; see Chayko, 2008, p. 184). Wellman (2001) proposes that the proliferation of computer mediated social networks encourages “networked individualism” which in a sense makes each worker the focal point of a unique network through which other networks connect. The network is more variable and shifting than traditional organization structures, such as workers at the office, but allows a worker to have “partial involvements with shifting sets of workgroups” (p. 16) and become a conduit for sending and receiving information and social capital through a wide range of weak ties. All people need to begin acquiring social capital is incidental contact with others in a shared space, physical or not.

**The benefits of social capital to worker decision making**

The availability of social capital can translate into the availability of decisions to which a worker gains access. One such major contribution of social capital is in finding new work. Granovetter (1973) notes that labor economists have long understood how American blue-collar workers find work more through personal contacts than any other method, and in spite of subsequent developments in technology and labor since the mid-century studies Granovetter cites, social capital (especially in the form of weak ties, as Granovetter explicates) remains a factor in finding work. Pink (2001) provides a hypothetical example of workers Sue and Toni who both know designer Jim: “When Sue and Toni look for a designer, whom will they seek? Jim. If Jim can’t take the project, he might pass it on to Richard or Fred” (p. 149) whom Sue and Toni do not know but Jim does. X09 describes finding work in such a way. She describes getting a freelance job because her former employer passed her name along to a member of the community who
was looking for writers. The trust that X09’s employer has for her translates into work opportunities because he is willing to stake his reputation on a recommendation of her skills as a worker. X13 notes that a person’s reputation for being a skilled worker is important to him when he has a hand in hiring: “People come back more than once around, especially if you know someone’s a good developer and you have a say in hiring—‘I’d love to get this person because I know they’re gonna do a great job at this position.’”

Social capital can also serve skilled (and un-skilled) amateurs by opening possibility space for transitioning into professional working arrangements. X07, for example, worked as a hobbyist making games for years as a member of an online development community based around the development engine he uses. Through publishing his work on the site and interacting with other members, a member made him an offer to publish future projects of his. When he moved to New York City, X07 was able to take up that offer and become a paid professional, earning a salary. X09 entered the games industry by simply having a conversation about one of her favorite games with someone she met through a mutual acquaintance who soon after offered her a job. Neidorf (2008) describes the importance of “legitimacy” for entry-level journalists from “former internship bosses, professors, and former student newspaper colleagues already in the journalism field to make introductions or even recommendations to editors that the applicants be hired” (p. 57-8).

Of course, a worker’s capacity to access these kinds of transitions from non-professional to professional work through social capital depend on a number of other considerations that may vary considerably by job and industry. The kind of “easy”
transition X09 has, from knowing literally nothing about making games aside from what she has acquired through her history as a games consumer to becoming a fully-fledged game designer, depends on the fact that it was economical and practical for her employer to teach her those skills to a necessary degree of competency without losing money long-term. It is also facilitated by the fact that professional game development is unregulated; lawyers and paralegals, by contrast, require formal training and officially sanctioned licenses in order to legally access positions that social capital may assist in acquiring. No amount of hobnobbing with lawyers can overcome that hurdle legally.

Casual interaction within a free-flowing group also help spread information through the network, and such information can serve as a valuable asset to workers making decisions. Aside from information about jobs or potential collaborators, this information may take the form of recommendations from trusted individuals that may steer confidants towards what might be considered best practices within a certain community. Consider the number of possible game engines a new game developer has to choose from (see Appendix B); without social capital, the workers depends on internet resources which may prove inadequate as an expressive component to motivate the worker to make a choice—especially because once work on a game on a platform begins, it becomes increasingly harder to make changes afterwards. Those with access to trusted people, however, can make this decision easier by relying on those who have already made the choice. X03, for example, describes having heard about Unity in the past—“it sounded neat,” he says—but never feeling the motivation to switch to using it. Then, he explains, “I remember having a coworker look into it for possible projects at the company I was working for.” It was only when “people no longer were excited about [Flash].
Everyone kept saying, ‘Oh, don’t use flash, make it in JavaScript,’ or ‘Everything needs to be an iPhone game now, that’s the next top thing’” that he decides to make the switch to Unity. X09 too describes changing her approach to making decisions after having connected with other people who challenged her assumptions: “I think I used to think that there was one path to get it right, and I feel like I might have not looked at all of the opportunities because of that. I think that since then, and meeting so many talented people and what they can do, my fierceness in that we should do this or that, or my belief that I’m going to get this wrong because it’s the right choice or the wrong choice has dissipated.” Workers, naturally, can learn about much of this on their own (this is one of the reasons that independent game making is currently thriving, as discussed in chapter 2), but the input from trusted people helps workers make decisions more easily.

The significance of social capital on obtaining this kind of support is all the more apparent in accounts of the mainstream games industry where secrecy is more commonplace. O’Donnell (2014), who writes extensively on the subject, states that secrecy is a blockage to collaboration at the industry level (and one presumes on the personal level accordingly): “If game development is an index into new economy work—both are spaces where experimental practice is crucial—then the ability to communicate and think about access or obstacles to experimental practices are even more important” (p. 79). Without the ability to exchange information freely between workers, as demonstrated by, for example, the proliferation of development techniques on the Unity user message boards, every project reinvents the wheel and cannot capitalize on the expertise that could be exchanged from person to person and firm to firm. In this way, O’Donnell also notes that a culture of secrecy re-embeds in new hires who, unable to
learn from those who have already learned what to do, come to “view their own solutions to common development problems as the only possible ones” (p. 143). New workers are also less able to approximate how much time a task is likely to take because they do not have people helping them with that information, and this can have impact on how producers estimate time-tables and workloads: “New conversations about practice can begin” if people are willing to abandon secrecy, “ideally resulting in more realistic timelines and less crunch” (p. 210). Such an improvement in quality of life contributes to opportunities for workers to take better control of their lives and work, if only in simple ways of having the luxury to work on a project with less pressure from the producer.

Beyond social capital’s role in helping workers resolve more mechanical work-related concerns like solutions to problems or best processes, another significant contribution from social capital is innovation and inspiration—especially within cultural work. Innovation, as Becker (1982/2008) explains, can be deeply important: “Every art work creates a world in some respects unique, a combination of vast amounts of conventional materials with some that are innovative. Without the first, it becomes unintelligible; without the second, it becomes boring and featureless, fading into the background like music in supermarkets and pictures on motel walls” (p. 63). Knowledge of basic conventions comes increasingly with familiarity over time, as Becker explains, “Most of what they know they learn in the course of their daily practice” (ibid). Because innovation requires being well-versed in contemporary practice to know what others are doing, markets that encourage innovation (like most consumer marketplaces for culture) more strongly encourage workers and firms to participate as closely as possible with communities and learn as much about new developments as possible. Given
Granovetter’s (1973) position that weak ties help propagate new information through a network by exposing people to a flow of new people with different associations, this indicates how this information helps workers innovate, encouraging them to try things that no one is talking about as well as refining conventions based on what everyone is talking about.

This information spread through the weak ties of a casual social network may not affect a worker’s overall capacity to make decisions, though it does have the potential to greatly shape what those decisions may be. Interviews with members of the New York City independent games community frequently raise this issue, with workers often motivating themselves and innovating their practice based on the opinions of others around them. X03 mentions how meeting members of the local community helps him “bounce ideas off people and get excited about certain things.” X05, who is more experienced and generally relies on his own cultivated intuition, explains, “I really like to see what other people are working on. One of my favorite things is solving other people’s problems.” X07 enjoys meeting people to “get inspiration from them and see what they’re working on,” and similar ideas come from X09, X15, X17 and X21.

It is worth recognizing, though, that as much as innovation, in Becker’s assessment, distinguishes quality work from “music in supermarkets and pictures on motel walls” (p. 63), this is what a considerable amount of creative work (and cultural work) amounts to. This is what Caves (2002) refers to as the “humdrum” work many cultural workers do to earn a living while more innovating, personal, and creative work languishes in obscurity. For workers like these, innovation may be unimportant or perhaps even counterproductive. Consider romance novels, published by the truckload for
a voracious fan base. With one imprint publishing two to four books a week, these titles have an exceptionally small shelf life and a specific “heat” level-based categorization system based on how much erotic content is in the text (Carmon, 2011). Because of the low sale prices and high volume of product, major romance publishers “might worry about the size of the market” (ibid) for less conventional work, like books with gay themes, but with the much lower overhead in digital space, “there’s a lot of opportunity for experimentation in digital” (quoted in Carmon, 2011). This minimization of innovation is, as in Carmon’s example, affected by risk aversion which Elberse (2013) suggests explains, in part, how “studio executives will strive to leave a ‘winning formula’ unchanged and thus avoid uncertainty about how, say, a switch of a lead actor or talent show judge will pay off” (p. 33). Any cultural industry in which boilerplate products still earn money (including elevator music and hotel art that Becker refers to so dismissively) may find the impact of inspiration and innovation lessened accordingly—and, this also means that social interaction and the development of communities may also be less significant in affecting the decisions such workers and firms make in their labor as long as the conventional logic holds and their products, however ordinary, still sell.

**Drawbacks of casual interactions**

Casual contact with fellow workers and members of a local or digital community of practice can help develop valuable social capital, find solutions to complex but common work problems, and innovate off of the work of others, but there can be drawbacks that limit worker decision making capacity, as well as factors that prevent some workers from accessing certain informal networks. The discussion of benefits of casual interactions is predicated on the assumption that those interactions are positive, or
at least neutral. If coworkers do not get along, Muir (2000) points out that workers may be less motivated to be productive or they may seek other work (p. 144). Howard et al. (2016) indicate that while some workers might retaliate against workplace bullying or attempt to reconcile, others may turn to avoidance. If a worker copes with a difficult work environment by avoiding another worker, this effectively cuts that worker out of any spaces of social interaction that the other person might attend. This kind of hostile environment closes off opportunities for workers at their workplace, denying them access to the social capital they might be better able to acquire in the absence of a workplace bully. It may even be accidental, as X12 describes. He describes having a bad encounter with a local worker at a party and telling his friends about it. Afterwards, he explains, “I realized that I saw a blog post from him that said, “For some reason, I can’t find work anymore.” X12 goes back to his friends and lets them know that this guy “deserves a second chance,” at which point he starts finding work again.

Workers might also find limitations caused by social hierarchy within a community. Lave and Wenger (1991) note how access to information and tools might be manipulated within a community of practice; they note, for instance, how new butchers’ apprentices get delegated by old-timers to tasks that are not teaching them the central meat cutting information (p. 104). It is one thing for a worker to be at the periphery of an activity—able to ask questions or monitor and learn—and another to be kept away from the periphery and left out entirely. This limitation on workers can also come from bosses that dislike or dismiss someone—especially a new worker who has few ties within the industry. Hesmondhalgh and Baker (2011) describe a junior television producer who makes a suggestion in a meeting and while taking a break outside of the room, a contrary
decision is made without him (p. 177). In another instance, the authors describe how this junior worker is assigned to a more senior producer who he feels is not working enough, forcing the junior employee to do work that his senior colleague ought to be doing (p. 178). This contributes to deep frustration and exhaustion, and because of the worker’s junior status, he or she is unable to directly confront the issue without potentially harming themselves down the road in future jobs (as the author’s indicate, jobs in the television industry depend considerably on reputation from past projects). The worker cannot discuss the matter with coworkers at the same level within the hierarchy either, for fear that the information reaches someone else above.

Discrepancies in hierarchy may affect the significance or availability of casual interactions within a community even if worker hierarchy is not established by job title or seniority. Meltzer (2009) notes that while journalists across media share common interests and values, members of the community hold different esteem for people depending on the medium in which they work. She notes, for example, that while television journalists are the most widely known in public, they are seen as less authentic compared to print journalists who are “the genuine craftsmen” (p. 61). Anchors in particular might not be considered actual journalists at all, in spite of members of the community simultaneously calling them “the pinnacle of the journalism hierarchy” (p. 62). This speaks to a particular complication in discussing the role of community hierarchy on worker decision making capacity. One would expect that access to anchors would improve decision making capacity by providing influential social capital to the lesser known worker, but it is unclear to what extent that is countered by the community’s broader lack of respect for television journalists. Meanwhile, there are also
any number of possible reasons a community might stratify (or workers may perceive a hierarchy), such as popularity (Zhao and Elesh, 2008) or perceived quality of ones’ work (as in Jenkins, 2006, with respect to the subcultural community of reality show spoilers, p. 34). Even when a worker might be able to get access to someone perceived as higher in hierarchy or a space populated by people of esteem, he or she may self-select to avoid it. X04, for instance, mentions wanting to go to a well-respected local conference on game design, but he says he does not go because he feels inadequate compared to the event’s attendees: “So far, I haven’t felt enough like a game designer to go… but I want to start building up my actual game design skills now that I’m working more on my own.”

Division of a worker from the space of casual interaction does not have to result from poor or absent relationships with (or perceptions of) other workers. Deuze (2007) notes, for example, that some workers may be unable to enter a network due to “elitist, nepotistic, and cliquish networking practices” that result in high barriers to entry, especially for traditionally marginalized people like women and minorities in media professions (p. 87). In other words, if the network is characterized by relatively strong ties, this discourages people from participating, even when the space itself is open in theory to new people being involved. In other situations, the working community may be divided internally between collocated workers and distance collaborators. X04 discusses how being physically separated from his coworkers leads to being unable to participate in helping make decisions about the game he is working on: “I’m at home, and so whenever there is a conversation about the game, [my partner] is there and the people he’s working with are there but I’m not, so I can give feedback to [my partner] but mostly the game gets designed over there, and because I’m not there, it’s harder for me to do that.”
Perhaps this distance also affects the quality of social capital X04 is able to obtain relative to his partner who is more directly in contact with people, but X04 is undoubtedly out of touch with casual interactions with workers with whom he is not directly working with. If he were in the office, he might have such contact by passing people in halls or, of course, standing around the water cooler.

This complication extends to interactions between workers in different firms or workers at a firm and independents who do not work there. In order to talk around the water cooler, a worker needs physical access to the water cooler. In X04’s case, it is a problem of physical proximity, though he has permission to go to the office if he is able to make it there. An independent worker, however, does not have access to enter the building (at least not without social capital to have someone let the worker in). This may be of little consequence in most cases though, provided the workers meeting at the firm have weak ties outside the firm. This contributes not only to casual information and social capital from the in-firm community extending outward and proliferating to other networks but it also means that workers can invite outsiders to come to the office and physically participate (in theory, at least). If there are issues of secrecy and disclosure, such as those discussed by O’Donnell (2014), they may cut off this flow of benefits to workers outside the privileged space, but this is not a problem of informal communities of practice—it is a problem of formal communities of practice (i.e. the firm and its policies), which is another issue altogether.

Another potential problem comes for contingent workers who, by virtue of their temporary status, feel no compulsion to engage socially with coworkers. Muir (2000) explains the issue is with temporary workers “who may not share the ethos of a particular
company and don’t care to impress their coworkers” (p. 143). If this is true, it suggests a problem in the creative industries where globalization and a rise in independent work contribute to a greater number of temporary or otherwise precarious workers (as discussed in chapter 2). Whenever a worker chooses not to participate in an informal community, it both deprives that worker of access to the social capital and benefits from other workers and deprives those coworkers of social capital from that isolated worker.

That said, this concern may be overblown, especially because of how important networking is to independent workers in keeping a steady influx of jobs. Stahl (2009) notes how non-union workers in media production depend on impressions, in contrast with the blasé attitude insinuated by Muir’s example: not only is staying employed dependent on producing satisfactory work, but it is also about “whether or not a worker can please his or her superiors” (p. 63). Lee (2012) too indicates that to be a worker long-term in the television industry, workers need to “build up your social capital through networking” (p. 492). Gill and Pratt (2008) directly state that, in the absence of union protections, precarious work relies upon “social networking and social recruitment” (p. 4). Where Muir’s suggestion may hold is not with the proliferating precariat, but with workers at temp agencies—workers who are placed in jobs and do not require social capital to find work. This appears to be an insignificant proportion of the creative industries, though employers that find employees through head hunting (the practice of hiring an intermediary to recruit potential workers) may create the same dynamic where workers do not depend on a wealth of social resources to access new work opportunities.

Lastly, while informal networks of practitioners excel at propagating information through weak ties, the fluctuating, open, and temporary quality of these kinds of networks
mean they lack collective resources (i.e., social capital in Bourdieu’s, 1986/2011, sense of a social network’s pooled resources). Where more established groups may have access to general funds or programs, the fact that these groups are temporary and incidental means that they will lack the benefits of a more constructed organization. Non-firm based communities are not the same as an established firm: “no number of Facebook friendships will serve as a safety net if you go bankrupt” (Clark, 2007). This makes informal community valuable for creative workers but not a substitute for the traditional provisions of firms, unions, and other formal associations which can offer a wider range of support through consistent membership, leadership, and funding.

**Formal communities of practice in creative labor**

Where casual interactions between workers contribute to decision making principally through social capital and open access to other workers and their personal resources, more rigid structures and organizations, such as firms, labor unions, professional associations, and educational institutions, provide staging areas for this kind of casual interaction as well as additional opportunities for workers by leveraging collective resources that informal groups do not possess. The options made available by formal organizations come at a potential cost to worker decision making capacity, though; most workers do not have access to decisions made at the tops of organizations, especially at larger established organizations, and where they can participate, it may only be in shallow ways through representation, surveys, or suggestions to leadership. This is not to suggest formal communities of practice deplete worker decision making capacity—they might, but not always. Rather, formal communities pose a potential trade-
off for workers who can lose access to some decisions in exchange for the benefits offered by participation in the group and services an organization provides.

**Firms and the creative industries**

It would be wrong to look at creative labor and communities of labor without considering companies that employ and consist of them. To be sure, businesses of all sizes and legal structure offer somethings to workers that labor might not otherwise have access to, though chapter 2 discusses extensively the tradeoffs workers consider in participating or forgoing employment for independence. The modern development of the corporation derives from its “superior economic efficiency as an organization form” (Anderson and Tollison, 1983, p. 108) and limited liability to investors (see Easterbrook and Fischel, 1985, and Demirguc-Kunt et al, 2006). A company, rather than an unincorporated partnership, can not only act as a single legal entity for the purpose of contracts, but it also ensures that the failure of a company does not mean investors will be held liable for debts. Demirguc-Kunt et al. (2006) explain that absent some legal architecture isolating liability from investors (at least in most cases as Anderson and Tollison, 1983, note), this would make it “harder to obtain investment funds, especially from wealthy investors” (p. 2968). Thus, the firm offers a legal, less-risky, and more investment-appropriate work arrangement relative to complete unincorporated independence. It is worth recognizing that a corporation is not limited to large partnerships; freelancers and independents are advised to form limited-liability corporations (LLCs) to ensure the same protections that extensive corporations have (see Sweeny, 2016).
The properties that make a firm an efficient entity for organizing work contribute to its ability to provide opportunities and resources that affect employee decision making. While a worker as an employee potentially sacrifices a lot of the liberty that independence (or business ownership) would provide in the form of work hours, pay, what work to do, hiring decisions and potential partnerships, the firm offers many resources in return. This may include steady pay, even when the firm is unprofitable, non-pecuniary benefits, co-working space (which, as previously addressed, encourages the development of casual communities within the work space and helps develop social capital), and opportunities for workers to be unburdened by undesirable work. Whereas an independent game developer has to do every task to produce and distribute the game, an employee can count on the employer to both distribute different tasks to workers based on their preferences and competences as well as manage that labor. In spite of potential benefits, there is nothing that requires a firm to offer to a worker anything beyond market wages or whatever they are legally required to provide.

Firms also present another complication to worker decision making capacity in regards to secrecy. In order to keep competitive advantages in markets or simply avoid legal or reputation damage, firms may depend on a strategy of secrecy, preventing or discouraging workers from disclosing information about their past, current, or future work beyond the firm (Costas and Grey, 2014). O’Donnell (2014) criticizes this secrecy extensively within the mainstream games industry, suggesting such secrecy over intellectual property and engineering approaches “prevents the formation of a community of practice more broadly at the cost of limiting the growth of developers and the industry” (p. 180). Neff (2005) describes this as a troubling trend more broadly in cultural
industries; because the firms are so inaccessible, it prevents access to newcomers by gating social networks behind a wall of “industry cocktail parties, seminars, and informal gatherings” (p. 138). Neff also notes this is further problematized in “the absence of other organizational and industrial supports” that make one’s social network a central issue for staying employed (ibid).

**Unionization and the creative industries**

The role of labor unions is to act as a unified counterbalance to the interests of capital, government and the firm. Rather than each individual employee negotiating an individual contract with the employer, the union uses collective bargaining to negotiate terms on behalf of all members (or, as Cooke, 1983, notes, at least 30% of them). Bennett and Kaufman (2008) cite a number of benefits to union workers compared to non-union ones, including reduced turnover, improved working conditions, better job training, developing trust and cooperation, and “improving decision making” (p. 3). Furthermore, they note that while an individual employment contract negotiation encourages an employer to hire and retain workers “just on the margin of going to another firm,” collective bargaining, by virtue of putting all workers into consideration at once, encourages the firm to offer employment packages more appealing to “average” workers who are likely older and have families (ibid). This means that starting employees are likely to have stronger protections and better wages and benefits. Stahl (2009) also notes that for workers involved in production of intellectual property for hire, while the law gives intellectual property ownership to the employer, unions can negotiate “quasi-proprietary rights” (p. 57) for workers to earn residuals from their production. Florida (2012) flatly pronounces, “Unions mitigate income inequality” by contributing to higher
wages (p. 365). As addressed in previous chapters, resources of all kinds, including financial capital and available work time and space, play roles in a worker’s capacity to make decisions. Accordingly, unionization is entangled in the assemblage of creative labor in that collective action can challenge capital and fight for an increased share of resources which may, if only in subtle ways, contribute to expanded opportunities to make work decisions.

This power in collective bargaining, though, comes at the expense of a worker’s individual bargaining capacity and thus, in a sense, decision making capacity. Contracts are negotiated as a group and must be ratified, meaning that members all potentially participate, but their individual contributions to the negotiation are diminished. In a sense, every provision in a union contract is one aspect that the worker is not directly negotiating—and of course that frequently works to the worker’s benefit because, as previously addressed, it is the power of the entire union that helps negotiate those terms.

That said, there may be areas where an agreement does not suit a worker but the terms have been negotiated already. For example, the 2012 International Alliance of Theatrical Stage Employees (IATSE) standard agreement notes that mandatory “rest periods” for workers on long shoots or consecutive days on a production do not apply to workers on pilots or a series in its first season (p. 7). The same might be said of any number of provisions in these often lengthy and meticulously sculpted contracts. The rules concerning nude or sex scenes in the Screen Actors Guild provisions ([SAG], 2005) emphasize consent considerably, but if an actor consents to a sex scene and then subsequently withdraws consent, the producer has a right to double that actor without consent (because the scene was previously shot and consent was provided beforehand).
SAG union actors cannot participate in films that are non-union (which may perhaps be for budgetary reasons) even if they want to\textsuperscript{16}. Unions establish base pay and benefits for workers within particular schedules but they may not always leave opportunities for members to negotiate higher individual contracts. Pink (2001) cites the example of the NBA which offers such an arrangement (p. 227) but it may not be part of every union.

Benefits of union participation can be extensive and can hardly be overlooked, but there is some risk that this participation comes at the expense of certain conditions a single worker might like to negotiate in isolation. There are legitimate reasons a worker or group of workers might choose not to join a union, particularly if they want to maintain, nominally at least, this personal authority over particular provisions in labor agreements.

Given the emphasis on independence in so much of the creative industries, one may argue that the subject is growing increasingly irrelevant. McRobbie (2002) describes this “new labour,” no longer traditional or organized, governed by ideologies of “self-actualization, even freedom and independence” (p. 518), but if this describes creative labor, it certainly does not describe all of it. Some long-standing cultural industries (television, radio, film, theater) are heavily unionized, though there are no accurate numbers concerning the percentages of union versus non-union workers. Gray and Seeber (1996) suggest, “Knowledgeable observers say that almost all performers are union members and work under union contracts” though percentages for technicians and production workers in unions has declined (p. 34). The number of prominent unions and guilds in cultural industries is extensive: the Screen Actors Guild- American Federation

\textsuperscript{16} SAG-AFTRA’s Texas local website ([SAG-AFTRA], 2016) attempts to temper the sting of this lost opportunity by reminding actors that union members are allowed to audition for non-union work—in fact, the page advocates it. The catch, of course, is that if the actor gets the role, they must convince the producer to become a union shoot in order to keep the actor.
of Television and Radio Artists (SAG-AFTRA) which include actors, broadcasters, voice actors, stunt performers, and more; the Motion Picture Editors Guild; the Writers Guild of America (WGA); International Alliance of Theatrical Stage Employees (IATSE); and the American Federation of Musicians (AFM) to name a few. The games industry (except for voice actors, who can be represented under SAG-AFTRA) is a notable holdout in spite of reports of poor working conditions in mainstream studios (Dyer-Witheford and de Peuter, 2009, p. 63).

The situation for non-cultural creative labor is more like the games industry than Hollywood in this regard. Computer programmers, for example, are predominantly unrepresented. There is a union that represents them, for what it is worth—Communications, Computer, and Software Workers Industrial Union 560, under the umbrella of the Industrial Workers of the World (IWW)—but the website for the union itself admits, “Workers in our industry are largely unorganized” (Communications, 2016). Numbers from the Bureau of Labor Statistics (2016c) support that claim for computer workers (5.3% of those employed are represented) as well as a host of other creative professions: management, business, and financial operations occupations (5.4%); arts, design, entertainment, sports, and media occupations17 (8.8%); and legal occupations (6.8%) are notably low in union representation. The most represented creative industry category in the BLS data are education, training, and library occupations at 39.5% represented. This is likely due largely to the prominence of public workers in that

---

17 This category in BLS’s data is incomprehensibly broad, which likely explains the wide discrepancy in why nearly all actors are represented but only 8.8% of workers in this broader category are. It includes artists, graphics designers, set designers, umpires, radio and television announcers, editors, technical writers, authors, radio operators, sound engineering technicians, photographers, camera operators, floral designers, and dozens more occupations.
category, which the BLS (ibid) notes are represented more than five times as often as workers in the private sector. The data has gaps, of course; as discussed in chapter 3, the BLS does not adequately track numbers of self-employed and precarious workers, meaning if those workers are represented by unions, the BLS may not account for them. With that said, there are no prominent unions representing many of the occupations that trend towards precarity like graphic designers\(^\text{18}\), project managers, or QA testers, to name a few.

An implication of limited union operations in so many of the creative professions is that workers in those professions are more limited in their decision making capacities than actors or other heavily unionized workers. This is complicated by a few factors, however. As previously addressed, unionization does impose some limits on worker activity, specifically individual bargaining power over certain aspects of union contracts including what projects the worker can accept. It is impossible to produce a blanket calculation that clarifies how working under a union contract affects worker decision making because it depends on how many decisions the worker might have been empowered to make without the union’s interference alongside any new potential opportunities for the worker facilitated by the greater access to resources (higher wages, more stable hours, less precarious jobs, etc.) gained through the union contract. Whether this net gain or loss in a worker’s capacity to make decisions even matters in the worker’s decision to participate in a union is unknown because, as discussed throughout the previous chapters, there are many motivations for workers beside autonomy including money and free time.

\(^{18}\) There is a Graphic Artists Guild, but it does not engage in collective bargaining and is really a professional association. See below for details on professional associations specifically.
Another issue to address is that unions are less compatible with entrepreneurial creative labor. As Bennett and Kaufman (2008) explain, “All sides agree that the objective of unions is to advance the interests of their worker members, and towards this end they exert pressure on employers and governments for improved terms and conditions of employment” (p. 1, emphasis added). All workers work within the context of government, to be sure (though for private sector labor, this relationship is indirect and a union’s role in the process is lobbying and not collective bargaining), but workers who are self-employed by definition have no employer to pressure but themselves.

The implication of this complication is rendered clearest in relation to the Freelancers Union. The Freelancers Union represents no single job or industry in particular but any freelancer, consultant, or otherwise independent worker. Beyond its name, the union looks little like a traditional union. On the one side, membership requires no dues, but on the other hand, the Freelancers Union does not negotiate contracts on behalf of its members: Greenhouse (2013) notes that it has no authority to do such because the National Labor Relations Act does not require employers to bargain with independent contractors—only employees. The Freelancers Union offers subsidized health care, lobbies on behalf of its members, and provides information to workers to help guide them through independent work, but the relationship is much less directly impactful than that of other unions. It represents a paltry percentage of workers that fit under its umbrella; its website claims one third of Americans, 54 million people, are independent workers, but the union (which, again, is free to join) has only 200,000 members as of 2013 (Greenhouse, 2013), amounting to .3% of eligible independent
workers\textsuperscript{19}. Half of those are in New York State alone (ibid). Either the union has not yet made its presence truly known and felt around the country or too few workers find the service it provides meaningful to them.

Absent an employer to negotiate terms with, workers depend on either market forces (such as sales for an independent game developer’s game) or grants (like those that might sustain an interpretive dancer). There may be places for something that bears resemblance to a union in some regard—the Freelancers Union provides services and lobbies on behalf of its members, as other unions do—but calling these entities unions as opposed to the more appropriate term of professional association is misleading. For independents especially, the difference between the two may be precious little, as the Freelancers Union suggests.

**Professional associations in creative industries**

Where unions may not be rising to serve the interests of many in the creative industries, professional associations have risen in prominence. Where a union represents workers in order to leverage political and bargaining power against employers and government, professional associations focus on the interests of workers within a specific industry or job with a stronger emphasis on community building and skill transfer. The executive director of one such organization, the Operating Room Nurses Association of Canada (Harley, 2015) cites a number of reasons someone might wish to join a professional association: “It officially demonstrates your interest and commitment” to the field and “ensures your ability to connect with the mainstream Perioperative Nursing profession” through meetings, conferences, publications and online discussion forums; it

\textsuperscript{19} Greenhouse (2013) presents a BLS figure that suggests only 20 million freelance workers, but even still that leaves representation for the union at 1%.
offers “the opportunity to demonstrate leadership” by participating in roles through the association like editing journal articles and volunteering on committees; and it creates “a collective voice to advocate” and “advance the field” (p. 9). The only significant way the mission of such an association differs from that of a union is the power and interest in collective bargaining, which is why Greenhouse (2013) alludes to the idea that the Freelancers Union (which indeed lacks collective bargaining power) is “more like an association than a union and will not be able to achieve truly significant gains for workers.” Mosco (2016) likewise explains, “These worker associations resemble unions but, either out of choice or necessity, remain outside the legal and political structures that govern the operation of trade unions” (p. 27).

True, the absence of collective bargaining through professional associations significantly detracts from the broad impact that a proper labor union might have on issues like pay, benefits, and working conditions in ways that affect worker decision making capacity, but professional associations can present significant gains, especially in the absence of a union to provide certain important services. In the New York City independent games community, no union (aside from the Freelancers Union which may or not actually qualify) represents game makers. That said, there are a number of associations big and small providing services throughout the city. One, XGGG, is a branch of an international non-profit organization that emphasizes networking and community, advocacy, and professional development. The New York branch features networking socials over dessert, panels and other events featuring local workers on subjects of interest to the community like resume and portfolio reviews, an online message board for people to communicate about events held by this and other
associations, and services that match people looking for work with those offering it. Another association, XORG, is a larger, more established professional association that began in New York and has since spread to other independent game communities across the country. It emphasizes the same priorities as XGGG, though its focus is more commercial and events can sometimes have significant entry fees. XORG offers quarterly events where developers and studios have opportunities to show off builds of games in development or near release to get feedback from the community and market their skills. The association also features training workshops on technical skills, marketing techniques, and game design. A third association, XART, serves the community of people who make and enjoy more artistic games through a New York-based studio space. Unlike XGGG or XORG, XART offers subsidized work space for people who cannot afford the expensive coworking spaces in the city and it also runs shows for games and music at the gallery space. Like the other local organizations, XART too offers workshops and discussion events.

The result of so many associations (not to mention at least two weekly drink nights in two boroughs and the New Jersey based organizations running events just across the nearby Hudson River) is that in spite of being independent, New York City independent game makers have incredible access to local communities that blend and overlap to provide a huge variety of decision making opportunities. The local community’s impact on social capital alone cannot be understated; X02 explains, “Most of my social and professional circle is in that indie games community... That community pretty much is my circle,” and X07 says much the same: “The majority of my friends here in New York I’ve made through [XORG and college events], and I know all these
indie people now. Which is funny because when I went to GDC [in San Francisco] this year, I was like, ‘Everybody here is from New York! Why did I even bother coming here?’” Alongside annual conventions and events hosted through local higher education institutions, there is almost too much to do, as X05 explains: “I could literally fill almost every day of my week with some event….It might be a bit too much, you know?...

There’s a thing every other day, so of course you are gonna miss a few. But you’re gonna catch at least one iteration of that thing, right?” X05 notes in particular that many of the events feel geared to new independent game workers, meaning he often finds the events uninteresting because they concern things he already knows. On the other hand, it demonstrates how much demand there is in the community for events catering to the uninitiated and untested workers who need that support perhaps more than veterans. Professional associations are meeting that demand head-on, providing networking, skill acquisition, and work space that would otherwise be absent.

Many of the jobs that lack significant representation through unions likewise have networks of professional associations taking their places to provide services that help facilitate decision making for workers and firms. This includes associations for web professionals (WebProfessionals.org), computer engineers and software developers (the Institute of Electrical and Electronics Engineers, or IEEE, and the IEEE Computer Society), information technology workers (the Association of Information Technology Professionals, or AITP), advertisers (the American Association of Advertising Agencies, or the 4A’s), and project managers (the Project Management Institute, or PMI). Like professional associations serving independent game makers in New York City, many of these professional associations provide services through conventions, local events held
through chapters in various cities, and online services that connect workers to other professionals.

One aspect of some of these associations that is not part of the games industry is certification. Along with other services, some of these professional associations directly provide workers with opportunities to earn certification that serves to demonstrate proficiency to potential employers. PMI, for instance, offers an array of certifications including the vital PMP certification for project managers. Starkweather and Stevenson (2011) describe PMI’s guidebook that is used as the basis for PMP certification as “the global de facto standard for those engaged in project management” (p. 31), and they suggest that PMP certification “is a necessary, but not sufficient factor affecting project management success” (p. 39). How valuable certification is for impacting worker decision making capacity is unclear, though; while Johnson et al. (2016) suggest “projects led by PMPs have higher success rates and frequently result in substantial savings” (p. 11) for certified public accountants, Starkweather and Stevenson (2011) suggest that PMP certification does not guarantee higher success rates for project managers (p. 39). Still, there is a service provided; jobs that require PMP certification are common and if a worker wants that job, he or she must have the certification which is only provided by PMI. On the other hand, the certification is costly—over $400 for PMI members, and the membership itself is more than $100 a year—and certification must be maintained through earning “professional development units” and retaking the PMP exam every three years. Participation in PMI—at least as far as it is implicated in the certification workers require to continue working and earning at their current level—involves a tradeoff of financial resources (not to mention time invested in professional
development) in exchange for the certification. How workers feel about such a tradeoff will depend on the worker and how many work opportunities that certification makes available, not taking into account the practical benefits of the knowledge acquired in the process.

PMI demonstrates a way in which participation in a professional association can be less an opportunity for workers and start to become an obligation, taking the choice away from workers. Given the reliance on PMP certification, a number of workers only interested in the certification will have no choice but to be members of PMI. From PMI’s perspective, if all it offers is certification, it might still suffice rather than offer any of the networking and knowledge-transfer opportunities other associations might employ. Of course, the same has to be said of union participation to some extent; in states that do not have so-called “right-to-work laws,” workers can be compelled to join the union and pay dues as a precondition to employment. This helps support union activities which, as previously addressed, ultimately return dividends to those workers, but the same might be said of the certification offered through PMI, as the association does offer other services for workers in the way unions do. One difference is that where compelling worker participation in a union benefits the worker and the union, associations that traffic in highly respected certifications serve employers as well. The worker does not need certification at all—it is a symbol that acknowledges that the worker has learned a certain set of skills. The employer relies on the certification as a way to evaluate workers without having to test those skills or trust that the worker has them. The worker that pays for certification is paying more to make sure others recognize their skills than for the skills themselves.
The relationship between a professional association with certification services and employers can create conflict of interest, or at least the appearance of it. Schofferman et al. (2013) discuss this in relation to professional medical associations (PMAs) which, like other professional associations, provide “education, research, and advocacy for and of its members” (p. 975). PMAs affect labor through “continuing medical education… meetings and programs, [and] the development of clinical practice guidelines” (ibid), and when PMAs work alongside companies that have vested interests in ensuring that they profit from the education and guidelines established, there is the possibility that the interests of sponsors will be embedded in the association’s positions. Not only do PMA annual meetings draw huge crowds of professionals, making them important opportunities for industry marketing, but they may also offer sponsored events and symposia intended to influence workers. Any influence these industry actors may have on a PMA’s guidelines can have significant consequences on worker practice because all of the services PMAs provide “carry great weight with physicians and the public” (Rothman, et al, 2009, p. 1367).

This is a concern that extends beyond the medical field, as quite a number of professional associations also feature extensive advertising from sponsoring firms that create possible conflicts of interest where a professional association may serve the interests of industry partners over those of members. AITP, IEEE, PMI, and 4A’s all feature partners and promotional opportunities for companies with interests in reaching members. While some associations may be small and minimally funded, like XART in New York City, others may be more significantly supported by corporate partners who may gain privileged access to workers through collaborations with these professional
associations. XORG events in particular are hosted within offices for a corporate sponsor with corporate promotional materials displayed on screens which, while it may not be a conflict, can suggest one. At the very least, it reflects a vulnerability participants in these associations have to being affected through this kind of relationship to sponsorship. Professional associations may still open opportunities for workers to make new decisions otherwise unavailable by providing services, events and networking space, but the associations can potentially structure those opportunities to benefit certain partners more than members themselves.

**Community and higher education for creative laborers**

Another space implicated in affecting worker decision making is the apparatus of higher education. While it is most obviously connected with providing the skills future workers will depend on to conduct work effectively and the credentials that demonstrate proficiency to potential employers (see Saichalie and Morphew, 2014; Becker, 1982/2008; Caves, 2002), institutions can also provide a host of resources and opportunities to workers who can access them that also supplement decision making. Like other formal spaces, institutions can offer events to students, alumni and the general public, advocate and research in service of an industry and its workers, and provide valuable services and networking opportunities.

One significant contribution higher education provides future workers is developing social bonds among students and between students and instructors that they, as workers, can rely upon in the future. In the context of the New York City independent games community, X11 discusses not only developing long-lasting friendships through participating in a master’s program but also relying on connections to a classmate to help
develop art assets for his game. X17 explains that while having the degree “sounds cool, I guess,” the real benefit he finds from his time earning a master’s is “the community and the people that are around, knowing them and being in this place is invaluable.” X21, having not participated in such a program, describes networking as a primary reason that would encourage him to apply, though he explains, “I think I could probably get the part I really want without going [to the program], which is the community aspect of it.” X21 and the rest of the community that are neither students nor alumni of New York City games education programs do maintain the ability to develop ties to students without being in the program, especially because prominent educational institutions like XNYCC host a tremendous amount of events and faculty of nearby programs frequently attend local events of all kinds.

In other fields, the importance of institutions of higher education on forming community bonds may be more pronounced. Lovell (2015), for example, suggests that undergraduate medical students20 form “subculture” which “may be perceived as impenetrable and exclusive by non-medical students” (p. 1017). Lovell attributes this condition to students’ desires to associate with like-minded people who “understand their trials and stressors” (p. 1020) in order to avoid becoming isolated. He explains that medical undergraduates struggle to communicate with other majors, driving them closer to each other (p. 1021). This perhaps has to do with the type of work in question; whereas making games is an activity that invites interest and participation from the lay public (and these activities, like playtesting, may be integral to making games and, thus, likely to be conducted with the public in mind), medical training is highly specialized and lay people

20 Lovell (2015) conducts his research in the United Kingdom, where medical school is an undergraduate rather than graduate track.
are much less drawn to events that attract medical professionals. There is a much larger layperson attendance at a games convention like PAX than the annual HIMSS conference on medical information technology, and perhaps the same may hold for other similar professions. For jobs like those in medicine where access to social capital depends on having some access to members of the broader labor network through school (if not through other students then perhaps through instructors), attending such a program becomes considerably more important in accessing opportunities through such social capital. That said, in the case of a profession like medicine or law where performing the work requires certification through higher education in the first place, this is a minimal concern in most cases. It could, however, be an issue for foreign workers who, while credentialed, lack social connections in their new home.

Institutions of higher education also provide tools to students and sometimes non-students where access may not be otherwise available. Academic libraries provide extensive and easy access to research material that facilitate labor and innovation—not only academic journals and books, but also music and film (see Dougan, 2016) as well as games (see Harris and Rice, 2008) and programs for students and the community (see Vander Broek and Rodgers, 2015). Schools can provide access to what can be prohibitively expensive software licenses, like Photoshop and statistics software, or business software that is impractical for an individual to own but helps prepare workers for the labor market, such as Salesforce, through less expensive (or free) educational licenses.

Institutions of higher education benefit workers if only by providing free space to work in comfort, as some in the New York City independent games community report.
Naturally, students work with each other at school, but X17 mentions returning to work on games where he got his master’s after graduating. He says, “Even when I didn’t have to be there, I would usually stay or go in anyway because there was space and having a particular space that’s away from where you wake up… it’s conducive to work and also having people around me who are doing about the same thing.” The fact that his school makes work space freely available to him not only makes it possible to find accessible and comfortable work space, but it also puts him in proximity with other game workers, setting the stage for informal contact and development of social capital. This applies to non-students as well at times. X01, for example, organizes a playtesting event in space provided by a university. He explains he just has to ask the person coordinating the rooms if there is space, “Can we come on this day?” and he says, “They’ve always been supportive of me and industry events and they just say yes. Sometimes they’ll say no if there’s something going on, but generally they are pretty cool about it.” He explains he only needs a member of the faculty to attend. This is even easier if X01 uses space provided by a school he adjuncts for: when he was hosting events there, “I was faculty there, so I would just do it.”

Thanks to institutional access to space, funding and staff, institutes of higher education also serve as valuable centers for hosting industry-relevant events. In New York City, a significant amount of the games community centers on events held at or conducted by XNYCC. This includes classes (naturally), weekly playtesting events that are open to the public (both for people looking just to play games and non-students looking to present games for people to playtest), lectures featuring well-known members of the international games industry, annual conferences, student showcases, book
releases, game release parties, game tournaments, and an incubator with space for students and members of the community. At any number of educational institutions, other industries are served by these and similar events like job fairs, seminars, and networking events that provide current and future workers with information, social capital, skills, and job prospects that expand decision making capacity.

In some situations, the institution is not simply a facilitator towards finding work but a gatekeeper that impedes access to outsiders. X12, for instance, discusses how he does not necessarily think that a college degree that is game specific is better than a generic computer science degree, except for the access to networking a specific degree conveys. He says, “It’s been so hard to break into the industry in the first place, especially as someone who didn’t have that many connections. When you have a degree from [a well-known school that specializes in games] or whatever on your resume, it really gives you a visibility that you wouldn’t have with just a BA in CS.” This is obviously all the more true for jobs that require degrees or certifications, which is a significant number of jobs across the American economy; the BLS states that in 2012, 49 million jobs required at least some postsecondary education in order to enter the profession (Richards and Terkanian, 2013, p. 9). For such workers, that education is not simply an option amongst which potential workers can choose; it is the only choice for getting a job.

Institutions do not only open pathways to work elsewhere; in many situations, the schools themselves employ industry workers and former workers as instructors. Courses teaching industry skills are often taught by people who currently or at one point employed those skills professionally, including journalists, television producers, radio
broadcasters, politicians, artists, dancers, poets, game developers, and so on. In some situations, teaching can be a primary way of earning a living. Dana Gioia (1991) describes a feedback loop initialized by the institutionalization of poetry in a rising number of creative writing programs. They produce tens of thousands of new poets and writers without a public market for their work. The people buying new poetry, she explains, are other poets and poetry students. “Not long ago, ’only poets read poetry’ was meant as damning criticism,” she writes; “Now it is a proven marketing strategy.” Of course, teaching has always been an option for many qualified but not otherwise outstanding workers in cultural industries where supply for labor rapidly outpaces demand for product; Becker (1982/2008) notes teaching at all education levels as a common arrangement for artists (p. 96). Caves (2002) suggests that teaching’s professionalization makes access to teaching slightly more challenging, though the increasing emphasis on adjunct faculty at the postsecondary level (see Thedwall, 2008, and Kezar and Maxey, 2012) makes for a very appealing arrangement for workers looking for supplemental income. Such is the case, for example, with three of the people interviewed from the New York City independent games community who, like Gioia’s example, find work as adjuncts at a wide array of programs at schools throughout the city.

While the availability of part-time work for creative professionals through institutions is a positive for decision making capacity in the absence of other work opportunities, these opportunities are part of a larger problem that perpetuates increased competition and poor pay for workers broadly. In chapter 3, the difference between cultural and non-cultural labor was discussed to emphasize the macro-economic
consequences of highly desirable work that result in declining value of labor and product. This is a consequence of not only cultural labor but any form of highly desirable labor, and for students, desirable degrees. If institutions promote majors with unrealistic expectations of in-field job placement, the result is a glut of qualified workers driving market values lower. The BLS summary on graduates with bachelor’s degrees in psychology ([BLS], 2015a) outright states, “Most graduates with a bachelor’s degree in psychology find work in other fields such as business administration, sales, or education.” In the same article, the BLS explains that most people who work in psychology professionally come from doctoral degrees and other advanced postgraduate certifications; most master’s degree programs in psychology “do not require an undergraduate major in psychology.” This is in spite of the fact that in 2011-2012, 109,000 students graduated with psychology bachelor’s degrees ([NCES], 2016). If even a fraction attempt to find jobs in their field (provided they are even qualified without advanced degrees), they will be struggling; in 2008, only 5% of graduates with bachelor’s degrees in psychology were working in the field, and 80% of those were in educational settings ([APA], 2011).

Part-time work is implicated in this issue because institutions may be willing to create majors based not on marketability of degrees upon graduations but incoming student demand. Graduates with no available work find themselves qualified to teach the same programs they graduate from, and so on as Gioia (1991) explains with poetry and creative writing. Members of the independent games community in New York City report being aware of this as the number of programs in New York City offering game-related degrees, especially at the undergraduate level, rise. X02, who graduated from a master’s
program in the city, explores her dissatisfaction with graduates of these games-focused undergraduate degrees amongst members of the community. She talks about how she perceives many of these students as being naïve, “copying what they see without digging into its depths, like there’s going to be a dungeon with treasure chests and there’s going to be a rogue and a mage and a warrior and there’s going to be jewels and hearts and stuff. This all comes from Zelda and Mario and this comes from Dungeons and Dragons and it doesn’t all have to be like this.” Interviewees, many of whom do not have games-related degrees, express concern about the usefulness of games degrees, especially for undergraduates: X03 says, for example, “Things change so quickly, it feels like once you’re at the end of your course, who knows if what you just learned will still be relevant.” X05, like X02, worries that the programs lack a liberal arts scope that makes for great game design: “[Super Mario creator Shigeru] Miyamoto studied industrial design…I just don’t know if it’s good to get [a games degree] if you are a designer at the bachelor level because all you’re bringing to the table then is just games games games games games and nothing else.”

Teaching for these programs provide a degree of funding for otherwise struggling workers, but schools have taken advantage of workers by depending on stables of poorly paid part-time workers rather than better compensated tenure-track positions. This has not gone without notice, either; even at prestigious graduate programs in games, the workers lament the reliance on adjunct employees; X01 explains, “[They] are really taking advantage of adjunct faculty [laughs], but that’s everywhere, even the good places and I think that is just a financial thing.” X05, who has taught for twenty years, explains that where he currently works, “They only have adjuncts. They’re very slick that way. They
don’t have tenure. They don’t have professors.” Not all positions at all schools are non-tenure, of course, but the prominence of non-tenure instructors remains extensive nationally (see Thedwall, 2008). Not only do these workers get paid less and receive fewer benefits and job protections, but part-time lecturers and non-tenure track faculty also do not participate in institutional governance (Kavanaugh, 2000). This means workers have access to opportunities to work—albeit for little pay—but they have none of the opportunities to present opinions in any authoritative fashion towards the institution or department regarding courses, the work they do, or the programs the school delivers for the students and general public.

It is worth recognizing that the lack of involvement in governance extends to most people outside of the institution as well. Apart from members of an institution’s board of directors or, in the case of a public school, high-ranking members of the state government, non-students have no authoritative way to influence programming and other options offered through institutions, aside from protest and personal appeals. Students may have a nominal involvement through participation on governance councils, but the power they have is questionable, and involving students too much in governance can lead to a host of secondary problems (see Menon, 2003). This contrasts with opportunities to participate in planning within unions and professional associations where all members have pathways to leadership positions (at least in theory if not in practice).

**Location and co-presence**

One aspect that must be noted is the significance of co-presence on the impacts of these kinds of community assemblages on worker decision making capacity. Like co-presence in relation to informal contact, while online services for workers who do not
have close physical proximity to other workers are beneficial, they are not a complete
substitute for co-presence. All workers with internet access, regardless of location, have
access to digital opportunities afforded by many different types of organizations, but only
people able to physically reach certain locations gain access to participate in non-digital
events. Networking services provided through a professional association’s website to
connect workers to potential employers, for instance, are accessible to any member, but a
drink night is only available to those able to attend in person.

Some opportunities may leave artifacts behind, offering those who cannot or did
not attend an event to gain information that was provided there and acquire some degree
of decision making capacity accordingly. X02, for example, shows coworkers videos of
talks from GDC using a service that gives access to recorded talks from past years. This
mitigates the lost opportunity for workers not in attendance, and workers may find little
difference between consuming information by physically attending a lecture and
watching the video of the lecture after the fact. That said, these are not identical
experiences; people who watch the video cannot ask questions of the speaker, for
example. Online viewers may be able to leave comments on videos, but not all platforms
will enable this option. Doing so may open opportunities to interact with other viewers or
the lecturer, but those attending an event in person may be more able to interact with
everyone in attendance and not just those that leave remarks afterwards. Alternatively,
other communication platforms may offer richer experiences than what is experienced by
in-person attendees—the ability to “live Tweet” or view different rooms at a convention
simultaneously are unique opportunities for online participation, for instance\textsuperscript{21}—but this will vary between event and communication platform.

Given how extensive digital offerings are, workers who are not clustered around areas with extensive and interconnected networks of organizations and events are not fully disenfranchised from the benefits those assemblages provide. Being unable to attend events in person does, however, leave fewer options for distant workers compared to those present who can not only consume information about events afterwards and participate in online discussion spaces like Facebook groups but attend in person. Digital artifacts and online interactions can provide many of the benefits otherwise acquirable through in-person participation, and one does not need to take advantage of every in-person offering an association presents to network, gain skill, benefit from collective bargaining, and take leadership positions (digital groups need leadership too, after all). Physical presence may not always be a significant issue in some situations, especially for spaces or events where information or feelings might be the focal points; rather, it may only matter that participants (physically collocated or otherwise) experience what Chayko (2008) calls “cognitive resonance” (p. 37). She notes that feeling proximity and presence is not limited to the physical, and so long as participants in an event or community feel connected to those around them, then they too potentially gain decision making capacity by expanding social capital and other resources.

\textsuperscript{21} This is also why people at live events (from a sports match to an academic conference) may use social media even though they are watching and participating in person.
Discrimination and decision making capacity

Community, both formally assembled into organizations and structures and informally drawn together around shared spaces, can be a great asset that provide access to new decision making capacity for a worker. At the same time, these communities can suppress and discriminate along racial, gender, sexual, or other arbitrary lines, stripping opportunities from workers who would otherwise have access to them. This is most apparent in formal policies and structures that proudly discriminate in favor of or in opposition to a particular demographic: laws and corporate policies that allow for firing gay, lesbian and trans employees without cause (Pink, 2001, p. 71; Jahanian and Tannenwald, 2007), golf courses that prohibit female players and contribute to an “old boys” network of perpetually male executives (Janiak, 2003), or simply the absence of legal protection for racial minorities from discriminatory hiring and compensation practices (Uerling, 1993). Such policies have over time come increasingly under scrutiny by corporations and advocacy groups, but while the arc of the moral universe bends toward justice, that arc is unquestionably long.

The concern goes beyond rule of law. Discrimination does not require specific actions and policies to create differences in decision making opportunities for different kinds of workers. Spaces that have specific cultures can make others feel uncomfortable, further establishing the space’s monoculture and cutting off others from resources that might be found there. Hesmondhalgh and Baker (2011) refer to a black camera operator whose coworkers would go to a pub after work. Because pubs can be racialized spaces, his blackness contributes to his not being a “pub person” and becoming an outsider (p. 153). Pervasive feelings and stereotypes about industries and workers can further
disenfranchise otherwise talented individuals from the opportunities available to others. Lent (2016) for instance notes that “Women have been left out of the cartooning workforce for most of comic art’s history,” a fact which male cartoonists suggest derives from women not being aggressive enough for political cartoons, not being dedicated, getting married and starting families, and lacking a sense of humor. Women, in this account, see cartooning as “a male bastion from which they are excluded” (p. 185). It is not a matter of the space being materially prohibitive to women in this case; rather, the culture and history of it is hostile towards women presents an expressive factor that drives them away. It is not simply a problem if a golf club prohibits female players; if executives at a company are male and conduct networking through predominantly male activities like playing golf or visiting strip clubs, this disadvantages those who are put off by these events (Morgan and Martin, 2006). Discrimination can be subconscious as well; Gaddis (2015) notes how employers are less likely to hire applicants with racialized names common to black candidates and if offers are made, they are offered lower starting salaries and less prestigious positions.

Efforts to combat homogenization within industries or particular job positions, and as a result the inequality of decision making capacity among different groups of workers, often take the form of affirmative action or services the serve disadvantaged populations. Such is the case with the 1977 Community Reinvestment Act which serves to encourage lenders to provide loans to underserved members of the community. The U.S. Small Business Administration also offers services such as the 8(a) Business Development program designed to help minority-owned businesses through counseling, training and access to government contracts. For industries and occupations where
women and minorities are underrepresented, public service campaigns and conferences attempt to even out proportions. The Different Games Conference in New York City, for example, seeks to promote diversity in developing a stronger presence beyond white and Asian males in game development by specifically highlighting issues and accomplishments of other demographics. The White House has specifically fostered campaigns to increase the number of women entering the STEM fields (White House, 2016). Firms, and academic institutions particularly, enact hiring practices with an eye towards diversity, though these practices are hotly debated (Antwi-Boasiako, 2008). The impacts of these efforts, many of which have been in practice in the United States for decades, have fallen far short of equal representation, though they represent an earnest effort towards that objective.

**Conclusion**

Taken together, firms, unions, professional associations and institutions of higher education combine to form a patchwork of organizations that can provide a huge array of assets for communities of practice in the creative industries, including networking events, opportunities for skill acquisition and transfer, certification, collective action, lobbying, and space for informal gathering where social capital can develop amongst workers online and offline. Even independent workers who may not have support from firms or unions can still gain decision making capacity through professional associations and educational institutions. Professional associations in particular fill gaps that non-union membership leaves—in the case of the Freelancers Union, quite explicitly—in providing services for professionals that increase decision making capacity. While workers in physical proximity to these spaces may have more frequent opportunities to benefit from
them, those not in attendance have available digital services that offer the possibility of gaining those same services.

Workers benefit most from a full and extensive clustering of service providers, but where services may be absent, workers can fill the voids and provide them. They can unionize, form locals of national and international professional associations, run social events, and pool resources to bring in speakers. If there is a drawback, it is that these all take time and a certain number of workers willing to take action, but benefits for communities do not require massive organizations. Networking can occur between five people at a bar the same as it can amongst thousands at a lecture.

X05 tells a story about the time before the New York City games community came to be what it is now. He says, “There was nothing. When I started off there was nothing, there was literally nothing.” When he and his partner would have lunch with two other people from another independent studio, he says, “I mean, that was a huge event for us, like, ‘We had lunch with [the guys from that company]! It’s so cool!’” Then, a new company came around and the owner worked hard to have developers from around the city meet each other. X05 explains, “They would have a game night every month and a bunch of developers would show up and all of a sudden, where I thought there were no developers, hey! It turns out there’s a bunch of developers in New York and I think that was a really eye opening thing for me.” Now, he says, “It’s like you can’t throw a rock without hitting a game developer, but there were more than I thought and that was really encouraging. I felt like maybe I’m not so insane after all.” X05’s story speaks to both the empowering effect of even a small group of people interacting as well as the fact that it
may take only a few events every once and a while before a community takes shape and the benefits of community appear.
CHAPTER 6: Conclusion

X15 is making independent games. For our interview, he invites me to his apartment which he shares with a number of other younger people who don’t make games. He tells me about how he has his work station in his room arranged. Because he is working on a game made for an obsolete piece of hardware, he can’t take his work with him out of the apartment; the work has to be done there. Some of the work is very particular to his toolchain—the way the different programs he uses work together. While he has someone helping to make music for the game, he discovered that he had to make sound effects himself because it needed to be integrated with specific knowledge of the rest of the tools, and only he could do that.

X15 does not need to do all of this. He has a degree in computer science and was making a generous salary at tech positions in New York City. He did not end up as an independent by accident, nor was he forced into it. It was deliberate, as he explains: “I made enough at [my last corporate job] to not have to worry about money for a bit, and now I’m kind of feeding off the savings in order to do what I want for the time being. I don’t know if it will last forever or I won’t have to go back to that, or if I can trampoline into something more sustainable, so that’s certainly the standing question at the moment.” He explains that his game has recently been released. He says with all of the other labor and costs, he makes a quarter of each game sold back. He estimates he has earned back for himself less than two thousand dollars for all of the time spent developing the game. He did not say how long he spent developing the game, but it seems that he took a significant pay cut to make it.
One might expect a certain degree of dejection from someone whose hard work while otherwise unemployed earns back pennies relative to the time spent on the project, but X15 is quite placid. He made this choice knowing his full range of options, he explains. I ask him about what he would do if he had to look for work tomorrow, and he explains, “I’m certainly not in the situation now where I’m struggling with money or anything like that.” He says maybe he might take some part-time or contract work, but if he ever got sick of making games, he says, “I’d probably go back to making the amount I made at [my last company], six figures.” He is not being presumptuous; his past experience and technical skill make him a strong candidate in New York City. He left a job once and went looking for work after leaving, and he was unemployed for only four months.

X15 works hours that sound insane; he says, “It is typically all day, where I’ll start working shortly after I wake up. Around maybe 9, I’ll actually get started. Sometimes 10. Work until lunch. Work until dinner. If I’m doing something in the evening, do that. If not, just keep working until I go to sleep. It’s been pretty intense.” Yet, he seems more than satisfied with the self-imposed arrangement in contrast to working a “9-5 job” like he used to: “after you’ve finished [your day job], you want to do something else, relax or do a hobby. But given that this is my hobby, I’m able to keep going on it as long as I want.” He can, he wants to, and so he does. Then, when he needs the money or tires of the work, he can go back to what he used to do.

This dissertation begins with a question: what is the relationship between worker decision making capacity and the context of the creative industries in network society. X15’s experience models how complex decision making in the creative industries can be
and how this capacity develops from interdependencies within the labor assemblage. The capacity to make decisions develops from a combination of resources and institutions, integrated into a broader macroeconomic labor marketplace. For X15, what matters to him is the capacity to make decisions more than time or money. He chooses to sacrifice these other resources to keep that agency, but should he want to, he can undo that decision as well. What enables this condition for him is particular to his labor assemblage: he has a desirable degree and highly marketable skills outside of making games, enough savings to be effectively unemployed for a substantial amount of time, a place to live close enough to events for him to attend them, an online shop to sell his game, friends to help make his game and upon whom he can depend for contracts or freelance work in the future, and the desire to make a game, profit be damned. For someone else, perhaps money or time might be more valuable. Perhaps for yet another, he or she may not have the ability to so easily find paying work to subsidize what they want to do. Perhaps someone else lives too far away to attend events and does not meet needed collaborators.

Decision making capacity is a complex resource, one that emerges through a convergence of other elements of the broader work assemblage. While it operates on the personal level, it depends on interconnections between the agent and other structures and resources; change the structures or resources, and worker decision making capacity will change accordingly. Upon viewing work through decision making capacity, the agency of labor comes into focus through discrete moments of choice: which job does a worker choose? Where can he or she work? How many hours of work will there be, and when in the day? What tools will he or she use to do that work, which events are there to attend,
what programs to participate in, what leadership opportunities to take, how independent
does he or she want to be? Focusing on decision making capacity within the work
assemblage directs attention to moments of choice and the viable, meaningful
opportunities to choose that workers have access to and feel interested in pursuing. A
worker with many possible, empowering decision-making opportunities has the luxury to
choose between them, and this is often a meaningful resource. Capacity to make
decisions can be a great asset, and workers have a great “meta-capacity” for defining the
appropriate amount of opportunity for themselves, especially as they grow experienced in
their work, find what approaches work best for them, and stop needing many of the
opportunities and options that might be more important to less experienced workers. With
this experience and the narrowing of what decisions they might see as viable, they gain
the ability to give back, offer expertise and social capital, take what they have learned
and use it to help other workers gain in their own capacities, and make decisions based on
the experiences of those before them.

Focusing on decision making capacity turns attention to the laborer in the world,
the agent within the work assemblage, and encourages a practical, targeted perspective on
worker agency in practice. It encourages a perspective that includes material
considerations on what is possible and expressive components that assess what is
probable and desirable. In that way, it encourages a comprehensive view of work in a
networked context, affected not only by personal desire, ideology and preferences but the
availability of resources like financial capital, time, and social capital with other members
of communities of practice. It situates personal resources within a broader industrial
context, material and political spaces dotted with firms, unions, professional associations,
and institutions of higher educations. This focus situates all of these institutions within the local geography of a worker’s labor assemblage: where the worker lives, where the work spaces are, who lives nearby, how accessible transportation is, as well as what digital networks a worker may access and participate in, and so on. Examining decision making capacity serves to help explore a worker’s agency at discrete moments where agency is expressed in the moment of choice, even when the choice involves choosing to do nothing.

Given how variable a worker’s labor assemblage may be in relation to another and especially in how it may vary in so many categories, it would be wrong to look at decision making capacity as a universal good—every worker approaches the issue differently and should adapt according to what works best for them. Workers who thrive on self-expression and bristle at outside control are wise to be independent when such opportunities are at their disposal, to take advantage of the chance to take greater control over their work at the cost of more risk and responsibility. They gain opportunities to make decisions in some places and lose them in others as they sacrifice time and support from interdependent agents to act separately. Those that enjoy working without the burden of making so many decisions may find independence too stressful, precarious and uncomfortable, preferring traditional employment for its security and stability at the expense of decision making capacity, though how many opportunities workers in the creative industries have for either independent or traditional labor is another issue. Whether decision making capacity as an asset benefits a worker or not depends to a meaningful extent on a worker’s sensibilities and his or her desire for that capacity, as well as the capacity itself provided through the assemblage. If undesirable, this capacity
is inert, like money buried in the back yard. Workers broadly speaking benefit most from opportunities to both exert control through expansive decision making capacity as well as chances to work in more stable, conventional working relationships.

To demonstrate how examining policy through decision making capacity might work, consider the issue of financing in the New York City independent games community. The biggest issue facing members of the independent game making community in New York City is the absence of funding through the work itself. Because the work is predominantly sold in a national/international marketplace in competition with thousands of new games, earning money from these titles is exceptionally difficult (see the discussion on the Indepocalypse in chapter 3 for details). Because earnings from sales are low and game work that pays is infrequent, many workers take other jobs to finance independent projects. One might suggest that a possible solution to the dilemma—that is, that workers cannot make a living making games alone—is to develop a program that offers loans directed at this community, perhaps teach investors more about games and encourage them to fund projects. By looking at the decision making capacities of workers, however, this potential solution seems unlikely to work in most cases. Workers have access to sources of funding through banks already, but the problem with financing games is not the absence of money but the unreliability of returns for untested cultural products. Investments depend on returns and minimizing risk. The glut of product on independent marketplaces means that introducing more funding would not make the product stand out unless a very substantial amount of money for a large advertising campaign were proposed. To dignify that investment, investors would prefer projects that are less risky and more conventional. Thus, such investment would likely
serve only to further the risk-averse practices that contribute to homogenization in game content that have long plagued the mobile marketplaces especially (see Juul, 2010, on homogenization in casual games). If the goal of this policy is to improve the conditions of game makers, it would only do so to those interested in making conventional games—provided, of course, the market for such conventional games remains stable enough to ensure consistent returns on investment.

On the other hand, those producing art or non-commercial games can operate in a different economic environment. Because arts funding derives not only from sale of product but also potentially from government sources (through grants or tax incentives), foundations, private business and individual donations (Preece, 2015), artists have a greater capacity to use money to produce new and exciting work instead of playing safe. Greater funding variety could mean more financial stability and providing artists the capacity to forgo humdrum employment and continue producing art full-time. An increase in grants or even increasing awareness within the community of existing grants that may apply to games might have significant impact on the viability and working conditions of non-commercial game makers. Partnerships between local governments and art game producers could yield projects that benefit local citizens as well. The benefits for non-commercial production relative to commercial development is rendered apparent thanks to the direct connection between financial resources and resulting worker decision making capacity.

Creative industries

The subject of this dissertation is labor in the creative industries and worker decision making capacity within them. What this research suggests, though, is that the
term “creative industries” as presented by Florida (2012) and policy makers following his and similar research is too broad and imprecise to account for the variety of work and working contexts held within it. At its core, the only thing that holds “creative industries” together is that the work involves mental or intangible labor, and while this affects decision making in labor, it is not enough to rope the industries together in most discussions of decision making capacity.

It can be helpful, though, to discuss the creative industries as such to explore how workers choose or do not choose the context of work—when and where to work, how often, and so forth. Because creative labor is less bound to specific machines locked down in a specific place or necessarily bound to co-presence, creative work in network society is more often unbound from the temporal and spatial demands that characterize work both in other industries and earlier eras. Facilitated by highly efficient and inexpensive networking tools and portable technology, work can be done outside of the office and outside of office hours: typing on a laptop on the subway, talking on a cellphone in the car, collaborating on documents stored in the cloud. This contributes to increased opportunities for independence (in small ways, like working from home once in a while, or large ways, like starting a small business instead of seeking traditional employment) by creative workers who can do more work alone than they could before, but it also helps contribute to expanding and malleable work days. By viewing this technological shift in regards to worker decision making capacity, it becomes possible to understand the practical, and not merely the ideological, reasons why a worker might choose to work after hours or work from home when this was uncommon previously. This perspective not only contextualizes why some workers choose more precarious work
but also why they have done so increasingly now. For many workers, it is simply because now they can where they could not before.

Beyond this aspect of creative work, the term “creative industries” is less effective for comparing worker decision making capacity across industries because considerable divisions make even similar (perhaps identical) work in different industries contribute to very different experiences of worker decision making capacity. Principally, this dissertation focuses on the distinction between cultural labor (music, theater, games, film) and non-cultural creative labor (business software development, accounting, law, project management). The division is actually more precise than this, as even non-cultural workers in cultural industries, like gaffers in the film industry, may behave more like cultural workers than non-cultural creative workers. The specific division is rather between more-desirable and less-desirable labor, which primarily contributes to the division between cultural and non-cultural labor because cultural work is so strongly preferred and, accordingly, less financially valued. However, as explored in chapter 4, certain non-cultural work can be highly desirable as well, especially tech sector work in Silicon Valley.

When work is highly desirable, it attracts more workers who will work for less than they might at less desirable jobs. This is doubly true for labor that produces a marketable product, as in game development, music, poetry, or film. The more people are willing and able to create a product beyond the market’s capacity to absorb that product, the less valuable the products of that labor become. What keeps these prices down where other industries might cut production is that cultural work is desirable to do in its own
right (within certain markets\textsuperscript{22}) and people will work for close to nothing—or nothing at all.

This is, to an extent, a natural condition of capitalism; desirable creative jobs, provided they are increasingly lauded in the public imagination, widely accessible, easy to learn and perform, and their products easily distributable for money, will create these monetarily unfavorable scenarios in their labor marketplaces. It is important, though, to recognize that while this may be a recent evolution within an industry like independent games specifically, this has been the case for some time for other media. In the music industry, 2002 data (Christman, 2003) suggests the average independent album sold anywhere from 1,300 to 1,700 copies (and this larger figure excludes albums that sold fewer than 500 copies). Of independent albums that year, only two sold more than half a million copies. In one rough estimate of book sales, Rich (2010) explains, “[O]f 1,000 business books released last year, Codex Group, a publishing consultant, found that only 62 sold more than 5,000 copies.” Another estimate suggests, “The average U.S. nonfiction book is now selling less than 250 copies per year and less than 2,000 copies over its lifetime” (Piersanti, 2014). While solid statistics for YouTube are sparse, one article (Marshall, 2015) estimates that 5% of videos on YouTube account for 95% of views, which translates to 95% of videos having fewer than 10,000 views. From a monetary perspective, 10,000 views earns somewhere between $20 and $100 (Reemer, 2014). The one industry that follows a different scale is film; again, numbers are difficult

\textsuperscript{22} This statement applies most explicitly to work that can be done cheaply; theatrical film production is so expensive that it almost universally requires outside financing, and that has an effect on over-production because financiers are more likely driven by a profit motive. If someone can create and release an album for free, this moderating profit motive ceases to be a factor. It is also why low-budget films released on DVD are plentiful compared to theatrical film.
to find, but the data remain consistent with other industries. Statistics from Sundance (Leipzig, 2015) indicate, “Getting distribution is easier today because of the digital explosion, but along with that has come a price implosion.” Leipzig specifically points out, “As it was last year, most of the distribution deals in 2015 will be digital-only, and most will be for extremely low numbers: $25,000, $10,000, and in some cases zero — literally zero dollars, with the promise of financial participation based on sales.” This might not seem too bad, given the numbers in other industries, except for the fact that the average budget for one of these films is between $400,000 and $1.7 million, depending on the kind of film. The author of the article flatly states that being an independent film investor (never mind creator) “is a precipitously risky business proposition, given the small chance of recouping an investment unless you can control marketing and distribution yourself, in effect behaving like a mini-studio.” In other words, for a creator’s project to more reliably earn money, the creator needs to sacrifice decision making capacity to the financier.

The economic conditions that underlie worker control over work-related decisions in network society fundamentally depend on the markets for the goods produced and the desirability of jobs. The core of this is the supply of product and labor spurred by increased access to information and tools in network society. Thus, the same qualities of the labor environment that facilitate diversity, easy access, and the diminished power of gatekeeping simultaneously destabilize and overcrowd product and labor markets. Is it possible to recapture financial stability in media production for all workers? This is unlikely. The products are only getting easier to make and less expensive, and the information on how to make them is also more available than ever.
There are ways to mitigate the damage, but they come at costs as well, especially to labor’s control over work. One way is to enhance vertical differentiation of products—what Caves (2002) calls the A-list B-list property. The terminology is commonplace with actors—people speak of “A-list” or “B-list” actors frequently—but it applies to all cultural work: there are certain workers or products that are considered “better” than others. Those that are better are considered more valuable and people can charge a premium for that perceived value. This exists in all media, games included, through varying mechanisms. In film, some may see the distinction between indie and mainstream films, though perhaps the better distinction for workers is between theatrical film and straight-to-DVD or streaming, or union and non-union productions. The value of a theatrical film, perhaps by virtue of being considered worthy of being on the big screen, dignifies paying ticket prices, whereas those that go straight to streaming or DVD are the literal “B-movies” that are worth less (but not necessarily worthless). Literature too distinguishes between mainstream publishing houses and small independents or digital-only volumes. In games, as in movies, there is typically some differentiation between indie and mainstream (though which is the A-list and which the B in terms of quality depends on the consumer’s ideology). This allows producers of mainstream fair to compete primarily with other mainstream releases, charging significantly more for games than independents can, who compete amongst each other and charge less for their titles.

From here, the problem with games as opposed to film is clearer. Where film further differentiates the worthy from unworthy independent films based on who acquires distribution at film festivals, there is less significant differentiation among independent games of varying qualities. The low barrier to distribution in contrast to film means there
is no need for the gatekeeping that creates the differentiation of quality to become apparent. There are still some markers of difference between independent games, of course. There are award winners and nominees who can leverage that recognition in marketing material. Games may gain attention through the press (related to awards or not) which can help earn the attention needed to distinguish the game from a multitude of similar titles being released (not that this has anything to do with a game’s quality—only attention it earns). Other than effective marketing though, there is little workers can do in the current markets.

The Gamergate controversy’s effect on the perception of gaming press is notable and has likely contributed to the increased invisibility of trusted cultural curators for typical consumers that might help to address this problem in the market. While the term “Gamergate” and its associated Twitter hashtag have become synonymous with a grassroots anti-feminist backlash against female and LGBT game creators and critics, at least one of its stated objectives is a pointed critique of perceived corruption in the mainstream games journalism industry (see Chess and Shaw, 2015). The term first appears in response to a scandal over developer Zoe Quinn who had been publically accused of sleeping with a reviewer at the gaming website, Kotaku (in spite of the fact that the reviewer in question was not responsible for reviewing Quinn’s game on the site). The appearance of a conflict of interest caused considerable anger in particular segments of the player community, but this event is more appropriately the straw that broke the camel’s back rather than the singular event that created the backlash.

At least two other high-profile events precede the Quinn incident. As Foxman and Nieborg (2016) detail, a member of GameSpot’s editorial staff was fired in 2007
following a particularly negative review of a game published by a company that heavily advertised on GameSpot’s website. Then, in 2012, came the “Doritogate” controversy which, again, called into question the relationship between press and publishers. A Kotaku article on the matter (Totilo, 2012) notes it was a multifaceted fiasco of inappropriate behavior, including press tweeting promotional material in hopes of winning a free Playstation 3, legal threats intended to quash reporting on the impropriety of such promotion and a series of missing comments and resume by-lines that stink of a cover-up. However, the core of the controversy, and its name-sake, was an instance in which GTTV host Geoff Keighley conducted interviews surrounded by Doritos, Mountain Dew, and ads for *Halo 4*. The defeated look on Keighley’s face became a meme around the internet representative of the press’s uncomfortable proximity to those providing what they are otherwise supposed to be reviewing objectively. Suspicion of the gaming press, though, is hardly new: as Totilo (2012) writes, “A games reporter who hasn’t at some point in their career reported about some sort of games journalism fiasco… is like a reporter in Anchorage who hasn’t found an opportunity yet to mention the snow.” Given this climate of mistrust, it is reasonable to imagine why game players in particular would be suspicious of those responsible for helping differentiate games based on quality.

There is also an issue of evaluations themselves. What ostensibly differentiates games that are on the A-list from those on the B-list are ratings—stars on marketplaces or Metacritic scores reduced to unsubtle percentages. Consider the opening line from the *Wall Street Journal* on the subject: “Movies have Roger Ebert. Wine has Robert Parker. Videogames have Marc Doyle [co-founder of Metacritic]” (Wingfield, 2007). Whereas
film and wine have singular respected opinions to guide consumers through the chaff, the article points out a person who is singularly uninvolved: the product is a compiler of outside reported scores. On mobile, the marketplaces are dependent on star-based scoring, and the incredible pace of releases make it literally impossible for a player to review all of the releases as they arrive. Steam, which once released games relatively slowly and enabled each game time for evaluation (along with the benefit of less competition from other new releases), now releases as much as three times as many games as it did prior to 2013 (Savchenko, 2015). This is more stable and less competitive than mobile, but this comes at the cost of gatekeeping (less than it used to be prior to Steam Greenlight’s introduction, but it is gatekeeping nevertheless).

One obvious solution for the games industry is to do as other industries do: introduce more gatekeeping to provide a more manageable amount of games for typical consumers and press to review. Steam, which already has gatekeeping dictating which games it will distribute, can do this most easily by returning the number of releases to earlier, smaller amounts. The mobile marketplaces face a much stronger challenge, having thus far been relatively uninvolved with gatekeeping beyond some technical requirements. Perhaps it could be as simple as creating curated lists of respected new titles. This is supposed to be the purpose of “featured” games, but some interviewees in the New York City games community personally feel the feature is rigged in favor of the major game publishers and branded properties that need featured status least. While reintroducing stronger gatekeeping would help make many quality titles become visible and fight overcrowding, it would come at the expense of accessibility. The very idea of gatekeeping means that an elite few will more or less decide the value of a product. The
way these markets are now, at least one can say that bad games will still fail and great
games will still succeed; gatekeepers with different opinions may quash a game that
could otherwise succeed in the current market. It also flies directly against the goal of
increasing diversity and accessibility in game production; the fewer people diminishing
access to the system, the better.

This said, it may not be necessary to choose between accessibility and financial
success so starkly. The idea of the A-list and B-list is not that there is an A list and
nothing else is visible—a point seen specifically in the literary publishing market. The A-
list remains the major publishing houses: their products are widely distributed, earn the
most praise, and have the highest chances of financial success. Below the A-list, there
remain places for distribution, including opportunities to earn money. The rise in the e-
book marketplaces for Amazon and other e-readers, like the emergence of digital
distribution in games, provides a very low cost alternative to an otherwise very expensive
and risky scenario. Much like games now, there is no writing that cannot be published in
one form or another. Games too can benefit from this. Increasing the gatekeeping to
create a more effective and clear A/B/C list does not mean that anything in the D-list
cannot be published. There is and should continue to be available publishing
opportunities for all games. Chances of discovery may be poor, but they will exist: the
fact that 50 Shades of Grey began as fan fiction published for free and went on to become
a massive success indicates as much is possible for games even if they are relegated to a
less prestigious position in a hierarchy of quality. Workers stand to lose no less control
over their work from this arrangement.
What then of products outside of the market, like art games or performance art? Some industries live and die by the availability of public subsidy—such is the nature of the Opera in New York as well as many of the museums as well. Games, perhaps by virtue of their relative novelty, have yet to benefit significantly from the funding stream that sustains so many other workers in other media. The streams that should be accessible, at least in New York City, simply are not there for most people. There are a few entities like Indiefund or No Quarter which provide funding, but they are highly inaccessible and do not depend on submissions: if the gatekeepers do not know someone, they will not be chosen to receive funding. There are no programs at the state or federal level that meaningfully provide funds to small development teams or individual game makers, and while this would be greatly impactful, the country’s diminished appetite for public financing of the arts (see Stubbs, 2014) leaves this an unlikely possibility in this political climate. Progress can be made at the local level: in New York State, State Senator Martin Golden (2014) has held ongoing inquiries into expanding the game industry in New York State, though nothing has thus far escaped committee. If anything, states can learn from Connecticut’s tax incentive system which X01 reports benefiting from significantly.

Worth remembering is that what works for games, and what may benefit people making games in New York City in particular, may not apply to other workers in other industries. Other fields may have more trusted product evaluation systems, more effective non-market funding schemes, a greater number of labor organizations, and healthier labor markets. Other industries may contend with more rules and regulations, greater oversight by industry associations or government, or have greater access to public or private
financing. While the greatest difference for decision making capacity experiences relates to the differences between desirable and less-desirable jobs, every industry is slightly different and how industry actors operate differ from space to space.

In discussing the decision making process that goes into producing a product, the experience for a cultural producer is very different than most non-cultural workers. They are more often guided by love of the work and less by financial compensation. They see the work as risky and take chances because, as Caves (2002) describes, nobody knows which cultural products will succeed and which will not. To combine analysis of cultural work with other industries that lack the macro-economic consequences of desirability overlooks significant differences in how labor treats work in cultural spaces and how decision making takes place. This matter concerns other kinds of desirable work as well, a fact that in part explains the financially irrational behavior of hardcore hobbyists or collectors as well as workers looking to break into desirable companies like those in Silicon Valley. Like many cultural workers, those interested in entering those positions might need to put in free labor first (perhaps by starting a new company, developing an app without monetization, or, commonly, participating in an unpaid internship). What differentiates many of these workers is that their behavior more predictably contributes to future employment, while there is less probability that experience in a cultural profession will reliably result in a living wage as a consequence.

If there is a broader policy implication for this important division between highly desirable and less desirable work, it is that “creative industries” is a poor division for the basis of policy-making, unless it is directed at the issues around the context of work which are common to all creative industries. No policy can require all workers in all
creative industries to work in offices, for instance—not all firms have offices, not all creative workers are employees, not all of them prefer offices, etc. However, it might be very helpful for some workers to more actively monitor their own productivity to help better manage work time in the absence of input from a separate project manager. If a worker knows what time of the day she is most productive, she can help plan a schedule in which those productive hours are reserved whenever possible for important work while scheduling meetings or other less mentally demanding work in less productive time slots. This not only can help workers be more productive in fewer hours but ensure that those work hours are comfortable and do not extend beyond a reasonable boundaries. On the other hand, employers regardless of the kind of work they do should be attentive to work hours and put serious consideration into the importance of project management not only for the reliable delivery of products but also the work-life balance of employees.

**Independent labor in “creative industries”**

There is another division to consider: traditional employment and independence. Chapter 2 explains how independence is less a state than a position on a continuum—no worker is ever truly independent—but even a relatively minor difference such as between an employee and independent contractor introduces a host of new decisions, limitations, and opportunities for independent workers relative to their traditionally employed counterparts, even if the two do identical work. No longer given requirements for when and where to work, independents gain access to decisions that employees might not get. They may have choices for what tools or techniques to use and who to work with, have greater need for social capital and different financial capital demands. The experiences of independents are not just different but meaningfully so, as they change the relationship
between the worker and other agencies within the work assemblage, limiting access within some while opening opportunities to make choices elsewhere. It involves being liberated from entanglement in some respects and forcibly divided from empowering opportunities elsewhere.

While aspects of independent work are similar to traditional work in practice, the context and motivations for that work can be radically different. Recognizing and attending to the different experiences of workers of different levels of independence in a given field are necessary to accurately gauge the decision making processes of those workers and propose policies to better their working conditions. What this research suggests is that rather than discussing the work assemblage in the creative industries, it is important to be more focused on more specific categories: how independent are these workers? How generally desirable is the work? How accessible is independence compared to traditional employment for a given job or industry?

Consider the conditions of someone who paints houses compared to someone who paints large murals. Much of the work is the same: both require a wall, paints, brushes, ladders, experience and contracts. To look at decision making capacity requires a much broader consideration of each worker’s relationship to other agents in the work assemblage. Does the house painter have a client? Is the artist making a commissioned piece or something entirely original? Is the house painter provided paint by the homeowner or did that worker buy it himself? How much competition does each worker experience in their local market? Each of these questions relates to a different aspect of a worker’s decision making capacity. To design a policy, for instance, to make a house painter’s life easier, it might help to have homeowners always provide the paint, but the
same policy might be ill-fitting for the mural painter who would disapprove of using cheaper, low-quality materials that a budget-conscious client might prefer.

Independence does not mean complete isolation, and different forms of community remain influential in the decision making process for independent workers as well as traditionally employed workers. The prominence of independence and technology facilitating a more mobile, precarious “creative” labor force does not mean a diminution of community or resources fostered by communities. It does tie into the disruption of the value of unions specifically who, according to United States law, cannot apply to independent contractors the way they do to the traditionally employed, but there are many industries that are legally able to unionize that have not yet done so, such as software developers and project managers. Perhaps this work does call for a new kind of organization, less focused on one-size-fits-all contract negotiations that are ill-suited for workers who are increasingly independent. If associations could instead argue in favor of maximum weekly and daily work hours, this would be a very important start to reclaiming protections for workers without union representation. It would also help, of course, if companies were less able to demonize and fire workers attempting to unionize, and it falls upon government to enforce the legality of unionization.

This addresses only part of the concern, given that independents are legally incompatible with the legal structure of unionization in the United States. There is an important secondary consideration that applies especially to independents but not exclusively: because work can be taken anywhere at any time, there is for some an incentive to do so. Unions or contracts that mandate specific work hours function to preventing employers from exploiting workers, not to stop workers on their own working
beyond traditional hours and spaces. Workers should not necessarily be prevented (however that could even be done) from working more. There are, as chapter 3 explores, quite rational reasons to do so, including attempts to meet immovable deadlines, frontload labor, or take advantage of a worker’s inherent work drive in the hours that suit them best. To suggest that workers are exploiting themselves by working longer takes no consideration of practical matters that help workers decide how long they will work and ignores potential benefits workers may find in doing so.

With that said, workers can and do take this too far. It may take years for a worker to realize that the constant stress and anxiety caused by excessive work takes a toll on health and relationships. Some of this can tie to the ideologies of work fostered by companies that benefit from overwork without additional pay (or, companies that believe they benefit from overwork at least). Companies that can afford to have workers work less and choose to encourage long hours do so at a moral and potentially economic cost in the long-run as workers not only do lower quality work under those conditions much of the time but workers also increasingly reject those businesses in favor of those that are more reasonable employers.

Yet, the acceptance of overwork should be addressed early on as the prominence of self-directed work becomes increasingly common. Perhaps students in high school should be given better instruction on time management and project management techniques that later on help professionals size, scope and pace work in healthy ways. Perhaps this might involve students timing how long it takes to complete a number of math problems, determine how long it takes to complete the average problem, and then figure out how long it would take to complete a certain number of problems in a row.
Students could then proceed to plan when in their day they are most likely to have the time to complete that work. This would prepare them as workers for times when they will need to determine how much work they have to do and how to parse the work out over time to complete it in a healthy way. Gone for many workers is the work day set by an employer, and schools can do more to prepare future workers for situations in which they will need to organize and plan their own work schedules and workloads. The mentality of the “all-nighter” and cramming is pervasive and can set dangerous precedents as people begin their careers. Workers who have for years been overworking themselves need to train themselves to stop and more can be done to prevent this from beginning in the first place with proper education.

Independence may be a growing characteristic of work in the overly-broad “creative industries,” but it is inappropriate to openly encourage it on the national level without critical thought. The transition to independence many workers experience is not driven by a single cause. It is not purely ideological or a characteristic of a generation that opposes the stability of traditional work. It is not simply the result of declining costs of entry for independent businesses either. It is likewise not just the decline of stable industries, driving workers into less costly independent arrangements. It is a combination of all of these factors, varying by industry and job. Independence within certain industries could invite growth and creativity, while in others it could create competition over an insufficient demand for labor. Independent workers in different industries have very different experiences of decision making capacity because of the factors that contribute to an individual’s decision to be independent.
That is not to say that there is nothing that can and should be done to improve the conditions for independents generally. The Affordable Care Act, for all its good, is insufficient for independents who find themselves in insurance coverage gaps. Plans can be expensive and incomes incompatible with social services designed to support the poor. Independent workers should not feel that the best option they have is to depend on a spouse with a full-time job to be on their insurance. This all completely sidesteps the issue of the massive complexity involved in acquiring health insurance—complexity such that a number of people eligible for insurance simply forget to get it and cannot figure out how to do so. Independents would benefit substantially under a single-payer system that no longer put any consideration into a worker’s often mercurial employment status.

To the same effect, much could be done to simplify the tax code in the United States to the benefit of non-traditional workers (and, frankly, traditionally employed ones as well). Independents first getting their start are especially vulnerable, having perhaps only ever paid taxes on traditional income, only to learn that as independents, they are meant to file quarterly, to manage expenses in detail, to know and understand a tax code too arcane to approach without costly professional assistance. Of course, government or professional associations could provide workers with better access to tax professionals or provide more information to individuals about doing their own taxes, but this serves to put a bandage on a broken bone, diverting money from workers who should be able to submit taxes alone much of the time. It is a considerable irony that independent workers should find themselves so dependent on the accounting industry.
Decision making capacity and industry difference

This dissertation studies particularly decision making capacity with respect to two particular contexts: firstly the industries classified as creative industries, and secondly, network society. As a result, the conclusions about how worker decision making capacity develops and operates should hold for those populations in this kind of networked existence. With that stated, the research does identify a number of ways in which particulars of a given industry, space, or community may greatly affect how decision making capacity emerges and operates. This is not a way of saying that these results are inaccurate in describing this capacity across industries—indeed, the last two sections of this chapter have concerned areas in which varied industries are consistent. Rather, it serves to acknowledge that even with these similarities across desirable, undesirable, traditional and independent work, industry conditions cannot be predicted and must be attended to.

This is especially the case in regards to technology, the availability of knowledge, and other preconditions to the access of work. While creative labor in network society is in general increasingly accessible, this is not going to be equally so across all jobs and industries. In applying this research towards a study of a particular working community, one must consider the components of the network that vary from industry to industry: where can a worker learn the skills needed to perform the job, how accessible is equipment to use for training (can the worker rent or purchase it? Can the worker use someone else’s equipment or must they get their own?), how much does training cost and how expensive are tools? This contributes to significant differences between, say, the capacities of a would-be film worker (whose equipment can be quite expensive) and a
poet (whose equipment is not). That said, this is a consistent property of creative labor and decision making capacity, regardless of industry.

In this same way, the location of work may affect decision making capacity as well, but while the exact way this plays out in one community versus another is less predictable, the fact that location matters is consistent. In regards to the case study, it is significant that there are few mainstream game studios in the New York metro area. This contrasts with communities in the Bay Area, Austin, Boston, and Vancouver where not only are game development educational programs available (as is the case in New York City) but so are established development studios at which graduates can work. This can potentially shape the ways instruction priorities form at educational institutions in particular areas; the absence of industry partners relative to other areas might contribute to a less commercially-focused program in New York City in relation to a much more industry-oriented approach at a Seattle-based school in close proximity to many studios.

There are other geographical eccentricities as well to consider, including various tax cuts and incentives, the presence of other workers, the size and activity level of professional associations and unions, the cost of living and access to public transportation. These factors should be considered in any study of worker decision making capacity, and in attempts to compare dissimilar settings, these kinds of factors should be put into consideration.

**Looking beyond creative labor and network society**

One might further extend this research beyond the scope of network society, as the basic premise holds that a significant part of how decision making capacity develops is the accessibility of labor. If one were to consider, for instance, the difference between
pre-digital and digital journalism, one could still discuss decision making capacity in
similar terms. One merely has to account for substantial and hugely impactful changes to
the culture, market, and technology of that industry that have changed in network society.
One might, for instance, consider the difficulties involved with retracting a story after it
has gone to print (a task far easier for digital content than newspapers; it is hard to
imagine a contemporary “Dewey defeats Truman” that lasts long enough for Truman to
show the error to photographers). Even the practices of making games ten or twenty years
apart might be examined in this way. Compared to accounts by Kerr (2006), access to
publication has never been easier because the costs of development kits has drastically
decreased in the intervening years, as has the cost of publication (which for digital games
is essentially zero).

It may be more difficult to apply this research beyond creative labor into service
or manufacturing work. Much of this research depends on the kinds of freedom that Neo-
Taylorism and strict workplace efficiency is designed to eliminate in disciplining
workers. Similarly, because much service and manufacturing work remains bound to
discrete workplaces, discussions of how workers choose when and where to work
become pointless. A steel worker does not get to choose whether to work at the site or at
home; there is only one foundry, one elaborate network of pipes, trucks, and raw
materials. A fast-food worker cannot cook burgers or serve them from home. Such
workers have decision making capacity in other areas of work, but the conditions of that
labor are different enough that comparisons require a tremendous amount additional
consideration.
The future of choice and creativity

Creative workers, broadly speaking, have entered an age where more and more workers have more choices in their work than before. In many instances, these are new opportunities opened by technology and seized upon enthusiastically by workers themselves, driving workers away from the central office and the dependence on traditional firms. In other situations, these are choices workers must make to respond to the loss of protections and benefits that once stable industries used to provide. Where do things go from here?

In some respects, the proliferation of professional associations filling gaps for independents and non-union workers suggests a trend towards novel modes of collectivity. Florida (2012) focuses on socialization for contingent workers, an event-based lifestyle that accommodates variable schedules, but socialization is happening in work itself. People are not simply acquiescing to loneliness and isolation; they are getting together and forming groups, participating in events connected to their work, and forming online communities and attachments. The successes of coworking spaces and the further proliferation of new creative businesses suggests a turn towards collaboration between workers and firms in ways that can be mutually beneficial rather than parasitic. This may be particularly true for an industry such as independent game production where banding together, pooling resources, and sharing profits may not only mitigate the problems caused by over-production but the unequal distribution of wealth along the long tail of makers. To be sure, workers are not staying put, working only with what they have. They have opportunities to act within the labor assemblage but also to create new structures
within it. When new opportunities to act arrive, there is no doubt that workers in the creative industries will take them.
APPENDIX A: Case Study Overview and Terminology

The case study conducted for this dissertation consists of 21 interviews conducted during the spring and summer of 2015 with members of the New York City independent game making community, in addition to participant observation of various community events held during that time. While it is common to refer to this kind of space as a “development community,” the inclusion of not only programmers (i.e. engineers or developers) but also designers and producers in the sample calls for a more generic term—thus, “game making community.” An equal number of people interviewed, 15, report performing development work as report performing design work, with 11 people saying they do both development and design work to some extent. Two participants describe being producers exclusively, and four others say they perform the work of producers in addition to development and/or design.

Of the 21 interviewees, all but one reports having a post-secondary degree. Two participants have associate’s degrees as their highest credential, and 18 participants have at least a bachelor’s degree. Of them, 8 have master’s degrees. None of them are current students, though five of them received games related master’s degrees from schools in New York City.

All but two interviewees live or work within the five boroughs of New York City: Manhattan, the Bronx, Queens, Brooklyn, and Staten Island. Of the interviewees, 11 live in Brooklyn, 4 live in Manhattan (all in various neighborhoods on the Upper West Side), 2 live in Queens, and 4 live outside of the city. None of those interviewed report living in the Bronx or Staten Island. Only one interviewee does not live or work in the New York City metro area, though this interviewee did so for a few years and left the area only
shortly before the interview. I spoke to this individual over Skype, but all twenty other participants in the case study were interviewed in person, either in their homes, workplaces, or cafes.

Interviews were largely unstructured but focused attention on what work interviewees do, how they do it, and what other possible ways to do that work they could describe. Interviews were recorded and subsequently transcribed onto text documents. Transcriptions were incorporated into NVivo, where the interviews were analyzed by theme. Efforts to maintain the colloquial tone of interviews have been made, though confidential information has been expurgated any quotes published in this dissertation. Sentences have been altered grammatically in some instances (false-starts and stuttering have been removed, for instance) in order to preserve readability without sacrificing the original intent of the interviewee’s statements.

The sample consists of 16 male workers, 4 female workers, and one individual who declined to state a gender. Their ages range from 27 to 47, with an average age (arithmetic mean) of 32.25 years old. Participants claim to have worked in games anywhere between 1 year and 18 years; the average number of years working (arithmetic mean) is 5.9 years and the median number of years working is 3 years. All but 4 participants state that they have worked in New York City for the entirety of their time making games.

In order to maintain confidentiality of participants, the names of interviewees and the majority of institutions and organizations they refer to within the New York City game making community are concealed. Instead of using names of participants, any references to them are labeled in order of when they were originally interviewed, from
X01 to X21. There is no significance to the numbering or reference between the content of interviews and an interviewee’s assigned number. Additionally, schools and professional associations have been made confidential as well in order to ensure confidentiality of participants. Where specified, they are named as follows:

XORG: A professional association that offers classes for skills useful for independent game makers. This organization also offers events that allow independents to playtest or showcase games before each other and the public.

XART: An association/collective that hosts events focused on art and non-commercial games.

XGGG: A branch of a national professional association focused on independent game makers. It hosts employment-oriented events, talk sessions, and other events hosted and attended by members of the local community.

XINDIECON: A large convention that celebrates independent games, held in New York City annually. It is attended by game makers and the general public.

XDEVCON: An annual conference that focuses on game development, attended predominantly by members of the game development community and less by the general public.

XNYCC: A large, private university in New York City which is often the hub for various events within the community.
APPENDIX B: The Labor of Independent Game Making in New York City

The purpose of this appendix is to provide detailed description of the labor conducted by members of the New York City independent game making community which composes the case study at the core of this dissertation research. Specifically, it serves to provide detailed descriptions of the work people report doing as organized by task cluster. This appendix serves to provide important context and details of the specific work found in the case study that may help further elaborate on the conditions of labor described throughout the dissertation. The appendix is arranged by clusters of tasks: game development, game design, project management, distribution management, public relations and marketing, and asset creation. Within each cluster are descriptions of the various technologies and techniques employed in performing the work, how workers decide which tools and techniques to use, and how workers learn about tools and techniques. This appendix especially emphasizes the number of potential options workers describe for performing work and individual tasks within that work. Comparisons between this data and data from other studies of independent or mainstream game making communities are minimal and serve primarily to emphasize key aspects of the case study data; this section serves to present the data as described by members of the New York City independent game making community alone, and more substantial comparisons to other data are reserved for the dissertation proper.
Game Development

Naturally, the process of making a game requires someone to literally develop it—take the concept, put it into code, and produce a “build” that runs at the end that can then be distributed. In making a video game, the job of game development is literally essential, but interviewees reveal a remarkable wealth of potential approaches to development from which they can choose, provided they have a substantial role in making that decision and do not, for instance, come to work on a project after it has already been started. Developers can choose from a large number of programming languages or language substitutes as well as different development engines that provide basic libraries and an organized environment in which to work. Developers may choose to focus either on systems (like coding shaders, collision, or level loading) or gameplay (like placing objects in a room and implementing the systems coded by others), but they may choose to do both as well.

Programming languages

Interviewees report a variety of possible programming languages available to write code for their games. The most commonly reported languages people know, use or have used were C#, C, C++, Objective C, JavaScript (JS), HTML5, ActionScript 3 (AS3), and Java. These only scratch the surface of all of the possible languages available; interviewees also mentioned knowing or using Unityscript (a language native to the Unity Engine), ActionScript 2 (which AS3 replaced in 2006), GML (a native language to the Gamemaker engine), different versions of BASIC, Pascal, and even some versions of Assembly. The list is likely incomplete; many experienced developers report knowing a considerable number of languages and struggle to name all of the ones they know or have
worked with. When I asked X05 to list the languages he knew, he responded exhaustingly, “Wow. You want the whole list?” Even after listing nine languages off the top of his head, he remembered three others that hadn’t occurred to him first: “Oh, that’s another one I know, Objective C… I’m sure there’s a few that I forgot. BASIC, right? Like, that’s my first language. Pascal, Object Pascal....”

Interviewees also report using what they sometimes called “scripting languages.” This includes Bash, Go, PHP, Perl, Ruby, Python, Lua, XML, AGS Script (the scripting language used in the AGS engine) and possibly Lisp (which is both dynamic and compiled, a distinction that possible matters). The distinction between programming languages people refer to as scripting languages and those that they do not call scripting languages is unclear. Generally, internet sources distinguish scripting languages from “compiled languages” in that the former can be “interpreted” step by step at runtime while the later must be compiled (translated into machine code) before the code can be run (see Beal, 2016, or Rouse, 2016). That said, a language like JavaScript is technically a scripting language, but interviewees treat it as a compiled language, lumping it together with C# and Objective C.

Some of the interviewees who say in one breath that they do not know any programming languages admit to knowing and using scripting languages the next. When I asked X08 if he knew any languages, he responded “Not really,” except that he admits to using AGS Script, which he describes as “kind of a C++ variant, but I know the concepts. I took some programming classes in college, so I know the basics. But I don’t know much else.” X09 has a similar view that scripting is not really programming: “I’m
not a programmer. I understand and I’ve worked in HTML\textsuperscript{23} and XML and basic Lua scripting, level editors and things of that nature.” At the same time, interviewees sometimes talked about scripting without the use of code, using interface options provided by different engine environments. The game X10 had been working on is made in Construct 2 which he says “doesn’t involve actual coding…but there’s coding like behavior by moving these blocks around to create scripting.” X11 and X17 also have experience using Construct 2. Experienced developers who primarily use languages like C# or HTML to develop a game report using scripting languages along the way. At the same time, some note that “scripting languages” can be used alone to build games (the aforementioned use of JavaScript notwithstanding). X21 notes that Ruby can be used to make text adventure games, and X18 mentions making text-adventure games in Python when she started learning how to code. What the broader discussion of languages reveals is that not only are there a striking number of potential languages to use, but that it is possible to develop a game using both compiled and interpreted languages, as well as both together. Furthermore, developers can use and combine different languages in different ways; one can make an entire game using Ruby or use it for scripting on top of a system coded in C#.

**Game engines**

Another key aspect of the development process for most developers is using a game engine. A game engine is a software system designed to facilitate game development and distribution. It provides a streamlined set of tools and code libraries that

\textsuperscript{23} HTML’s status as what is called a markup language is seemingly connected to its being treated as both a compiled programming language like C++ and also as a scripting language like XML or Lua—even though HTML is not a necessarily a scripting language.
simplify and speed up the process of creating games by providing users with preexisting systems that handle rendering, physics, collisions, memory management, sound, scripts, and so on. Like languages, interviewees describe having experience using a number of different engines: Unreal, Cocos2D and Cocos2X, Twine, Gamemaker, Flash, Construct 2, AGS, Stencyl, and others long outdated like Playground, Ogre 3D and Renderware. By a massive margin, the most frequently used engine is Unity—of the nineteen interviewees that work or have worked hands on with an engine for their work, thirteen report using Unity, and another three are learning how to use it. X12 describes using a proprietary engine, owned and maintained by the mainstream company he works for, and X05 has been gradually developing and maintaining his own multiplatform engine in C++. Other than X05, none of the other interviewees describe making their own engines from scratch.

**The expressive component of development: choosing your tools**

Given the extensive number of language and engine options for developers to use in coding their game (or pseudo-coding, as in Construct 2), what are the expressive components of the assemblage that affect decision making for independent developers in New York City? Interviewees report a number of different but interconnected personal and systemic factors: engine requirements, perceptions of a tool’s unique qualities, requirements for a game’s platform, personal preferences for and prior experience with the language, the marketability of the language or engine, time constraints, management dictates, and client demands. Which of these expressive components affect the developer, and to what extent each matters, depends on the person and the broader context in which the game is being developed. In some cases, these factors are less expressive and closer
to material components: a developer working on a project already being made in C# cannot develop the game in another language at their whim, for example.

A significant factor in the languages developers have available to use is which choice of game engine they use for development. Engines often support only one or a small number of languages: Cocos2D, for instance, requires using Objective C, while Unity allows coding in C# and JavaScript. When asked which comes first, the choice of language or choice of engine that supports the use of a language, interviewees say choice of engine generally comes first. X01 notes that his current work is in Unity, and the question of what language to use depends on Unity’s options: he says, “…because we were using Unity, our two options were JavaScript and C#.” X04 also reports deciding on the engine first and deciding on a language based on what the engine supports: he discusses reasons to use Unity and ends his comments saying, “And within Unity, C# is the language you’re supposed to use if you can do it, I guess.” X06 likewise sees the language choice secondary to engine: “[if the client says] ‘I want it to be cross platform,’ then it’s gonna be Unity. Unity supports C# the best, so we go for C#[.]” X14, when asked how he chose which language to use for his current project, responds about his selection of engine: “I pretty much got it given to me because I looked at Cocos2D, and the main thing to figure out is what engine to use.” This “engine first” position naturally follows to the developers using engines with dedicated languages: Gamemaker, AGS, and Construct 2, for example.

Other times, language comes first. X05’s preference for C++ inspired him to design his own alternative to Unity specifically so he would have Unity’s functionality and cross-platform capacity while still being able to work in C++, which he prefers over
C#. X18, on the other hand, talks about using AS3 because, “Usually, we go with ActionScript 3 a lot because [my partner] and I both know it so well and we can get things running really fast with it, especially because we reuse a lot of code. So, that helps.” X20 made an initial version of his game in Java using a homemade engine, but when he needed to make the game cross-platform, he made the switch to Unity—and, accordingly, he decided to switch to C# because he could more easily port his existing Java code to C# than to JavaScript which has a more different syntax.

Naturally, all languages and engines are different, and one factor that developers report affecting their opinions and decisions about which languages and tools to use is their perception of what those languages and tools are good at. On the decision to use Unity, X01 notes that Unity is “flexible, that it can do 2D and 3D and I can do arcade games and mobile games and PC games.” For X03, an advantage to using Unity is the add-on store where he can contribute, and earn money from, assets and code that people can use in their games. He also note a preference for Unity because it is “really easy to get up and going with most anything.” X05 prefers to use his own engine in part because he describes it as being better than Unity at the particular aspects of projects he is interested in: “All the 2D animation stuff is way more sophisticated than what Unity can do, so that’s a plus, like I can make my own tools and then it’s just much better.” When it comes to 3D projects, though, X05 prefers to use dedicated 3D engines because “It’s just not worth it… once you get into 3D, the math gets more complicated, everything gets more complicated. So using something like Unity for 3D makes sense. Using something like Renderware or Ogre or whatever, it makes more sense.”
Developers sometimes make decisions about engines in particular based not necessarily on actual characteristics of the product or first-hand experience. Rather, they pursue or reject options on the basis of what they hear from others or early uninformed assumptions. X01 contrasts his appreciation for Unity with his feelings towards Source which he has not used but still has an opinion about that makes him feel that it is a less desirable choice for him: “I think it focused on 3D games. So I think that versatility [in Unity] is really important to me.” X09, while she doesn’t develop directly, pushes projects generally away from using Unreal engine though she has no direct experience with it:

I think that it is definitely something that if you’re not a game company, approaching that feels intense and feels crazy and feels like you need a whole new team for it… it feels like this beautiful thing that will make your dreams come true but only if you put this much love into it and this much effort into it and you have this much talent, and that very quickly raises the price on all of our projects, licensing wise, talent pool wise and things of that nature.

When X04 began experimenting with Unity after having worked in Cocos2D, he initially describes having a knee-jerk reaction against it: “Even after I tried it once, I was like, ‘This is terrible, I don’t want to use this,’… but once we actually started using it to make an actual game, it was like, ‘Oh my god, why haven’t we been using this?’” His reason for objecting to Unity is, he says in hindsight, a bad one:

Because it was a closed framework. We can’t go into the source and change what Unity is if we wanted to. But in practice it turns out I really don’t want to do that, and every time I’ve gone down that in other frameworks, like we did that for a few times for [my first game], it made it impossible to ever want to upgrade. We had to keep track of the changes we want to make in the framework, download the new version of the framework and make it again. It’s a mess, it’s a terrible mess, and it’s a terrible idea to just do that anyway, so it doesn’t bother me to do that in Unity anymore, but that was the reason.

Developers likewise describe choosing to pursue learning engines based on hearsay and reputation as well. X07 worries about switching to Unity because of accounts
that “it’s very easy to use” and at the same time that “it’s complex.” X10 has similar thoughts about the transition to Unity: “This might be just my personal bias, like I imagine that Unity is the way more complicated language, but I’ve been doing some reading about it and it doesn’t seem super complex. It actually has a lot of tools that make things really easy, sort of things similar to Construct actually, where you can do coding by dragging things around and what not.” X11 wants to learn more about Unity because “it feels like Unity can do the most.” X14 made his decision about what engine to use based on a podcast that compared and contrasted three people’s opinions about three different options. These accounts demonstrate the significance of an engine’s reputation, a factor that also comes up in ideas about the marketability of experience with certain languages or engines, as described below.

People generally do not talk as much about particular qualities of the languages they choose to use—reputation and language eccentricities play less of a role in deciding language than limitations from the engine do. However, some interviewees do have opinions about languages being good or bad because of their particular properties. X05, for instance, explains his preference for C++ because he considers it “fast. It’s uncomplicated in a way.” In contrast, X03 prefers using C# or Objective C to C and C++ because he sees the latter two as “low level language. It’s kind of fun as a nerdy pursuit, but I’d rather be spending time trying to get things done as quickly as possible, and shaving off a little bit of performance isn’t really that important to me.” This was exactly the opposite position from X15; because his game was being made for an obsolete system with severe limitations from the hardware, performance issues necessitated highly efficient languages—in his case, a version of Assembly. On the other hand, X15 is open
about his disliking Java: “It does everything sort of in a non-optimal way and does nothing really well. I guess that is the long and short of it. I have specific critiques, but that’s the major one. It’s kind of the worst example of going middle of the road.” These opinions can factor into influencing what tools developers decide to use. X01, for instance, notes that in spite of all the good things Unity can do, he clarifies “if Unity only supported a bad language, like only, I don’t know what, like if it only supported JavaScript for instance, we wouldn’t have switched to Unity.”

**Subjectivity and preferences**

Interviewees notably disagree and contradict themselves in their opinions of languages and engines, indicating how subjective thoughts about them are. Whereas X03 dismisses C++ as low level and slow to use, X05 sees it as fast and uncomplicated. That said, X05 goes on to somewhat retract his position: “It’s more complicated, but I guess it’s like more the devil I know kind of thing.” X01 talks about JavaScript being bad enough that if it were the only language Unity supported, he would not use that engine: “[JavaScript] isn’t robust enough… It’s just more error prone and it’s more flexible for testing things but it’s just not reliable enough.” This is not enough to stop six of the interviewees from making games with it. Even X01 retracts his comments about JavaScript a bit from his initial opposition: “I didn’t mean to imply that it was a bad language. I don’t think it is necessarily. I just mean it’s not something that I could use to develop full scale games.” In comparing JavaScript to C#, the language he prefers to use with Unity, he struggles to describe what sets them apart in particular: “Primarily it doesn’t do enough compile time checking. I don’t know if that’s really the word for it, like C# in Unity is not compiled either… I guess it is compiled.”
For choosing engines especially, developers emphasize making decisions in part based on what their friends and others around them are using. X02 talks about using Unity for her company’s project in part because they “knew other people who had used it,” and that it “was popular.” X05 switched to Unity but struggles to describe why: “Well, I don’t really know what got me. In the early rounds of it, I’d heard about it and it sounded neat. I didn’t have the time to invest in it but I remember having a coworker look into it for possible projects at the company I was working for.” X11 likewise refers to Unity’s popularity as reason to use it: “Everyone uses Unity, everybody loves Unity. It’s a big deal.” X12 turned to Cocos2D in part, again, for the same reason: “because at the time, it was very popular.” This is specifically the case for people deciding to first learn an engine or move from one engine to another. It indicates particularly the low sunk cost of investigating an engine’s capabilities—a factor tied directly to the student-friendly terms of use and low costs associated with engines (see chapter 3 for details).

**Tool selection and marketability**

Developers do not only rely on hearsay and personal opinions to decide what languages and engines to use, of course. Interviewees occasionally refer to the perceived marketability of experience using particular languages or engines influencing decisions to use or learn certain languages or tools. X11 is learning Unity not only because it is popular (as described above) but also “just knowing Unity is good because it seems like sometimes I see job openings and they are Unity programmer specifically or Unity developer. They want someone who knows Unity.” X12 is also trying to use Unity more to help himself get work in the future: “I’ve done a little bit of stuff in Unity, not a ton with it, but I am training myself to do more. I do anticipate using it more professionally.”
He proceeds to note how demands for languages have changed over the years: “When I started my career as a programmer not even in games, Java was the language of choice for pretty much everything, even though it was really slow… Flash was also incredibly popular for doing all the UI stuff… with the iPhone revolution, objective C suddenly became a lot more important.” X14 takes this a step further and talks about possibly learning Swift, which had just recently been announced as Apple’s eventual replacement for Objective C, in the hopes that it makes him ahead of the crowd: “Swift is still relatively new so if I get onto this, hopefully it gives me an advantage and who knows if down the line we do some standalone app for something, we do a companion app for a game. I have to know how to do it in Swift because there could be more of a utility app as opposed to a game. At least learn how to make that work.” X09 affirms the beliefs of other interviewees that some skills are more marketable than others; coming from the position of someone hiring people, she regards C# programmers more highly than JavaScript ones (and both, naturally, are expected to use Unity). She notes, “I find the skill and the nuance of the C# programmer, in the projects that I’ve had, always outstripped and outmarked the JavaScript programmer.”

**Platform selection and available tools**

Another reason interviewees cited for choosing an engine—and by extension a language—is the platform or platforms for which the game is being released. Interviewees point to this as a major reason for switching to Unity, often from Cocos2D. Whereas Cocos2D could only export games for Apple products, Unity, beginning in 2010, facilitates publishing to Android as well as iOS. X01 says of using Unity, “The cross platform nature of it is important to me because I work on all different types of
games.” X03 remarks that “they give you so many options. You can build for so many platforms.” X19 notes that Unity’s cross-platform publishing capacity played a role in her company’s decision to use it as well: “At the time, there were many challenges with cross-platform things that I mentioned before that Unity solved for us.” On the other hand, people making a game specifically for iOS might choose just to use Objective C and Cocos2D: X04 describes the game he has been hired to work on as “an app-game hybrid sort of thing, so it makes sense to be native [on iOS]… It’s that plus we need something to do creations that weren’t easily available in Unity. We’d have to make iOS plug-ins anyway.” X14 is primarily interested in publishing to the App Store, so he sees porting his code to work on Android as an afterthought: “I might look into that at some point but right now, I’m just focused on making it on iPhone. We’re not gonna be overzealous about it. Try to make sure it works and plays great.” Platform is not a strict material limit on what an engine can do; for X05, he has written the code that allows him to publish from his engine to PC, Mac, PS4 and PS-Vita. X08 hired a company specifically to port his company’s games from PC to mobile. X14 likewise discusses different companies that supposedly help port games in Objective C to run on Android. That said, with the exception of the custom port code by X05, both X08 and X14 report having less than stellar results from the experiences with porting which have led both to reconsider doing so.

As to the question of how it is decided which platform a game is planned to be published for, that is difficult to determine. Like the engine-language connection, game and platform are linked in such a way that it may not be clear whether or not a game came first or the decision to publish a game for a particular platform did. For X03,
platform seems paramount: he started developing for mobile “because I heard people were making lots of money on it, with Angry Birds.” For X02, though, because the game was Kickstarter, the game came first and platform destinations were a secondary consideration:

We knew it was going to be PC obviously. We would also like to target consoles and our recommendation was basically let’s not do mobile because that will give us too many performance constraints and will just not be that appropriate for the type of game, even though that was sort of in the early plan, we’ll put it on everything. My plan is basically we’ll design it so it can work with a touch interface and if they want to port it to the super-powerful mobile platforms 10 years hence, that’ll be fine.

For X05, the fact that his game was Kickstarter partly took the decision out of his hands: a perk of reaching a certain funding tier is for the game to eventually port to Linux. For X20, the platform for his game was initially set by the fact that the code was not portable to iOS, but he subsequently has taken steps to bring the entire game into Unity in order to port onto other platforms.

Then, as some interviewees note, certain games simply cannot exist outside of a certain platform for obvious reasons. X11’s project incorporates a digital game with physical objects; while he has thought about distributing it in some other way, he notes, “[I]t would have to be altered in such a fundamental way that I don’t know if, one, I would want to and, two, if it would be worth it.” X01, X05, and X09 note how some of their games are installation or arcade based and thus cannot be distributed to other platforms without major changes, if at all. The variety of responses on the subject of how platform affects decision making capacity within development is that the current landscape is remarkably open to different approaches. Unlike the experiences of developers that O’Donnell (2014) describes, having to work closely with hardware and software for a particular platform and having to make entirely different versions of the
same game to accommodate radically different kinds of system architecture, the cross-
platform potential of products like Unity and the ease of porting from Cocos2D to the
App Store speak to an entirely different landscape where release platform plays less of a
role on decision making, at least in the independent community in New York City,
compared to the experiences described in mainstream development elsewhere.

Deciding without authority: superiors and clients

Up to this point, emphasis has been on how developers choose languages,
engines, and platforms. That said, not all developers have the choice or even a say in
some or all of those decisions. For those people working as employees—full-time,
freelance, or contract—decisions about development approaches may be made primarily
from management. X06 reports that decisions about engine or language are “never my
decision,” and that decisions are made by his boss: “I guess [my boss is] just like, ‘I want
to make a game for iOS.’ That’s it, that’s the decision right there. And we can’t really
convince him otherwise because it’s his company. I guess he thinks iOS at that time was
good.” For X11’s part-time work making education games, he has no connection with
how the games he works on get distributed: he says, “No, that was already set in place.
There was a way that they had, a way that they do it there, and where the game is going
to live is already set up.” Likewise, X10’s work with a company left him out of decisions
about distribution as well because part of the company’s mission was to create a web
portal for games to be hosted. For X18, the game had already started being developed and
she was hired to work in Unity. Producers may decide to use particular technology—
reuse code in X06’s case—because, X06 suggests, the producer (in this case, also his
boss) feels “it’s pretty cheap. It’s already written, so why not use it?” In her role, X19
describes working with developers to conform better to what she believes are the client’s needs: “I’ve helped in the process to develop a focus or to veto things that I know the client doesn’t want or to try and work in things that the client does.”

Clients can also play a considerable role in making decisions about choices of language, engine, or platform, not only for employees of contracted or subcontracted companies and freelancers but also for management which may have to produce what the client wants no matter how bad a decision that is. X01 notes that clients come to his company to make certain types of games specifically because his company has built a reputation for making them, so he says, “they have already made that decision by the time they come to us.” For most people with client experience, a client comes to them with plans already made. X01 mentions, “Sometimes there’s design decisions that come before I get involved, like the client says it has to be on this platform or has to use this controller or whatever, so sometimes it is just part of the requirements and the constraints.” X21 mentions that sometimes, the company he works for sometimes gets hired to work on parts of larger projects: “We sometimes jump in on stuff or they have requirements or they are hosting things themselves or something like that.” X05 notes that these decisions may not always make sense:

You know some CEO or whatever gets it into their head, “Oh HTML5 is hot now, we need to get on that,” so they’ll make the game in HTML5 even though it doesn’t make any fucking sense. We had this one client, they were making us make HTML5 games that we then had to wrap and put on iPad, and we’re like, this doesn’t make any freakin’ sense! Why not just write this in Objective C or whatever?

It is not always worth fighting these decisions; X05 notes that if the client is dead-set on a decision, “I’ll be like, ‘Whatever, it’s fine…’ Whatever they decide to do, it’s their business.” X04 notes that regardless of the dictates from the client, development
inevitably involves making little decisions along the way: “I mean, there were minor
decisions that you make all the time as you’re programming, like ‘I believe this should be
this way, this should be this way,’ just because I have to do something; I can’t go to ask
them every single line of code, right?”

Learning new development tools and skills

Developers clarify that many of the languages, scripting and otherwise, are
remarkably similar to each other, enough so that even having never worked in a particular
language before, they express confidence in their ability to use it if they have to. X01
explains that he learned AS3 because he was hired to do a freelance job to make a game
that was in Flash and required him to use it, and he reports doing the same for other
languages since then:

It was already determined that it was in [AS3] and they wanted to hire me to work
on it, so I basically learned it as I was working on that project. And C#, basically
the same thing, I started using. I dabbled in Unity and then somebody hired me to
make a game that they wanted to be in Unity, and I had to get familiar for that. It
wasn’t too much of a learning curve because it’s so similar to a lot of other
languages I had used.

There are two notable aspects to this incident; the first is that X01 was able to learn a new
language in such a brief amount of time without any external instruction, and secondly is
the fact that someone would hire a developer with no knowledge of the language being
used which demonstrates the relative ease and commonality of learning new languages as
needed. X10 learned C++ in college and proceeded to teach himself a bit of C#. He goes
on to say, “I think I would be able to work in Java or JavaScript if needed because of its
proximity to those languages.” X14 feels much the same way: “But the thing is, once
knowing ActionScript 3, I can look at other code and I can pretty much get it. They’re all
the same principles; they’re all the same from C++.” X16 suggests it is perhaps even
more rudimentary and that the ability to quickly learn a new language is, at least for her, a product of her knowledge of mathematics: “I have a degree in math, so learning a new language is not a big deal for me, because most of the object oriented languages are the same, just the syntaxes are different. If I don’t know a language, I can learn it in a matter of a couple of days.”

This is not to say that learning a language is a cake walk for everyone interviewed, even those who are developing games. The core distinction between accounts of those that express how easy it is to learn a new language and those who talk about wanting to learn but not having done so already appears to be prior knowledge of a compiled language (C, C++, C#, Objective C, Java, etc.) Both X07 and X08 make games using a scripting language tied to the engine they have used for over a decade, but noting limitations of their engine, they discuss moving to Unity—which would require them to develop in either C# or JavaScript, which neither of them know. X08 talks about learning Unity (how to use the engine and not necessarily how to code anything for it) by taking a class offered by a local professional association, XORG. In talking about learning this new skill, he notably lacks the confidence found in interviewees with pre-existing experience in C languages: he says, “…starting on Tuesday, I’m taking a class in Unity and I want to see if I can start making my games in Unity.” X07 expresses outright fear at the prospect of moving away from the program he has used his entire career and into Unity: “I know there’s been talk about switching over to Unity, which terrifies me a little bit,” and when I ask him if he has used Unity or looked at it before, he responds, “No. I have not. I’m afraid of it.” For X11, who openly admits to knowing C++ a little (he says he is “Not a savant, that’s for sure”), he talks about learning Unity and C# slowly, having
forgotten what he learned of it when he was in his master’s program for game design. Rather than picking it up in a week, like X16 boasts, X11 talks about trying to learn a little here and there, like when he has time riding on the subway. He also tried taking the same kind of course that X08 describes taking, but the spaces filled up before he could get in.

Knowing other programming languages did not automatically imbue the ability to quickly use new languages, but interviewees who already know a language mention spare time playing a significant role in learning new languages. X18, for example, first learned to code from Python (a scripting language) and then, with help from friends, she learned AS3. When she had the opportunity to teach classes in C++ and Processing (which uses Java, similar to C++), she explains, “I was teaching myself other things along the way.” She likewise admits to not being a “savant” in those languages, and she still prefers to work in AS3 or use the engine interfaces. Since leaving the New York area for full-time work, she notes her time has become considerably more precious: “Largely, I think it’s just been I’m too busy to go out and meet people, which is something that has changed as I started my actual career.” X09, who is a designer but previously had work experience using XML, HTML, and Lua, admits that while she does not consider herself a “programmer,” she wants to learn but simply doesn’t have the time. She says, “This place I work at now will pay for me to go to classes and I can learn Unity and stuff, but like I said, I’m working 3 jobs, so I’d love to. I keep on going onto Udemy or Codeacadamy, I keep on trying to do the things, and then I have something else to do, so I can’t do it.” X11 mentions the reason he tries learning Unity on the subway is because he is too busy between part-time jobs and continuing work on an existing game since the end of his
master’s. He talks about how difficult it is to have a stable schedule with all of his interests and obligations: “…perhaps I will have a ton of things that are not part of my five things that I care about, and I’ll have to do something with my wife, or I’ll have to do an interview, like this. This is not part of those five scheduled things, but I’m making time for it. But it’s weird because this is valuable to me, I want to do this, but that’s taking away from the time that I have.”

**Empowering opportunities for learning game development**

Over the course of the interviews, people interested in learning new languages who either do not learn by doing pointed out a wide array of routes to learning, revealing a landscape in which becoming a developer is widely accessible. For some, learning their first languages was a part of growing up. X20 started making games by making modifications to a QBASIC game when he was 8, gradually discovering what the code meant and what would change when he made particular changes. X15 had a similar experience, first learning by making changes to a QBASIC game, with the help of an uncle with programming experience. X12 started to learn by exploring the *Quake 2* source code and *Half Life*. X18 toyed around with web design as a kid, giving some early exposure to PHP that set the stage for learning other scripting languages later in her life.

Beyond access to code at a young age, interviewees often mention having depended on, and still consulting even in the digital era, manuals and books. Prior to the prominence of the internet, this comes up as a common occurrence. X01 describes the typical encounter: “I found a book [on C or C++] at some bookstore that came with a floppy disk-- you had to buy the compiler and there was some how-to book and I think I learned from some big huge manual.” X03 too started with books on C++ back when he
was in high school (though, he notes it did not stick at the time). For X06, who first learned coding after 2005, even though he was getting direct access to a mentor to learn from in person, he still asked for books to read before beginning to work on the first game he was hired to work on. Both X14 and X15 likewise went to books to get started.

More commonly, interviewees cite depending on online sources, including tutorial videos, blog posts, and engine documentation. X12 broadly attributes a lot of his skills directly to online sources: “All those skills I use now I developed over a really long time, but for how to make games in particular, as opposed to just programming in general, a lot of it I really owe to the internet … especially if you don’t already have an ‘in’ in the industry.” X04, X14, and X20 mention Googling specific problems as a primary solution. X06 mentions that because of how commonplace this practice is, he feels that when he asks people about particular problems, they “don’t give a shit.” He recalls, “When I was in GDC, I was asking this question, ‘Where do you guys learn new stuff?’ They’re like, ‘Google.’ What the hell?” X12 and X14 both mention consulting online content by the prolific Ray Wenderlich whose site hosts numerous tutorials for software developers, particularly on mobile. X06 mentions articles on Gamasutra, though more people cite this as a source for information on design and learning about new games than specific development concerns (see below for more details on the labor of independent game design).

Engine documentation, the manuals that detail the functions of a particular engine, also prove valuable resources. Both X20 and X12 mention consulting Apple’s detailed documentations to help with projects. X07 cites AGS’s high quality documentation as a core reason for using it as opposed to another specialized engine
that’s documentation is only in German. X10 cites consulting engine documentation to help inform what engines to investigate for future projects. This use of documentation notably points to how important the internet in particular is for these developers. Unlike text documentation for programs that could only be accessed after purchasing the program or a license for one, the fact that someone like X10 or X07 can examine documentation prior to using a tool indicates how easy and low-stakes the process of learning about engines and how to use them is in the current environment.

Unsurprisingly, many developers learn how to develop largely or in part by attending college or a master’s program. This includes the people described previously who learned first from looking at code or reading textbooks. X04 knew he wanted to be a software engineer, and he says, “I went to college and [computer science] was just my major then. I was learning that entire time…. I want to do this, so I’m gonna do this.” X03, X12, X15, and X20 all majored in computer science as undergraduates; X01 and X10 majored in other subjects but took computer science classes during their undergraduate years. X11, X16, X17, X18, and X02 (who is a designer but learned enough coding to be the dedicated programmer for her thesis project) all learned coding through a master’s program, having studied other subjects previously as undergraduates. X21 went to a coding boot camp—a non-degree granting intensive coding school designed to quickly ready a skilled labor force for programming jobs.

New York City also offers other shorter term opportunities for learning game development skills. A prominent source is XORG, a local organization of people involved in the games industry with an emphasis on independents and commercial titles. XORG offers classes and workshops to interested students on various nights throughout
the year, ranging from one-off courses focused on a particular development matter to multi-day courses teaching, for instance, Unity basics (as X08 attended and X11 attempted to get into). Another organization, XART, offers workshops on more “casual” tools, such as learning to program using Twine. X18 taught courses for another organization, XCODE which organizes events specifically for women to learn how to code. Additionally, New York City hosts a major convention for independent developers as well as innumerable guest developer speakers at local universities or organizations like XART. The convention XINDIECON, which focuses more generally on indie games including development, design, and play, offers workshops on basic development tutorials. Developers I spoke to did not cite XINDIECON as a significant source of instruction, but workshops were well attended in 2014 and 2015.

**Deciding how to learn: The expressive axis**

When developers discuss how they decide to learn, personal learning preferences appear to play a major role. Some, like X01, X05, and X06 say they learn best from simply making games. None of them learned to code in college; X01, who took a minor in computer science as an undergrad felt that it was “like a technicality” and he learned little from the experience. In X04’s case, he learned how to be a software programmer as a computer science major, but for developing games specifically, it was about picking it up and learning independently. Others say they depend considerably on their post-secondary experiences; even though X03 started trying to learn when he was younger, he notes, “It took me going to college and enrolling in computer science before I could figure out how to program.” Afterwards, he had the basic skills needed to continue learning from tutorials online. In spite of his early reliance on college for first helping
him learn to code, X03 describes himself as “a self-learner;” rather than pursue a master’s degree, he prefers to learn new information on his own. X04 chose to learn to code when he was young through a hybrid correspondence course rather than an in-person program, which was also available to him, because he says “I’m an introvert.” X07 did not complete his post-secondary instruction; instead, he learned better from experience working on his own games as a hobby. X10 mentions, “I am a big fan of reading as a method to acquire knowledge,” and he says that he does so accordingly.

Another factor in deciding how to first learn is the age when would-be developers begin pursuing software or game development as a goal. Participants who describe experimenting with development as children often say they began with books, existing source code, or classes on software development, with many moving on to majoring in computer science as undergraduates. Those that began getting interested in making games after their undergraduate years, though, did not return to school for a bachelors, though some like X11, X17 and X18 went on to master’s degrees and X21 went to coding boot camp after completing unrelated bachelor’s and master’s degrees. For X06 and X07, they have paying jobs making games for independent companies, making going back to school unnecessary.

Others, especially those in their late 20’s or older, recognize that they would have been interested in taking game development courses specifically (as opposed to generic software development courses or something else entirely) except that such courses were largely unavailable to them when they were in school. In X07’s brief time in higher education, he notes that his university (which was in a different state) offered a program in “digital arts and sciences” but he “would have loved for there to have been some sort
of game design program when I was in college.” X20 and X04 remark on the dearth of
game-specific classes when they were undergraduates, though incidentally neither at the
time was interested in learning how to make games. X11 mentions how attempting to
learn to make games as an undergraduate at the time he was getting his bachelors would
have been farcical: “You couldn’t major in game design\textsuperscript{24}. That would have sounded like
you wanted to major in professional wrestling or popcorn or something like that. It would
have sounded crazy.”

Like the decision to use a particular engine or language, decisions on how to learn
and continue learning development may depend on how much time the worker has
available. X09 mentions that with working full-time and part-time and trying to start
developing an independent project on the side, she does not have the time to learn even if
she wants to: “[The full-time job] I work at now will pay for me to go to classes and I can
learn Unity and stuff, but like I said, I’m working three jobs, so I’d love to.” X11
mentions struggling to find time and resorting to learning Unity on the subway because of
time constraints. Other than these cases, though, everyone reports being able to find time
to learn—in part, this is because so much of the learning is from blog posts and Google
which can be consumed quickly and don’t require a consistent schedule.

\textbf{Game Design}

If the tasks performed by a game developer are akin to those of construction
workers making and using tools and resources to raise a building, the game designer can

\textsuperscript{24}X11 specifically attended a game design master’s program and names design as opposed to
development. That said, he does mention that all of the development skills he requires for his work
(except for audio editing skills which he previously acquired) he learned from his game design master’s
program. By implication, one can understand that majoring in game design would include learning
development and not just design.
be thought of as the architect. In practice, the tasks involved in design concern planning what a game will do, how it plays, what it looks like, and making prototypes. These individual tasks are frequently done in tandem with other interested parties; what the game will do depends on what the developers can do and what it looks like may be a joint decision between the designer and artists. The designer’s role boils down to making decisions but not necessarily implementing them. The basic tasks that interviewees who participate in game design describe are planning, prototyping, and playtesting. Planning is the process by which decisions about the game are made, prototyping is the process of committing a design into a tangible object, and playtesting is the process of exploring a prototype or build to evaluate and refine the decisions that go into the prototype.

**The “materiality” of game design**

Being a game designer (or perhaps more realistically, performing the task of game design) is radically different from being a developer (or the act of developing a game), primarily because game design is an immaterial skill and not based on discrete skills using technology. For this reason, discussing the materiality of design as a part of the game making assemblage is somewhat incomprehensible. Designing a video game, unlike developing one, requires no technology or training (though, being a good designer is another matter). For example, one common design technology is simply paper. For some, design involves writing down design ideas literally on paper lying around. X20, describing his early games as a child, discusses such a scene: “I was always just drawing stuff on pieces of papers and thinking, ‘Oh, this would be cool.’ Or, when I was a kid, it would be me, a friend of mine, and my brother sitting around my parent’s basement talking about it. We’d be scribbling something on a piece of paper and that would
eventually make it to the computer. That’s sort of how I still do it.” X14 began designing a game on little pieces of paper while sitting with his friends, who are now collaborators, in a park. X07, in collaborating with an artist to make backgrounds for his games, describes starting by writing room sketches on paper and scanning them in for the artist to use as references. X17 says he starts the design process with a piece of paper and a Netflix documentary. Some interviewees describe employing a technique called paper prototyping—constructing simple versions of a digital game’s mechanics into a quickly made physical object like a board game or card game. For X09, this is an important step before anything is actually programmed: “I will design and perform paper prototypes of games… I don’t believe in programming or doing anything until you’ve tested it out [on paper].” X06 and X05 collaboratively developed a paper prototype of a client project before creating its digital counterpart as well. As for playtesting, paper is also often enough. X11 describes conducting a playtest by simply watching people play, taking notes of what the players do, and perhaps asking them for their impressions afterwards. X05 sometimes develops questionnaires to hand out. X17 stands back with a notebook and simply watches people play from a distance.

Other times, interviewees report designing games by simply talking about it with collaborators. Whether paper or anything else is actually involved, when asked about making design decisions, people refer to meetings and discussions more than documents that might have preceded or developed out of them. X01 describes learning about design in meetings at a company early in his career. On the subject of documenting designs, he says, “A lot of times I won’t waste time documenting something properly when I can just say, ‘Put this in the game.’” X04 also describes design as being based in simply coming
up with an idea for the game and implementing it, even if that decision is later rejected after a discussion with his partner. In his job as a freelancer, he notes how important being around for a discussion is when it comes to design decisions: “Whenever there is a conversation about the game, [my business partner is] there and the people he’s working with are there but I’m not, so I can give feedback to [my partner] but mostly the game gets designed over there, and because I’m not there, it’s harder for me to do that.”

Recalling his time collaborating on design for a school project, X11 says he contributed by trying “to give my design sensibilities, add suggestions and things like that.” Even in X02’s case where the project is expansive and heavily documented, she emphasizes the ways that initial design decisions change; they come from noticing that “this wouldn’t work and that breaks this, and this would take way too much time to implement and here’s a much more cost effective way of achieving the same effect we want, this is superfluous… that was a bad idea and this just completely fails in the playtest.” She says, “I feel like half of the things you end up with aren’t really the things you ever decided. They just sort of happened when it was time.”

At its most formal, some designers construct a game design document (GDD). As part of her full-time job designing games, X09 largely dismisses these as a useless formality:

That’s the thing that everybody writes and nobody actually looks at. A game design document is the bible of how this game should work, what the assets should look like, what the sound should be, what the file size we’re looking for, the experiences and overall steps to the thing, then that shit gets thrown out immediately when you start doing prototyping, but everybody wants one. I can’t make them stop wanting one. I can’t tell them how many times it gets thrown out, but hey, gotta do it to get paid.

X10, by contrast, mentions building a GDD after he and his two partners decided to turn their game jam game into a full title. On further discussion, he clarifies, “Thinking back
in the earlier stages, the game design was fairly collaborative… Well, from the beginning since it was a game jam game, it was already finished, so a lot of the concepts and mechanics had already been solidified by the time we decided to make it an official project.” These responses describe the shifting messiness of design, that things are always changing, or some decisions are so at the core of the project that they already exist by the time design can be documented.

**Technology and independent game design**

Despite the frequency of low-tech approaches to design, such as paper or conversation, interviewees report finding uses for technology along the way—not for planning, but particularly for prototyping and playtesting. For designers with development experience—even a very little amount—a number of engines make simple games very quickly. X01 notes JavaScript may be a “bad” language for developing a full game, but its flexibility is adequate for “testing things,” making it “fine for prototyping.” X10 describes making small tests for himself in Unity to “flesh out this idea, a prototype or mechanical whatever.” X11 notes that for a narrative game, he would use Twine “because it’s the fastest and super easy.” X17 used GameMaker to prototype for a school thesis project which over time morphed into a finished game without being moved to a more robust engine. In X17’s experience, the difference between a prototype (meant to test something quickly) and a build (a partial version of the game that ultimately is the finished game) becomes hazy.

Networked technology also helps some designers playtest over the internet. Predominantly, interviewees test in person, either on themselves (as X04 and X08 describe), friends and family (as X03, X04, and X07 describe), or at large events like
locally hosted playtesting expos (as attended by X05, X06, X10, X17 and basically everyone else) or consumer conventions (as X14 and X04 discuss). However, playtesting can be done impersonally using the internet to deliver builds and receive feedback. X07 describes how his game gets playtested through a forum set up by his boss, who “puts out the call” for people to playtest with a “link to the Dropbox.” When X07 has a new build, he simply sends it to his boss who asks for testers again and returns the feedback. X14 says he has used a product called TestFlight, and eventually another similar app called Hockey, which are designed for beta testing applications on iOS. The process is similar to what X07 describes: X14 sends email invites to testers who can play a build whenever it is available. From the tests, depending on the program, X14 can get analytics back to use as feedback alongside the written feedback from players. He describes this as a really helpful way of managing playtesting, especially because he cannot QA his game (conduct quality assurance, i.e. test for bugs) on every Apple device: “I don’t have money to go get an iPad Air or iPad Air 2 and test out all that stuff, so all the people with these other devices, when it goes on theirs, we get to see did something happen here, is it broken, is it working fine, this and that.” The option to playtest over the internet obviously depends on the platform the game is on; the examples interviewees provide are for PC and mobile games only. Naturally, those with games on unusual platforms or games restricted to physical locations cannot test that way.

**The expressive component: when designers can’t design**

Unlike the work of a developer, there may be no clear sense of why people choose to design in certain ways, in part because the process of design is so difficult to communicate if it is not written down. It is easiest to find those instances in which the
design work is in part or entirely out of the game maker’s control, such as client work or when a designer comes onto an existing project. X04 mentions making games as a freelancer for another studio. On the subject of coming up with designs for games, he explains, “The series of games we did for the big company, the games were pretty much already decided before we entered the picture at all. So the contract work is mostly not me [doing the design].” He restates that in doing work for an educational game: “It was really them driving the design before we actually got the contract for it. They had prototyped something fairly similar, the basic mechanics….” X05 mentions sometimes just not having the energy or interest in fighting the client: “There are times like especially on client projects when I’m just, ‘Ok, fine, let’s just do that.’” For X09, the content may restrict what design can be done: “If you are given an educational financial simulation game and it’s about high interest rate loans, I have no control over [what] that content is. I have to make it work in there.” In her experience as a freelancer for a different studio, she is limited by the fact that many decisions have been made by the time she was hired. One of the games X21’s company was contracted to produce had its entire design pre-constructed by the client and passed down to them for implementation, meaning he had nothing to do with the larger design concept at all.

Not every client is so specific, of course; a different game X21’s company handled involved pitching game ideas to the client and getting approval afterwards. X17, who helped design a game for a client, suggests that clients are unlikely to be so hands-on because “no one who has any money to hire people to make games knows what games are.” He explains further, “They’ll say, ‘Can you make Pokemon? Can you make …’ then maybe they know some terms like ‘infinite runner.’ But nothing else.” He suggests this
has been the case for some time, recalling what he heard two of his professors talking about: “I remember [my professors] talking about that being the case when they had to do for-hire projects in the 90’s. You just do whatever [you] want because no one actually knew what they want.”

A possible explanation for the difference between highly controlling clients and more relaxed ones may have to do with the types of games being contracted. Consider X21; in the case of the first game mentioned, the design was prescriptive and he had nothing to do with it. In that case, the game was a corporate tie-in to a television program, designed to incorporate audience participation during the live broadcast. This concept—the reason for contracting the game in the first place—inherently demands a certain type of game with very specific content restrictions and assets that no implementing studio can have a part in changing. On the other hand, the second type of game X21 describes was an online lottery title. While there were a lot of legal restrictions about the development and mechanics of how the chance of winning would play out, largely everything else was at the company’s discretion. In this case, as in the situation X17 describes, the company hires the developer to simply make a game that does X and fits a certain aesthetic; what the game does is largely free range because, in contrast to the example of the television tie-in game, the purpose of the game is not tied to the content itself.

Collaboration and independent game design

More often, across projects of all scopes, independent game design involves some degree of collaboration with coworkers, clients, or players during playtesting. X21 describes this both in the more staid corporate setting of his day job as well as his work with a partner making independent games: “Here at work, because we are working with
the creative director mostly on those games. We would talk about it and then we’d say, ‘Ok, that’s a good idea. Go do it,’ and me and my partner outside of work talk about stuff together. Most of the decisions, we’ve talked through a lot of stuff before we implement things.” X20 says that he learned to make changes to his game’s design from criticism he receives during testing: “Largely it was my network of friends, and then when I started going to meetups, I spoke to them. I got feedback.” As the lead designer and developer of his game, he mentions weighing the choice to make changes carefully, saying, “I also never made any changes to my game based on a single person’s feedback. I would have to hear it multiple times before I would actually consider making the change.” For X18’s work as an employee for an independent company, even though she does not have the authority to make design decisions unilaterally as X20 does, she feels that she can participate in the process: “I can be a part of any thing that I want to be at [this job]. It’s a small company; if I just want to join in on a conversation, I can.” She is hardly the only one to suggest this; X01 in his time at a small game studio and X02 as well report feeling that their design opinions were respected and that they were free to participate in meetings concerning things that did not immediately relate to their normal work. X17 suggests that every game involves some degree of collaboration in design: “Even if you are designing something on your own, it’s sort of collaborative because other people have to interact with it. It’s not like a sculpture that you can [he waves his hands like he is sculpting] ‘Ahaaa!’ and put it out and it’s done before you even saw it. I don’t think that ever happens with games, and if it does, probably no one knows about them or continues to pay attention to them after.” X04’s situation with his partner is an exception that proves the rule; when they began working together, X04 describes being the dedicated
engineer while his partner did the bulk of design. He cites frustration at not being able to participate in these decisions as part of the reason for the partnership dissolving, resulting in his being able to make what he calls “independent, really independent things now.”

The ineffable qualities of game design decision making

Design as a discipline is more freeform than development, and interviewees cite many influences on design decision making that are difficult for them to describe, in contrast to the more material limitations placed on developers. X01 describes the playtesting process, and determining if a feature is successful, based on the intuition of the people involved: “We might be working separately and I just make a change that I propose and I’m like, ‘Hey, let’s try it like this,’ and it pretty much always comes down to, ‘Here is this thing that we all think is at least worth trying.’ It rarely is a decree that this is what the game is gonna be. It’s more ‘here’s something, let’s try it and see if it sticks.’ And that often comes from players, not us.” X14 describes the determining factor in early design decisions as, “How are we gonna make this [game] work?” X15 similarly does not pick out specifics about the design process, saying, “I feel like a large part of design is knowing what works and what doesn’t and what to keep and what not.” He cites “experience” and “empathy” for the player and generating a “feeling.” For X07, the primary word is “interesting,” “coming up with interesting stories and interesting things and that sort of thing.” For X06, it is about “what’s fun, what’s not.” Where there are complications, X06 suggests it is driven by differences of opinion and of what different people want: “Initially we had a lot of people working on it and a lot of people had a say on it, which was also kind of bad because everyone wanted the game to go in a different direction.”
**Interaction between design and development**

In spite of how often interviewees refer to inexact expressive factors helping to shape game design decision making capacity, they also point out more specific material influences from developers. X12, for instance, mentions a case where the designer approached him (the developer) about including a complex AI system into their game. He describes the way the initial decision went back and forth: “She wanted to have an AI system with multiple personalities, and the design that she wanted would have required strong AI, on the level which nobody has ever done before. I was like, ‘Well, this is going to take a research grant and two years to develop,’ and then I explained how AI usually works in games and I offered some choices.” In this case, the developer works with the designer who has unknowingly asked for something materially impractical, if not impossible, for the developer to execute. As both designer and developer, X15 discusses how the extreme technical limitations of his game, which he deliberately made for an obsolete piece of hardware, affected a lot of his design possibilities: “I wouldn’t say there’s things it’s absolutely impossible to do, but there’s things that are sort of too hard to do to be worth it. You have a limited space of what you are able to put into the design, so a lot of it is figuring out what fits and what fits well.” For X17, a design decision turned out to be available even though he did not think it could be done, all because the developer he was collaborating with was able to do what he was thinking about: he explains, “[the developer I was working with] could do everything very quickly, so it was nice to say, ‘What if the entire screen folded down like a page?’ And an hour later, it would be happening and I don’t even know how he did it.” These examples demonstrate that the decision making capacities of the designer and developer (even as
roles held by the same person) emerge in cooperation; the designer cannot function smoothly without knowing the developer’s limitations or desires, and the developer depends on the designer’s guidance to enact designs.

The role of the producer on game design decision making capacity

People in the producer role may have impacts on design decision making capacity, but interviews suggest this is an exception rather than the norm within the New York City independent community. In X13’s career as a producer, he suggests that design work by and large remains with the designer:

Nadav: Normally [are] these decisions [about design] made by somebody else, a dedicated designer, like in this case?

X13: Right, and then you weigh the production efforts and costs versus something that is not a core feature and would be additional polish or something of that nature. It’s more of a discussion point. Usually, I see the merit in a lot of the things and the only thing that would nix the decision is we can’t do it in time, or it would cost too much money, or the engineer would have to course correct in order to make something happen. It doesn’t happen here but I’ve been at companies where there is feature creep. Ooooh, is there feature creep.

Unless the decision could affect production, X13 prefers to stay out of design decisions.

In his account, though, he describes other companies operating differently. He refers to “feature creep,” the process where new features for the game get added as the project goes along, making the game bloated and unpredictable to produce. The implication, naturally, is that producers can have that kind of impact on design decisions, imposing new features above what would otherwise be desired or expected by other members of the team. That said, none of the interviewees involved in design describe having that experience as designers. X19 for example describes her role as producer being primarily about oversight and organizing meetings between the people who are responsible for making design decisions. She says she only involves herself in “making sure that when
we have a client, their needs are being met, that even if an idea is gold, if it’s not what they are looking for and we can’t spin it towards something like that, then it does have to be put in check and changed.” In that way, the producer is not herself affecting design decisions directly so much as acting as the mediator between the people responsible for design at the studio and the client, who ultimately has the power to demand changes in design.

**Inspiration as expression: copying, references and design decisions**

In cases where the designer has at least some control over the broader decision making process, they often make decisions on the basis of designs in existing games. In some cases, design might begin by copying or referring specifically to other games and media. X03 describes taking this approach: “I do try to nail [mechanics and gameplay] early on, and often times I use or I try to stick to proven formulas where I can and sometimes innovate outside of there, but try to match what other people have done just because that’s what users expect.” For X10 and his partners, they do not specifically attempt to copy something else but instead aim to recall a past era of games: X10 explains, “In this case, we want it to be a very intense game, sort of reminiscent of 90’s shooters and 90’s and 2000’s Japanese action games, these very quick and intense experiences, so we tried to have our assets line up with that.” In coordinating the design of his game’s physical manual, X15 directly refers to a past era as well: “I wanted it to feel more like a fighting game manual, something like Street Fighter, where there was actual valuable information where you could learn parts of the system, discover things that people who just pick up and play might not realize.” This reference to a past era goes beyond simply copying the art style and content but includes using the exact font typical
of this specific type of manual. Helping to come up with music for games, X19 would refer to “jazzy Hans Zimmer” or she says, “For football, we’re like, ‘More rock n’ roll. Make it ‘Monday Night,’ but something we won’t get sued for,’ kind of thing.” In X21’s case, he describes deliberately making a Flappy Bird rip-off “with some stuff thrown in.” X03 designed one game to be “cute and accessible, kind of like Angry Birds.”

On the other hand, other designers deliberately mention attempting to innovate or add to an existing format in a novel way. In spite of drawing from Angry Birds for things like his game’s aesthetics and color palette, R03 came up with a primary game mechanic in order to innovate on the formula: “I couldn’t borrow from anything in particular, at least that I know, that had that kind of mechanic.” X14, while drawing heavy inspiration and direct design instruction from other games and a book specifically on the genre of game he is making, mentions making deliberate design choices to add things to the game that he has not seen in similar titles before. He notes, “Our main value was make a game control in a way that didn’t feel like a quote unquote normal game.” X02 mentions drawing design principles from games she and her team like as indications of what design principles work or don’t work for the game they are designing, but she is also critical of new developers she sees at local events just making the same games they grew up with:

…we’d sit around all the time and complain about people that just want to make games because they think games are cool, and they make the games like the games they’ve played. And also copying what they see without digging into its depths, like there’s going to be a dungeon with treasure chests and there’s going to be a rogue and a mage and a warrior and there’s going to be jewels and hearts and stuff. This all comes from Zelda and Mario and this comes from Dungeons and Dragons and it doesn’t all have to be like this. We did have a kind of analytical, theoretical approach, definitely. Analytical and theoretical are good modes for a game designer, I think.

These decisions don’t have to come from the lead designer either. X06 describes participating in discussions about the development of a game: “[My boss] wanted to do a
top-down shooter, and I was like, “Top-down shooters can be done in a different way… What if it was melee combat?”

This deliberate effort towards making innovative decisions comes up especially in regards to non-commercial game makers. X11, in regards to his personal projects, describes his work as “in some way experimental or strange or different,” part of which he later attributes to making a game that he says, “I don’t think it would make sense to sell.” X15 describes a project that is based at its core around making players think that the game fits into its genre and then subverting it: “It’s not really about winning. It’s more about the surprise element.” Forced to use a particular engine for a school project, X17 describes deliberately subverting the engine which is designed for a specific kind of game and creating something in a totally different style that barely resembles a game, “which is not at all what it’s supposed to be,” he explains.

**Learning to be a game designer: everyone can do it, sort of**

Whereas being a developer requires a certain technical expertise, game design appears to some extent to be a natural capacity for people. Interviewees describe game design sometimes as a natural inclination or ability to think up what a game is and what it should do; in other words, people do not need to learn to design because they naturally come up with ideas on their own. X05, for example, describes starting a project “with some kind of vision of what it is and then trying to not let go of that initial thing that was kind of inspiring.” X12 describes his design process in these “inspirational” terms: “I just have to sit on the subway for an hour and just frown a lot, think pretty deeply. I have a whole bunch all over the place. I have all these long lists of brainstorms or discussions where I just put all the pieces together and think.” This does not have to be a conscious
effort, as X01 describes: “I had always made little games for myself and modified other
games I was playing, but I never really would have considered it game design or really
used that term.” X06 suggests that game design is something of an inherent human
quality: he says, “I’m pretty sure you as a kid have made some few games, right?
Everyone is a game designer, let’s put it that way.”

X06 must not be the only person to have this opinion that design can be done by
anyone; X13, in spite of being a producer officially and having no formal background in
design mentions working for companies that put him in a design role. He recalls,
“There’s this weird thing and I’ve seen a reduction in it, but it’s still there where you
work for a company that takes a vested interest in games and assumes game design can
be done by anybody. I was the unfortunate victim of that, especially early in my career.”
He discusses being tasked with writing story bibles and GDDs, all the while feeling, “I
probably wouldn’t have trusted myself with that task” because, he says, “I do not
recommend [writing design material] if that’s not your specialized field.” The idea that
game development is easy or obvious comes, according to X13, from a place of
ignorance. There is a difference, he suggests, between himself and his current lead
designer “because she’s really good at documentation.”

Learning from experience

Interviewees report learning from the experience of designing, as well as drawing
from the experience of others, in making design decisions. Inexperienced teams may
learn this after having already made a “bad” game: X04 talks about one of the games his
partner made prior to their partnership that they decided not to rerelease: “We knew it
wasn’t very good. We knew in the year since he designed it, we learned a lot and we
realized why it was a bad game but we didn’t want to remake the game. We didn’t want to redesign it, so we didn’t bother trying to distribute it.” X05 suggests that with design experience, a maker can better assess what parts of the game need to change based on playtesting: “I think as you get better at design, you figure out how much of what people are telling me is important and how much of it is not, and I think a lot of it is really not listening to their suggestions but listening more to how they feel about it, because I think that tells you a lot more.” In writing for his games, X07 learns by doing: “Writing [I learned] basically through experience. I never took any sort of writing classes.”

According to X12, experience allows for innovation: “The biggest teacher is experience. I feel like if everything I could learn comes from a guide, that means I’m not doing something new and that’s a problem.” X19 suggests that even experience from making games of one kind cannot replace experience working in a different kind; in her work for an indie studio, she tries to talk to the owners a lot: “They have been working in games for a while, have worked on really great stuff, so they have a lot of experience with game design and I’m learning a lot specifically about 3D game design. I’ve never made a 3D game before [this one]. There’s some specific stuff that relates to that that I didn’t understand before I started there.”

Still other designers learn design by simply playing a lot of games. Part of X02’s design experience comes from “a lifetime as a player and hobbyist in games.” Similarly, X07 mentions learning about making games “by playing games and seeing what they do right and what they don’t do right and adapting to that sort of thing.” X14 suggests his entire design experience comes from “playing games my whole life and being open to things and being willing to take risks.” He specifically mentions playing “many different
genres now just so I know a little bit of everything so I’m not gonna be biased.” While she attributes most of her employable design skills to learning on the job, X09 makes exception for “the skills of just playing videogames and always being very critical of them, and understanding how a system of logic with rules of interactions unfolds [that] was already engrained in me.” In X21’s experience, learning from playing may require a particular mind-set: “I’ve been playing more games lately in more of a design perspective, so playing more games for less amount of time to understand their mechanics and stuff.”

**Learning design from the archives**

Beyond first-hand experience playing games, designers work through concepts they pick up from articles, books, and lectures. Many of the people who conduct design work describe reading books specifically about game design. X01 describes reading Salen and Zimmerman’s *Rules of Play* (2004) as a pivotal moment for clarifying what game design actually meant. For X14, he gained specific insight in making his game by reading a book about making that specific genre of game. He says, “Once that book came out, it completely changed the way I thought about putting this game together.” X15 describes learning from the writing of Dave Surland and Anna Anthropy on things like “what games are and why they work the way they do that totally inspired me.” X10, X15, and X21 all mention reading Koster’s *Theory of Fun* (2004). X02 mentions watching talks from GDC, the largest mainstream and independent game developer conference in the world, that are archived online. X03 mentions attending talks at XORG, and X09 talks about going to talks by “people who I know are developers to get information out of.” By far the most common source people cite for design inspiration is Gamasutra, a
major games industry website that posts articles on design and aggregates blog posts from other developers, both independent and mainstream. X02, X05, X06, X09, X13, X15, and X16 all specifically refer to getting design information through Gamasutra.

**Game design and the advanced degree**

In spite of all of these informal education opportunities in developing game design expertise, some designers learn by going to game design master’s programs. X02 reports very positively about her experience: “I learned a lot about game design as a discipline and the profession of making games in my time at [my school]... It did was it was supposed to do. I was a game designer by the end.” X11 likewise got his first experience in the games industry through his Master’s, though in describing his takeaway from his degree, he focuses less on the discrete skills and more on his bona fides: “People think [it’s] a cool thing, like ‘Wow, you mastered in video game design? That’s amazing! What does that mean?’… It’s one of the things where people are like, ‘He’s a viable option. He’s legit…. People like that I have a degree.’” X16 too selected her school for learning game design because, she says, “I knew I needed to get a game design degree to get a job in game design… Or, if I didn’t find a job, an American degree, especially in game design, is a pretty good addition to my resume if I wanted to go back home [to my native country].” Even X05, who was already teaching in a games program, found that just auditing a course taught by two fellow designers was a meaningful experience “because they were taking a very different approach to making games than I was at that point.” X09, who never went to a program, mentions being impressed not only at the quality of work from graduates of the one particular master’s program, but also the accelerated pace of learning: “I went to the [the school’s MFA] show and I just thought,
'Wow, I’m out of a job.’ These guys come out with the design knowledge that took me 10-12 years to amass.” While fewer of the people with experiences in game design actually acquired a game design degree program, those that did say the experience jump-started their careers—at least in regards to providing the game design expertise they did not have before.

**Game design overview**

Game design as a set of practices seem particularly open, compared to game development. Design work requires no technology or even documentation. It can be performed exclusively by a single person or group, but it most typically forms collaboratively as a result of a team’s input and experiences, regardless of anyone’s formal job descriptions. There are tools and techniques available for designers to use depending on their needs, interests, and technical demands, such as writing game design documentation, playtest surveys, or conducting playtests over digital beta testing services. Different sized operations may have more or less use for these documents or tools—the larger the project, the more valuable documentation is to coordinate designers with people implementing designs. At the same time, those documents can change frequently and designers do not feel bound by early documents.

At its most basic, the ability to come up with ideas for games appears to be an innate human trait. Moreover, making a game does not require developing anything unique at all, as some designers may choose to copy or draw direct references to other games. Still others may deliberately come up with something new. Design can be learned in one or two year master’s level programs or picked up over a lifetime of playing games. Simply making games, even bad ones, can improve a designer’s skills over time.
Designers also can learn from other low cost or free options, including books, online articles, and talks by other designers.

Game design for the New York City independent game development community is surprisingly open and available. Would-be and current designers face an open world of meaningful choices for acquiring and maintaining design expertise with or without financial or social resources. While some design learning opportunities and tools may require money, designers are not forced to take these opportunities in order to “enter the field,” perform the tasks, or do them well.

**Project management, or the Work of the Producer**

The role of producer in independent game work, at least in the New York City community, is the smallest of the three major task clusters after development and design that workers do full-time. Of twenty one interviews, only two identified as producers; accordingly, the data is insufficient to develop conclusions as strongly as in other full-time task groups. That said, the particular tasks of production are also like all of the other labor in independent game making interviewees describe: it is often distributed or incorporated into the work of people who are not dedicated producers. The role of the producer is also different from many of the other clusters in that it is not strictly required to create and distribute a game, at least at a small scale with relatively loose release schedules.

The tasks of a producer are essentially project management: checking on other workers, setting schedules, ensuring people are sticking to schedules, budgeting time and resources, and organizing meetings both internally and with clients. Unlike designers and developers, these tasks are not game specific and one could argue that the producer could
be a project manager in a non-culture industry job. This is true—that is exactly the position X10 is in—but because the full-time producers I interviewed are otherwise strongly integrated into the development community, it is appropriate to at least suggest that their jobs and the associated project management tasks they perform may be significant for a number of independent game making operations.

**The work of managing projects**

Full-time producer X13 describes his job at its core to be “just assessing the project on a day to day basis.” For him, this means checking with his team at the start of the day, determining how far they are in their work, managing tasks through a digital database program, and having meetings to “make sure they are on track with a specific initiative, scoping, budgeting.” This work may fall on someone who principally does something else. While working as a full-time designer, X09 describes how “people like to put me in front of clients a lot, so I did a lot of representation and client meetings and things of that nature.” She also notes that part of her job as designer includes documenting and planning QA and playtesting, not just conducting those sessions. X06 describes how his boss, aside from the design and development work he otherwise does, also sets up a meeting at the start of the week to establish what tasks will need to be done for that week.

Many of these management tasks in much smaller studios still get performed, even without a full-time producer. X10, who works on games on the side from his primary job as a project manager for a non-game company, says he does project management for his small team in addition to game design, development, and creating audio assets. He describes, much like X13, using digital services to connect with his
partners and manage work; specifically, he mentions using Trello, a workflow interface program, Google Drive for cloud storage, and Slack, a communications tool to collaborate, document, and track progress. The management tasks can be considerably less formal as well; X12 describes making sure work gets done by “bugging people to do things like business taxes which a lot of people seem to forget.” X12 also talks about how he internally, and externally, calculates for himself the appropriate amount of work he and others will need to do based on the current budget: he explains, “Usually, it’ll be something like, ‘Well, under my current budget if I’m late by this amount I will run out of money and the project’s not going to get finished.’ Or, more importantly for an indie dev, since we don’t have publisher money, we talk to people who might get the game out there, like publishers or whatever.” At its simplest, these tasks are simply the normal process of communicating with coworkers, as in X14’s situation where he emails a collaborator asking for an art asset when it is not submitted on time.

**Business methodologies**

In a few instances, interviewees discuss managing projects with the help of so-called business methodologies, sets of organizational principles and practices meant to clearly organize and track work and ensure that people get the information they need to work efficiently. On X13’s advice, the studio uses the Agile business methodology. He describes Agile as an organizational approach in which a project is broken down into “sprints” which are a period of time in which a team’s work is established at the start and new work is placed in a backlog or left to the following sprint. During a sprint, each particular task in a project may be assigned points and from there, the manager can determine how efficiently the team is working and how much work they can reasonably
be expected to do based on the number of points completed during each spring. X06 describes a similar methodology called Scrum, in which tasks at the start of the week would be “sized” to ensure an appropriate amount of work is scheduled. He notes that his boss abandoned the practice, saying, “That’s a lot of work in itself and doesn’t really mean anything. Something that one might think is super simple might take a really long time. It doesn’t matter.”

The perhaps rigid-seeming Agile methodology contrasts with X13’s prior experience with a different methodology called Waterfall. While he is unable to clearly articulate what the methodology actually consists of, especially because he experienced it while he was working in a different role at a AAA game studio at the time, he explains his strong preference for Agile specifically in contrast with his terrible experiences with Waterfall. While in Agile, if someone wants to give a worker or team new work, the process deters adding to the scope short term. X13 explains that should someone want to introduce new work in the middle of a sprint, Agile allows him as a producer to say, “OK, we’ll put that under advisement, put it into our backlog and then address it at the appropriate time.” Under Waterfall, he describes a very different scenario: “I’ve seen situations where a marketing person comes in and says ‘Oh, we need this, because we are doing this initiative. Can you just whip this up for me?’ and then the poor coder or artist is like, ‘Fine’ and then they do that and all of a sudden, they are late with their primary goal.” In his experience, Waterfall differs from Agile in that it does not divide the project into “sprints” but instead has a single on-going track that can expand. The costs from this, he recalls, can be dramatic: “There aren’t in-between milestones that can check those
points and it’s ever expanding, ever expanding until you end up at the crashing point at
the waterfall where now it’s chaos, we have to fucking get this done!”

How studios or projects adopt a business methodology requires more interviews
to clarify, but the few projects that do use them suggest the decision typically belongs to
the senior-most members with production responsibilities. In X13’s case, using Agile was
a mutual decision between him and his lead designer, whereas in X06’s case, it was his
boss’s decision and he had no direct part in establishing the process (nor did he have a
formal role in ending it, either). To be sure, most projects interviewees describe do not
use a formalized business methodology to manage work, perhaps for the reasons X06
alludes to: organizing and sizing tasks is time consuming and may not be worth the time
investment. It is worth recognizing that none of the interviewees reported being forced to
use a methodology by someone who was not involved in the producer role at all, such as
a client.

Learning to manage

Apart from X10, who learned some of his project management skills from his
undergraduate degree, interviewees, including full-time producers, report learning nearly
all of the production skills they use on the job. X13 learned to be a producer after
working in QA and being hired at an independent studio as a junior producer. From there,
he explains he gained exposure to Agile, his now preferred business methodology, and
that the work as a producer only increases in scale of responsibility as he climbs the
ladder. X19 similarly transitioned to producer from a marketing and community
management position at her company. She also cites Gamasutra and an organization
called General Assembly which offers boot camps and workshops for people working in
the tech industry in New York City. It is unclear how typical these experiences are, but
the fact that production as a practice can be learned from college, on the job, through
reading, and from local classes suggests a similarity to how game makers learn
development and design.

Given the lack of dedicated producers in many projects, it may be reasonable to
suggest that many projects lack the need for the kind of organized practices in which full-
time producers specialize. This is all the more plausible, given that for X06, X13, and
X19, they all work full-time for their respective studios which manage large (that is,
double digit) numbers of workers. In contrast with part-time projects or non-commercial
work, such studios may have greater need for efficiency and attention to budget—budgets
which a number of other interviewees do not even have and thus need no assistance
managing.

Project management overview

This being a group underrepresented in the data set, significant conclusions
cannot easily be drawn. It is worth further investigating as well the extent to which the
producer on an independent game project resembles project managers in other settings
inside and outside the creative industries. That said, even these few accounts suggest a
relatively broad degree of decision making capacity for workers responsible for
production-related tasks. Like design and development, in scenarios where a worker is
lower in a hierarchy, as X06 is relative to his boss, production decisions may not be open;
however, this arrangement does not appear to differ from the labor of design and
development which has a similar relationship to hierarchy. For those in small
organizations, the choice to even formally manage a project is an open one, and for those
that do adopt more formal management approaches such as establishing formal meetings and sizing tasks, the particulars of how each practice works falls entirely on the collaborative efforts of the producer and the people being managed.

**Distribution Management**

Unlike the tasks related to development, design or production, managing game distribution is a much smaller part of the independent game making process. In most cases, most of the work of distribution is not done by the independent game making team at all, thanks primarily to the emergence of free or inexpensive digital marketplaces and hosting sites. What remains are a smattering of small but still necessary tasks related, primarily, to managing the technical requirements and bureaucracy of digital marketplaces. This does not apply to those few cases where independent games are not being distributed on digital markets or portals; games that are physical or are installations may involve a considerable amount of increased work related to managing distribution.

That said, even in the most labor-intensive distribution practices, none of the independent game workers interviewed perform distribution related tasks as their primary work; it is side work along with development, design, or production.

**Options for distribution: the digital route**

Independent games can be distributed digitally, which is by far the most common practice discussed by interviewees. For games distributed over the internet, game makers note that the options available have changed over time. Some interviewees, particularly those making games prior to 2013, mention using online web portals: websites that host games or allow for direct downloads. Among these options, interviewees participated in distributing games through services like Newgrounds, Kongregate, Reflexive, Oberon,
and Big Fish. X13, who had some involvement with distribution for cellphone-based games pre-smartphone, mentions platforms specific for each of the service carriers. X19, in an early project, participated in distributing a title through the now defunct Xbox Live Indie Games service, a platform on Microsoft’s Xbox Live Marketplace for the Xbox 360 that, unlike the better known Xbox Live Arcade, featured games tested only through the community. X03 and X09 also mention distributing games through the iTunes store, prior to its being replaced with the App Store, as well as producing games to distribute on Facebook. X01, X05, and X08 distributed games through Steam in this period as well, but as X08 notes, “Before 2012 it was really, really hard to get on Steam, very, very hard, for an indie like me.”

More recently, new digital spaces have emerged and others have fallen out of use. Steam remains most prominent, but other PC-based marketplaces compete with it. X07 and X08 publish through GOG and, along with X01, all three have published through the Humble Store. X01, X07, X18 and X21 distribute some of their games free through personal websites, and X03, X04, X10, X17, X18, and X20 have distributed titles through Itch.IO. Mobile phone and tablet marketplaces, which largely did not exist earlier, have exploded. Nine interviewees specifically mention publishing games to the App Store with others in the process of converting games to sell on that market. Roughly the same number sell games through Google Play, the Android App Store equivalent. X03 and X10 also distributed games on the Amazon digital marketplace, and X08 notes having some of his company’s games sold through Humble Bundles for Android. The games that X11 helps to develop for an educational company are hosted on that company’s website portal, free to play. While X05 is distributing an indie game on the PS
Vita, none of the other interviewees discuss having experience selling games through portable consoles—legally, at least; two of the developers had previously made homebrew games for the Gameboy Advance.

It is important to recognize that in actuality, game makers do not choose a platform completely openly. Gatekeeping does bar certain games from entering markets. This is especially true for contemporary console publishing—a fact so apparent that no independent game makers interviewed see distributing games to them as remotely plausible. Where Gatekeeping is most visible in interviews is in regards to Steam. Prior to October 2012, Steam selected games to sell based on submissions from developers. If the game was selected, it would be sold on the marketplace (DellaFave, 2014). At this time, as X08 explains, a studio’s access to Steam was invaluable: “Before 2012, it was really, really hard to get on Steam... Then, I finally got in with them, now they’re taking my stuff, so I would always tell developers, ‘I can get you on Steam, no problem.’” Starting in October 2012, Steam introduces Steam Greenlight, a service which allows players to brows a list of submitted games and in-development projects. Steam then selects games to sell based on player votes, though the system is immensely opaque: DellaFave explains, “This is the part that Steam doesn’t fully explain.” No one knows how many votes lead to acceptance and having a “high ranking doesn’t guarantee approval.” Accordingly, many developers talk about selling or distributing their games on Steam, but this more or less means they submit the game to Greenlight and wait to find out if it is accepted. X17 submitted his game through Greenlight and explains, “They’re pretty shadowy about what’s actually required to make it through that process, but it basically just sat in Greenlight and didn’t get anything.” X20 talks about getting on Steam more
optimistically: “I’m hoping by the end of the year it’ll be available on Steam, but we’ll see how the Greenlight process goes. Because it’s not even up there yet.” If other distribution services have similar gatekeeping mechanisms that take control away from the studio submitting the game, interviewees did not address it except for one instance. X04 reports the App Store rejecting a submission for a game because it was not game-like enough. Besides this, none of the other makers reported a similar experience with a game being rejected from a platform other than Steam.

**Online distribution: the work no longer needed**

Online marketplaces and distribution options mean that most independent games made in New York City require little work to distribute, relative to pre-digital games or games produced as physical copies. Even compared to earlier online options, X05 notes that digital sales platforms provide an easily forgotten service: handling customer money. He mentions that during the shareware era, where stripped-down games were given out for free but the full game could be ordered afterwards, he worked with a shareware publisher. He describes it not being like contemporary publishers who finance projects and have considerable say over decision making processes in development; rather, they “more or less [were] just a middle man to process payments, and they would take checks and whatever. At that time, people felt really uncomfortable about paying for stuff on the internet— it was pre Paypal.” What his comments reveal is that one of the services that something like Paypal and the online services that use it, like Steam, offer is security that what the customer is paying for is going where it is supposed to go and there is no risk of theft. Before this, X05 recognized that the task of handling sales directly was impractical, and so working through a publisher who could do that was an effective tactic. That era
being past, Paypal and other secure financial transaction services render the service of a publisher for that purpose obsolete, but it remains true that game studios do not have to handle money from digital sales directly; this is provided through the distribution platform or Paypal service.

Digital products, while they lack a physical footprint, do still require storage or hosting. Interviewees that choose to offer games on personal websites, like X07 or X18, host games from storage they pay for, though X07 notes that the amount it costs is insignificant to him. In his case, he got a website cheaply through someone on a gaming website he was active with who had access to inexpensive hosting. He thinks it might cost him $60 a year, but he admits he can’t remember the last time he was asked to pay. X18 hosts a few Flash titles on her personal site, but does not mention any cost associated for storing them. As for everyone else, the cost of hosting the game files is deferred to the distribution platform, whether it be Steam, GOG, Itch.IO, the App Store, Google Play or anything else. Makers may pay a percentage of sales for the use of the service overall (except for Itch.IO), but there is no specific hosting fee. At no point in interviews did participants make any mention of how large file sizes where in relation to distributing the product digitally.

For those that don’t use personal websites, digital marketplaces can serve as the studio’s personal homepage. X04 describes a reason he chose to put a game on Itch.IO was that the service makes it “pretty easy to set up a little page for it… Rather than make my own page, I just use this preexisting store that’s super easy to put up on there. It’s super easy, it’s free, it has a little bit of a built in audience; why not, right?” On a basic level, the service simply allows a game maker to sell a game without having to create a
separate personal space for it to be found. Certainly, many people have personal sites, but as X08 notes, very little customer traffic goes through the website.

Another thing these digital services provide is pushing automatic software updates to users. X20 describes how this worked for his alpha and beta testing, which he conducted using a Google Group:

If they are members of that group, they will then be able to download the game from Google play, so they’ll download it that way. No one else will be able to see it, but only members in the group. That’s how I coordinated that. Then, same way Google play is now, if you update it, they all get the updates pushed out as with anything else. So, that worked out really well.

This service is surprisingly important—the ability to not only inform players that an update is available but to push out new versions of the game automatically and provide users with a change log is revolutionary compared to pre-digital games. Surprisingly, none of the other interviewees bothered to mention this service; possibly, it is a fact so obvious about what the distribution platform provides that it never occurred to discuss it.

Lastly, interviewees note that one of the tasks digital marketplaces provide, both for computers and mobile devices, is enhancing visibility and serving as a form of marketing. This will be discussed in more depth below in discussing public relations and marketing as a cluster of tasks independent game makers perform.

**Online distribution: the work that remains**

While digital distribution, particularly through digital marketplaces, assumes a large number of tasks that a studio would otherwise need to do from hosting to handling customer sales to actually distributing the product to those customers, the process of digital distribution is not entirely automated or hands-off. As previously addressed, part of the design and development of a game incorporates consideration of the game’s platform destination which includes making sure the game meets certain specifications
required by the service. X04 experienced this limitation when he attempted to put a simple application on the App Store, “but the app store rejected it because ‘This is not a thing, there’s no utility in this, people want utility from their apps’ and I’m like, kind of. I mean, I want this in the App Store but, ok, there’s not enough options for you, that’s fine.” For X10, a major hurdle to porting his studio’s game from Google Play to the App Store has been Apple’s security requirements that other distribution platforms do not require: “When you are building something, you need to also attach a security certificate and a provisioning profile, which is effectively another security certificate, and that’s just been to get test builds for our development devices. I’m not sure what the production build process is like yet but I’m sure it’ll have more hoops to jump through.” The process of putting a game on a platform is not always arduous, as X10 explains with getting a game from Google Play onto the Amazon store: “We were just able to import our Android executable into it, so that was a really easy process.” Most interviewees made little mention of the difficulty of porting to a platform, but X12 suggests it may be a considerable one that requires experience and knowledge of code: taking the App Store as an example, he explains, “Apple is really meticulous about these things: everything from making sure a game doesn’t use too much battery, making sure that you’re not sending too much data to someone who is on 3G or whatever. They have this whole huge checklist and to ensure compliance with this checklist, you have to basically understand the code very deeply.”

Digital platforms, like the games on them, also push updates for themselves, and when they do, it falls on studios to update games that may fail to work properly. The work likely requires a developer. X09 describes releasing games at the beginning of her
career was stressful for this reason, saying, “I feel like when it first started happening, the OS would update, everything would go wrong.” For X19, one such problem seriously compromised her team’s game before a pivotal public showing: after an iOS update broke the game’s payment system, she scrambled to get executives and offshore developers to address the problem. She notes this is a serious problem, and if “there was at least two days delay on that, it could be thousands of dollars lost.” Aside from these reports, though, this particular problem does not appear in other accounts; X09, in spite of saying updates would make everything go wrong, suggests “It’s gotten much easier in a way, but it was fine.”

Another task a studio must do to distribute a game through a digital service includes paperwork and providing basic assets for the store’s user interface. X08 goes into this in detail, explaining, “I just have to fill out forms about data, about the game, and I have to supply various graphical assets that all need to be in a certain size, screenshots have to be in a certain size, just very time consuming. It’s not a lot, but for 14 individual games, it could take a whole day, so I just don’t want to, especially if it’s just some little store front.” This is interesting, partly because X08 describes a full day working exclusively on creating the assets and paperwork for submitting a game on a store front as a lot of work in contrast to spending months on development. Additionally, like the labor of ensuring a game meets technical requirements for being featured on a store front, apart from X08’s statements, none of the other interviewees, many of whom have had direct involvement with this same situation, make no mention of any of this work. The implication is that X08’s situation is much different from those of others, and
that the amount of work that goes into paperwork and assets for a single game may be negligible, whereas 14 games worth of work is not.

Physical distribution

Independent games are not forced into online spaces, however; some interviewees have experiences in distributing physical versions of games. X05 participated in projects distributed as parts of demo CDs that could be unlocked through a publisher, as well as a game sold on a cartridge for a portable console. For a time, X08 distributed boxed editions of his games that were also sold digitally. He included “a poster in it, that kind of thing, and it looked really nice.” Distributing physical versions of games continues in spite of the viability of digital platforms since these earlier times. Many of the games X09 helps design are installations in public spaces or as part of large in-person play spaces that are not possible to sell directly to consumers by design. X11’s game is also an installation, albeit more portable, but it too cannot be sold to consumers because of its integration of large physical objects. The New York City area also features a number of contemporary arcade cabinets, including those designed by X01 and X05. In a unique case, X15 sells his game on a cartridge for a decades old platform with the help of a team of collaborators to create the cartridges, boxes, labels, and manuals. It is worth noting that while X15’s game comes on a cartridge, customers still order it using an online store.

Because each interviewee’s experiences with creating physical versions of games are unique to each other, it is not possible to draw from their accounts a meaningful position on the amount or type of work typical of each approach or construct a more general sense of decision making capacity from them. At best, to attempt such an endeavor would outline the work of a single person or team without providing any means
of evaluating the commonality of the experiences. For instance, how involved the game maker is in the actual production of the tangible version of the game varies case by case. X01 describes making his first arcade cabinets largely by hand, though he admits “we had some help with that too,” but he and the development team have no part with producing newer cabinets: “That’s being totally done by another company,” he explains. X11, on the other hand, did make his game and its physical components. For X15’s cartridges, he employs the help of a teammate who he trusts to procure the parts and assemble the devices. It is impossible in his case for him to personally create the hardware for his cartridge; this requires ordering from outside companies. This too was X08’s experience with boxed games, where he provided assets but ordered the games from a factory in bulk to then provide to customers. What can be glimpsed from these experiences is more so the increased complexity of and variety of approaches towards physical distribution relative to digital.

**Selecting a distribution option: having no choice**

Just as in the case of development and design, independent game makers do not always have the capacity to make meaningful decisions or influence decisions about game distribution. As previously discussed concerning the capacity for a developer to choose a language or engine, the choice of distribution platform is often tied strongly to the technical limitations of the project. X11’s game design inherently requires the use of “custom controllers” and “props.” Accordingly, it is impossible to distribute the game at all, outside of the version he uses for shows. Similarly, X15’s game is design exclusively to work with the extremely precise hardware of the obsolete platform for which he has designed it. His choice to use a cartridge instead of a digital ROM, which could merely
be simulated on many other computers and devices, also creates an artificial constraint on the amount of data contained in game files, such as limitations on the number of music tracks that can play on the system simultaneously. Such limitations go beyond physical games as well; having made a game in Cocos2D, X04 can only distribute his game on the App Store unless he goes back and converts the code to a different engine that is cross-platform, like Unity. Such is the reason why X20 distributes his game only for Google Play and Amazon; the initial version could not be ported to the App Store because it was in native Java. This forces him to convert the entire game to Unity before it can be ported to the App Store. Then, there is the matter of using the App Store at all. Unlike Android devices, which can download third party applications and use a number of digital store fronts, Apple mobile devices can only download games using the App Store, unless the phone is jailbroken. Independent game makers are conscious of this fact that deciding to publish onto an Apple device means automatically using the App Store as the distribution platform: as X12 notes, “Obviously, all the iOS stuff, the App Store is the only distribution platform.”

None of these particular concerns are important, of course, if the independent worker or studio works for a client because in all such reported cases, the client handles the distribution without direct involvement from the studio. X01 reports that his studio’s reputation for making “real world games” means that companies sometimes come to them specifically asking for them, “so they have already made that decision by the time they come to us,” he explains. X05 says essentially the same: “Again, for clients, it’s really not up to us. Whatever they decide to do, it’s their business.” In discussing the “not cheap” cost of producing cartridges for one of his client’s projects, X05 dismisses the
issue by saying, “That was on [their] bill. That wasn’t on our bill.” As an employee for a company with its own dedicated portal, X11 has no part of any discussion about where games he contributes to get distributed either. The experience of X13 as a producer in more traditional (though still independent) game studio similarly suggests that distribution decisions largely have nothing to do with him. He explains that even as one of the lead workers on his current project, “I don’t have a choice [about distribution] but I work heavily with people who have already have made the choices and can recommend things that I think would be prudent that they haven’t considered.” At past companies, where he was further down the corporate chain of command, he says, “In the past, I’ve recommended and they have ended up going there. That’s as far as I’ve gotten as far as having that power in terms of distribution.” Having joined her current company after this decision about distribution was already made, X18 also expresses having no impact at all on the distribution of the game.

**Distributing where the money is**

Where independent workers have the capacity to make or help make distribution decisions, one reason for selecting a particular destination is that a given platform is the perceived default on a given device and/or it is assumed to be the most profitable place for the game. X03 describes getting into iPhone development explicitly motivated by profit: “Well, originally I got into iPhone development just because I heard people were making lots of money on it with Angry Birds…. I am attracted just by the possibility of making something that you can actually make a living off of, potentially.” This logic can lead to teams deciding on a staggered rather than synchronous release strategy. X16
explains that while market share for Android and iPhones in the United States may be roughly equal, she claims:

[Android] monetizes much worse. So, it’s a safe place to launch your game [first]. You wouldn’t get a lot of money from it anyway, but at least you can get feedback from people that are gonna be downloading your game and saying, “Oh we really like, this, this, and this, but we are not willing to pay because of this, this and this” and then, when you figure it out, when you analyze all the data you gathered in a matter of a week or so, you can make some changes to the game and launch on the Apple store as a “finished” project with the monetization you thought about.

X05 describes the decision process differently: in spite of having, in some cases, multiple options for distribution on a given platform, he discusses distribution in such a way to indicate that there is only one best option for each platform and the thought of doing things differently is difficult to comprehend. When asked where he distributes his games, he explains, “Just put it on Steam, or if you’re publishing on Playstation you put it on PSN. If you’re publishing for iOS you put it on the App Store.” This is an interesting comment: PSN and the App Store are the exclusive distribution services for games on their respective platforms, while Steam is only one of the possible solutions for PC. X08, though, puts the other possibilities into context: “There’s Steam, and there’s everybody else. GOG is the top of the everybody else.” These comments demonstrate the extent to which independent game makers look to Steam as a natural outlet for the platform.

Not everyone turns to a platform because it is perceived as the most profitable or the best; sometimes, independent workers choose distribution platforms on the basis of archiving and portfolio building. X17 explains this logic succinctly: when I asked him why he put his game on Itch.IO and Steam, he explained it was not about money (he gets so few sales from it, he explains “[it] is nice because every time someone buys one, it’s like buying me lunch”): because he sees the game as more of an art project and less of a
commercial endeavor, he says, “I lulled myself into thinking it’s back catalogue… If in
the future few years, I do make something that’s more commercial or larger or
something, then these games will still be there.” Rather than describing his sales presence
as a store, he says, “It’s… more of an archive for me.” This archival approach is also how
X07 treats his freeware games from before he considered himself to be a professional
developer and began making commercial titles. He describes the process as an amateur
unceremoniously: “I would put games on [my website] as I was making them… It’s kind
of just there as an archive.” For X18, distributing her early games has also been an
archiving process, but her emphasis is on reputation building. She explains, “I just
wanted people to play my games and putting a price tag on it serves as a great barrier to
entry that is especially obvious when you aren’t someone who is known at all. It’s pretty
hard to get people to buy your games if no one knows who you are or what your game
is.”

Interviewees often disregard certain distribution channels solely based on the
perception, correct or otherwise, that it is either inaccessible or inappropriate for them.
This is, naturally, a separate concern for distribution that is specifically unsuitable for the
game; X14 designed a game with touch controls, so console distribution (which does not
integrate touch controls) is not in consideration for that game. X03 publishes to the App
Store, but when asked about Google Play, he responds, “There didn’t seem much support
and it was kind of a black box of development for me anyways, having to support
hundreds of different phones with different resolutions and everything. Also, I didn’t hear
there really is that much money in it anyways.” He likewise does not strongly favor
publishing to Steam, in spite of its much lauded status by others, saying that “I hear that’s
a good one to target, although like a lot of markets now, I hear now it’s inundated with games. They’re not as picky anymore.” In X15’s case, he technically can sell his game, which he sells as a cartridge, as a digital ROM that people could play over the computer. He disregards that suggestion: “I know people are trying to experiment with that system and see if you actually can just sell ROMs and make a living off of it, but I feel like eventually it’s going to reach this point where it kind of bottoms out. At least in the short term, maybe that’ll change over time.” For distributing her games, X18 simply does not feel like she is a big enough name to publish to consoles: “I’m not some big-time indie. Sony and Microsoft aren’t chasing me to get my games, you know?... You have to be established, I think, and have some money, I assume, to work with platform holders on that level.” These speculative responses indicate the fact that developers often are moving one step at a time and may be uninformed about the details of distributing for a particular platform. It may be possible to convince them; Unity’s wide adoption in the community, for instance, indicates the extent to which network effects can help spur particular activity.

In a few cases, interviewees mentioned not distributing using a particular platform because of the extent of the work involved in doing so. For X03, he wants to publish a game on Android, but he is concerned about supporting so many different devices with varied screen sizes and resolutions, coupled with his belief that there is less money in that platform compared to the App Store. This idea of balancing work against expected profit comes up again with X08, though his situation is considerably more complicated. Being in the position to distribute more than a dozen games, he mentions that he used to take every opportunity to distribute games on any distribution site that would have him.
However, having to fill out the paperwork and provide assets for a new store for so many games can take, in his estimate, “a whole day,” so he explains, “I just don’t want to, especially if it’s just some little store front.” Simply put, he explains that the payoff is not enough to warrant the work: “I used to put my games on every storefront, and I’d earn 50 bucks a month on each of them. Why bother with that when I could be on Steam and earn much more than that?”

**Distribution labor overview**

The labor of distribution, unlike development and design, does not amount to a significant enough amount of work to warrant the exclusive labor of a single person. None of the interviewees did work exclusively on distribution; rather, distribution labor is integrated into the other work they are doing, or it is an afterthought when the game is complete and needs to be made public. Distribution as a set of labor practices is largely offloaded onto the distribution marketplace; the hosting, storefront setup, payment processing and so on are handled by distributers, at least for digital distribution. As a result, workers have much less control over how the game is distributed than other aspects of the creative process. That said, almost none of the interviewees specifically take issue with the control ceded in exchange for having something else take those jobs from them. Only one, X21, takes aim at this. He says he feels that distribution channels have “too much power,” not only because if you want to publish to Apple, you have to use the App Store, but also because developers lose the control over “some kind of choice of how you display [your game].” He mentions wanting to host games on his own site if only because “You’d be able to control their experience of viewing it more, like how you
surround the media that you show them.” Aside from this, no one else took issue with control over distribution.25

Decision making capacity in distribution is perhaps a little less expansive compared to other sets of tasks, but in most cases, developers and studios still have a number of meaningful and viable options for distribution. While a game released for an iPhone must be on the App Store, a generic mobile game can be sold on Android using a number of different services. The same situation applies for PC where Steam dominates the marketplace but it is not the only service available and may not even be the most appropriate distributor for all kinds of games. In this sense, the decision making capacity involved in distribution is inherently connected to the decision making capacity concerning development and design, as all three clusters of tasks are interwoven necessarily.

Public Relations and Marketing

The game making process involves more than technical work; creating awareness for the game can be a major component of the game’s lifespan and its financial success or failure. The tasks involved in this category of labor include producing and distributing PR packages for the press, hosting or attending events, producing marketing materials like cards and banners, doing interviews, speaking at classes or conferences, and simply spreading information by word of mouth or social media. While in some situations these tasks may not get a considerable amount of attention, others may see it as a central part of their jobs, even when it is not in their job title; X09 explains, “No one says, ‘X09, today

25 It is worth mentioning that people did report dissatisfaction with distributors, but it was in regards to the percentage of the sales diverted to the distributor.
is the day you need to do some marketing.’ It’s just part of the production. I just know it’s gonna happen… It’s inherently part of the point.”

While this work often is, like the labor of distribution, a component of someone’s job or distributed across many people, it can sometimes be parsed out to a PR or marketing representative who assists in some capacity in performing these tasks instead. None of the interviewees reported having someone full-time performing these tasks, and, given that the labor of PR and marketing in this context was not necessarily game specific, I did not directly interview these part-time representatives that help in this capacity for independent developers and studios. The information in this subsection, therefore, concerns the PR and marketing labor performed, or delegated away, by people directly involved in the game making community in New York City.

**Working with the press**

An approach some independent game makers take is working with journalists to increase public awareness of themselves and their projects. X01 describes both making press kits himself and hiring someone else to write them as far back as his earliest work in the mid-2000’s. X05 describes working with press as a routine part of making games: “Yea, sure you do the standard things. You hopefully have a few contacts in the press and you try to get them to write a little story or whatever, if you can get into Kotaku or whatever.” X11 too mentions mining the contacts he has from his time working in the gaming press before he became a developer. While X05 and X11 suggest it is important for the game maker to have existing contacts in press, others suggest that may not always be necessary. X10, X12, and X19 discuss picking journalists and popular gaming sites and sending press kits or free copies of the game in the hopes of getting a story. At least
some of the time, this strategy pays off: X10 mentions two local outlets writing about his team and their game, as well as instances of working with bloggers and podcasters. X19 says that beyond the assistance of having cultivated press contacts before having anything to pitch, she suggests a connection can simply be serendipitous: “I would contact journalists indiscriminately and see who would bite, and I was really lucky enough that since I had no budget to work with that there are other people like me who are starting out in journalism and are searching for something that can get some hits, and they take a chance on it.”

Rarely, press reach out to makers first. X11 mentions making no effort to market his master’s thesis project, but following a well-attended show at his university, he found people reaching out to him to write about it. He also mentions a similar experience with press reporting on a game he made during a game jam on the basis of having seen it. X18 describes how lately she finds press come to her unprovoked as well: “In more recent times, I go to events and people approach me, but that was certainly not true when I started out. It became that after I became more visible online.” Key to these two accounts is how press coverage integrates into other marketing opportunities—specifically in these instances, independent gaming events and social media. It would be, accordingly, inaccurate to suggest that the fact that press came to them means that they did no work to facilitate this. Had neither attended events or cultivated online presence, it is improbable journalists would have had an interest.

**Visibility and gaming events**

Interviewees cite showing their games at local and national events as major parts of their marketing strategies. San Francisco-based Game Developers Conference (GDC)
draws a considerable number of interviewees from New York City as well as members of
the games industry worldwide; only six interviewees of the twenty-one have not attended
at least once. All but nine mention having attended XINDIECON in New York at least
once as well, and ten of the interviewees specifically mention submitting games for
awards at XINDIECON’s more prominent West Coast convention. Beyond these two
large events, interviewees mention attending the Boston Festival of Indie Games (Boston
FIG) and PAX East in Boston, MAGfest in Washington DC, South by Southwest
(SXSW) in Austin, XACTICON and XDEVCON in New York City, and Adventure X in
London. Independent game makers notably attend both events explicitly made for other
makers, like XINDIECON, GDC, and XDEVCON which, while non-makers can and do
attend, predominantly feature other people in the industry and journalists, as well as
events directed at fans, such as Boston FIG, PAX East, MAGfest, SXSW, and Adventure
X.

Far more commonly, makers report attending smaller and less formal events in
New York City and the surrounding metropolitan area. This includes teaching courses,
both for organizations like XCODE and XORG, but also guest lecturing in university
classrooms; attending local expos or art game exhibits; participating in open playtest
events, especially the one held at XNYCC; and social events like drink nights that are
held at bars in different boroughs. Some events may be held quarterly or monthly, but
many like drink nights and XNYCC’s playtest event are weekly throughout most of the
year.

How developers conduct PR and marketing work during events typically depends
on the nature of the event, but the goal, as X01 points out, is generally in creating “word-
of-mouth.” He describes doing this by taking an all-of-the-above approach: “…show it to my friends and colleagues whenever I can…a talk to XORG or doing a critique for [someone’s] class, or something like that, something where I’m contributing to the community and each of those gives me some opportunity to talk about the work I’m doing.” X05 talks about word-of-mouth as a very important part of his strategy, saying, “If you can get players to do the advertising for you, then that’s really the best form of advertising. The more you’re spouting about it, the less good it is.”

At expos, playtesting events, and fan conventions, makers often obtain a table and provide space for players to try the game. Sometimes, this doubles as an opportunity to fine-tune design and discover bugs, but this also serves as a significant opportunity to increase awareness of the game and create buzz among attendees. Rather than seeing events like this as opportunities to generate word-of-mouth, X12 explains that large fan expos especially can amount to a major component of a game’s sales:

Actually it’s really astonishing how much competitions like that are important, and conventions as well. It’s funny how PAX East started as this party for gamers, and XINDIECON started as just a way for indie developers to have their mini GDC. And these have become major business events too because a lot of indies, they make the bulk of their sales at events like this, because that’s the only place you can get such a large number of people looking at your game in a way you wouldn’t be able to afford much otherwise.

These opportunities to show at expos and large events may not be free, but the amount of spending workers put into a show varies, as well as the spending above the entry fee. X14, for instance, shows his game with a large banner he paid for and stacks of business cards. Others, like X04, are more low-key and don’t have a banner.

At events where the worker or team either have no game to show, events still serve a valuable function in networking and raising the company profile. In some cases, especially for an established figure like X05, this social aspect is the major reason for
going—and in his case, not going—to events. He explains, “I still go to a lot [of events]…I guess, at a certain point, there’s definitely a point of diminishing returns where everybody already knows who you are. In the local games community, most people know who I am so I don’t need to constantly tell people…They just kinda know who I am at this point.” X01 notes that this networking at events helps not just meet new people and friends but, “They’ve been good for me for promoting myself, especially when I’ve had an opportunity to speak at them.” Social events, even when playing games is not part of the agenda, don’t preclude opportunities to show one’s game; in one instance, I attended a drink night and met someone who, after introductions, handed me his phone to play his game which had just released that day.

Not all events are equally accessible, both physically and financially. While a majority of interviewees say they have attended GDC at least once, many only attended once because of the conference’s extreme price tag. When I attended in 2014, the independent games summit track alone cost around $300, and all access passes for 2016 cost between $1600 and a little over $2000 a person. X04 describes how he and his partner, and both of their significant others, took the trip to San Francisco to attend GDC one year with full passes. He explains, “It was by far the biggest expense for the company that year, or biggest expense over everything. That was like as much as I paid in rent for the year, it’s insane. Ok, maybe not that much, but it was still the same.” X05 says he doesn’t even go to GDC unless he is speaking and has his ticket already paid for. X09 too says that on her own dime, she can’t afford to attend GDC, but, “Luckily this job paid for me to go out, paid my ticket, got me an Air B&B and it was hunky dory, but that’s a cost prohibitive experience.” X13 has had a similar experience, only going to GDC when his
company pays for it, “because money.” That said, there exists some subversion of GDC and its price tag: X11 mentions a free “event” held in a small park outside of the convention center during GDC called Lost Levels, where people can put their names on a paper and use their time however they want. X19 also mentions taking an unorthodox approach to subverting the cost of the equally expensive E3 consumer electronics convention in which her company had a publicity stunt outside, handing out promotional materials in costume to promote their game. For a New York based developer or team, none of these options are free (unless someone else is paying for it) because one still needs to pay travel costs, but the difference in cost can be meaningful.

The social media angle

Independent game makers often rely heavily on the internet and social media for spreading information about themselves and their games. The use of social media seems a natural fit given how often makers themselves mention learning about other people’s games from those sources. X08, for instance, explains how he comes to depend on it: “I know that I’m actually finding myself making consumer choices through twitter in terms of what games and movies I watch. I never had any desire to see Mad Max [Fury Road] until everyone on my twitter feed was raving about it. Like, Mad Max? Really? Alright, I’ll check it out. And I loved it. I never would have done that.” X04 describes how Twitter is “pretty much the only place I get my game industry news, gossip, whatever, where I learn about new games and stuff like that.”

Accordingly, Facebook and especially Twitter are major components of game promotion, directly and indirectly. X10 says of his team’s game, “We’ve just been telling people and they’ve been telling people and Tweeting about it and that sort of thing.”
is not necessarily a big, momentous action, as X11 explains: “I post about my games on Twitter, I write about them on Facebook but that just goes to my feed, and I’m not a Twitter celebrity or anything like that. People follow me because they’re interested in my games but not in a large way.” However, for someone like X08, Twitter appears to be a major sales driver above many other options: “Twitter, that’s where most of my traffic comes from. That’s where I seem to get most of the engagement, through Twitter. I will post something on Twitter and suddenly it will go on all the blogs, stuff like that. Facebook doesn’t have that. My website certainly doesn’t have that.” He gives the example of the time he made his game available for preorder and was posting about it to Twitter constantly. He explains at first feeling like this would backfire: “I would write about the preorder constantly, and every time I thought I was annoying people, but every time I tweeted about it, we’d get an increase in sales. I’d actually get an increase in followers.” X14 uses his Twitter account in a different way: using the hash tag #gamedev and posting video and pictures from his game on “screenshot Saturday” using the #screenshotsaturday hash tag. While people use Facebook, it factors much less into promotion strategies. Reddit, while often unmentioned, factors into two accounts. Both X11 and X18 explain that their games both trended on the popular /r/gaming subreddit community with posts that neither had anything to do with submitting. Such exposure is short lived and, by nature of Reddit as a platform, difficult to directly cultivate because the platform discourages self-promotion (excluding subreddits dedicated to a particular studio).

Use of social media also goes beyond the specific interest of promoting a game directly. Sometimes, makers use accounts to post both about games and to reveal their
personal lives to cultivate their public image and gain recognition in the community. While X08 uses Twitter to do things like let his followers know that a game is on presale, he also explains that he does it more generally for “fun” and “mostly… to keep myself in the public eye.” Suggesting that this is fun perhaps conceals how much work this may be as well, especially because some interviewees noted that they never used Twitter before needing to use it for marketing their games. X14, for instance, explains everything he needed to pick up when he began using the platform: “Learning the ways of Twitter, learning how to follow people, learning how to hashtag or how to reach groups of people. It’s been a really fun run and now there’s a lot more responsibility.” Of all of the interviews, X18 demonstrates both the labor and potential payoff from extensive self-promotion over social media most. She explains, “I guess I’ve put a lot of effort into managing my Twitter presence, my social media presence in general, I guess not just Twitter but Instagram too.” She proceeds to say she does more than simply post about her games: “I don’t want to be one of those accounts where I’m just tweeting about my games all the time, like, ‘Play my games!’ I tweet personal stuff too.” X11 suggests that even though he doesn’t “leverage social media” for his game effectively, he believes his advertising would be more successful if he had a bigger following and were “a Twitter celebrity or anything like that.”

**Paid advertising**

While rarely discussed, some in the community mention going the route of more traditional paid advertising, if only to experiment. Only a few people mentioned taking this approach, and none of them continue to use it regularly. X20 says he spent around a thousand dollars on advertising, though he is disappointed with the results. He
experimented once with Facebook advertising, spending a hundred dollars, but he says, “I think I only got three or four installs off a hundred bucks I threw at it.” This toe-dipping is also how X08 experimented with Twitter advertising. At the time of the interview, he had only the day before purchased ads on Twitter, and he explains, “Right now, I’m gonna try spend a thousand and see how that goes.” X05 explains that he does not see the point in it, saying, “You could do Facebook advertising. I’ve done a little bit of that for more of the iOS stuff. It’s a waste. You get about as much as you pay. Maybe less.” Other kinds of paid advertising appear to no longer be meaningful options either. X05 explains, “What’s my alternatives? I’m not gonna put out an ad. First of all, there’s no magazines, so what magazine am I gonna put it in? I could put in on a gaming site, like Kotaku or something like that, but that gets pretty expensive and I think people don’t even really look at it.” Cost and scale play a significant role: X05 suggests, “Unless you’ve got the kind of money to flood all the channels, it’s just like shooting in the dark,” and X20 similarly says, “For free games, within a month, 90% of your user base has uninstalled it, so you have to keep that going and you need a budget to do that, which as an indie, you don’t have the huge dollar backing.”

If interviewees did pay money for advertising beyond attending events, they did so by hiring a part-time PR and marketing representative to help them manage the task for them. X01 mentions that while he predominantly does marketing work himself, he “occasionally hired someone to write a press release and send it out.” X02, on the other hand, says that her studio’s PR rep takes a much larger amount of the work: “She says, like, ‘Our plan is we’ve decided to do this presentation at GDC and hand out swag, and give these press interviews,’ and she’ll schedule them for me and coordinate with me and
I’ll work on the presentation and show it to her for feedback, and she’ll schedule the appointments and check in with me when I do that.” X08 also describes the extent of his PR person’s work: “She does a lot of the grunt work,” he explains, describing her involvement with contacting press, ensuring they have the correct game build, responding to their questions, and acting as a “second brain to keep me a little more focused.”

This approach only came up for makers working at established studios which they owned or worked for full-time in managerial positions. Not unlike other tasks in such studios, this decision appears to be exclusive to upper management; workers lower down in the hierarchy in studios, like X07 or X06, did not express having any connection with the decision to take this approach. X02, who at her current position has the authority to select a rep and work closely with that rep, notes that earlier in her career at a previous independent studio, that studio also had a PR person but “it was more the studio head who was more involved with him directly… I wasn’t making the decisions.”

Even if a studio brings on a PR person, the interviewees still maintain control over the marketing procedure. X02 clarifies that none of the PR work the representative does gets executed without going through others first. They have PR meetings in which “we all discuss the strategies and she’ll raise questions, and say, ‘Well I’m recommending this, this and that,’ and we’ll be like, ‘Yea, alright, that sounds good, let’s go with this, then.’” They do not completely take the decisions about the work away but reduce the work load at the studio, with the added benefit of greater expertise in the subject. X08 explains, “I could do all that myself but I’m not as good at it, and it’s very time consuming, so she handles all of that.” This mirrors the explanation that X02 provides for hiring someone for PR work as well: she explains that the decision for hiring
someone came because “we didn’t have the manpower. It would basically be on me and [my executive producer] who already each felt like we had three persons’ worth of jobs to do. We didn’t have time to sit around writing press releases. That’s just not going to happen.” However, like X08, she also points out that skill and her lack thereof factor into making that decision as well: “Also, we wanted someone who was really professional and had all the experience and had been doing this and was especially knowledgeable about the indie and adventure game fields and had all the press contacts.”

Hiring a representative to take on this PR work is available at a certain studio scale, but it does not appear to be mandatory; X05’s very low-key approach suggests that forgoing professional help with PR is still a viable option. X03, who works alone, similarly suggests that he does not need someone doing that work for him, though he recognizes the potential value: “If you paid someone to do marketing for you, they’d probably be doing very similar stuff and I just think if you’re smart enough, you can do it yourself… although, there’s only so much hours in the day so it could be helpful to hire somebody to help out.”

**Learning PR and marketing strategies**

PR and marketing strategies may not be hidden from people trying to learn, but uncertainty about the work and how best to approach it appears in some accounts. PR and marketing differ from labor around distribution, for instance, in that being uninformed or “bad” at this kind of work can possibly negatively affect the outcome of a game. X04 specifically suggests that he and his partner’s inability to market the game effectively contributed to its failure at launch. He explains, “We don’t really know that much about it, to be honest… We never really pursued actual advertising, or I don’t even know what
you do, honestly. We’re not really good at this thing.” X03, who also suffered a disappointing game launch, also seems unsure about how to do this work: “I didn’t really know who to reach out to besides game review sites and stuff, and it’s hard to get their attention, but I didn’t have as much of a focused marketing plan besides.” He says, “If you don’t want to spend a lot of money, you kind of have to do it scrappy and be smart about it,” but he does not express confidence in how to approach it.

A component that perhaps contributes to this kind of uncertainty is that many interviewees “learn” how to do this work by trying to copy successful games and simply improve over time based on past experience. X03 copied the marketing work he put into his first game for his second, but he came to realize that his first game has a target audience whereas his second is more generic. Accordingly, he finds that he cannot effectively target blogs the way he could with his first game. For X04, he mentions, “From what I could tell, the way that other games got noticed was these award shows and stuff like that.” Accordingly, his team submitted the game for popular awards, even if it was not “good enough [or] they weren’t that type of game” that would win in such a contest. He also mentions AAA games with advertising budgets: “We could do that, I guess,” he explains, “but we didn’t have a budget for that.” His team planned multiple game trailers but devoted more time to the game and only released one of them before the beta. Of course, not all of this learning comes inevitably from failure; X08’s Twitter experience points to this. Even though he was originally unsure that his constant posting about his game’s preorder would work, it ended up leading to increased sales. From this, he learned that this tactic works for him.
Unlike some other work, interviewees did not report learning PR and marketing techniques through formal classes or undergraduate work. One person did get some such instruction through an incubator program at XNYCC that focuses on providing students with connections to experienced people in the field and specific instructions to help them learn how best to promote and market themselves and their games. It was through this program, for instance, that X17 made a trailer for his game, even though he feels it was totally inappropriate for it. Despite the fact that interviewees do not report learning PR and marketing apart from experience and observation, the community does offer learning opportunities. XORG, for instance, has offered classes on user acquisition and getting noticed on mobile stores.

Like other kinds of tasks, learning how to do this labor is not hidden behind complex machinery or gatekeepers, but it is very much decentralized. This makes learning this information more difficult, but it does not affect the decision making capacities of people working in independent games. They still have the same access to learning techniques and approaches that work for them. Even in the case of hiring someone to manage the work, only a part of that job involves leveraging that person’s unique resources—access to press and the skill and experience to do the job well. The other part of it is busy work that the game maker can do as well, provided they have the time and interest.

**Asset Creation**

Since nearly all games involve sound and graphics, someone needs to make or at least assemble that material to be integrated into the game. This is the work of asset creation. It may be performed by artists, musicians or user interface (UI) specialists, as
well as by the developers or designers themselves. This category is similar to that of PR and marketing labor in that it represents a category of labor frequently delegated to others outside of the team. Unlike PR and marketing labor, however, deferring asset work is extremely common at all scales of independent production in the New York City community.

It is important to acknowledge that this study deliberately excluded people whose dominant role in making games was asset creation. For the same reason as stated for excluding PR and marketing representatives from the sample group, asset creation for games, both art and music, overlaps with similar work for non-game professions. This is not to say that there are not people in the community who work mostly or entirely on assets for games, but the primary goal of the case study is the examination of the community’s core laborers, who turn out to be developers, designers, and producers. Because asset creation for independent games was often reported as secondary work, part-time, and frequently outsourced beyond the New York City area, those workers were excluded from this case study. Instead, this section, like the previous, focuses on the labor of asset creation performed by game makers as well as the work of deferring asset creation to others.

**Deciding what assets to make**

Decisions about assets, both visual and audio, are frequently divided between the artist making the asset and the person or people designing the game more broadly. X21 describes the experience of making assets for his game with his partner, who creates the 3D assets, as collaborative: he explains, “My friend makes all the 3D stuff and I put it in the game. He does most of the textures and I made a lot of the UI stuff, but when we’re
working together, a lot of times I’m standing there saying, ‘Maybe we should make this
guy’s head bigger,’ something like that.” In other situations, like X20’s, the designer or
creative lead gives instructions on what specific things are needed and the artist returns
an interpretation of those instructions. When he needed sprites for his game, X20 came to
his artist and explained, “This is what I need. I need a [main character], here is all the
original graphics, I need tile graphics… Here is the themes I want, like each [level] was a
different theme, like one’s a cloud level, one’s a forest level. Have fun, go at it.” If
something in the graphics did not work, he would return to the artist for changes. For
example, he explains that he needed a flag to indicate a starting point but the sprite he got
from the artist was confusing playtesters. He explains, “So, we made it a green flag
instead, and that was based on feedback, so that was changed.” Many others describe
using a similar directed approach: X18 says she “directed the tone of the project basically
from the ground up” without micromanaging; X01 sometimes makes audio assets or
placeholders, but he says, “Usually, it’s giving somebody direction and giving them
feedback for them to produce art or something like that”; X07 also makes his game with
placeholder assets and then leaves his artist free reign until the artist comes to him with
questions. Unless the person making the assets is the same person designing the game,
asset creation is always described as collaborative between the artist and designer.

In spite of this collaborative synergy, interviewees typically express that they
want to let the artist do their work without significant interference. X10 explains not
having a more engaged roll in visual art decisions because he says, “Overall, I think
giving people space to do work is what helps them do their best work. Nobody likes
being micromanaged, so I think that was part of it too.” X09 presents a similar view,
saying that while her role as a designer gives her a lot of involvement in decisions about assets, she says, “I’m not a visual designer and I want to trust my visual person, my artist. I want to trust them. I know what looks good and what looks bad and I know how to talk about that. I know how to express it but I don’t believe in owning it so much that the person working on it feels stifled.” X05 too describes trying to stay hands-off: “On a big project if we hire somebody to more or less be the art director on it, I kinda let them do their job. I might say, ‘Hey, maybe you should try this, maybe you should try that,’ but I generally try to stay out of it.”

Deciding on style

With all but a few exception, interviewees suggest that decisions to adopt a particular art style relate only to broader game design decisions; for instance, X10 and his team are making a game that evokes a certain era of games, and the decision to use assets that “line up with that” relates only to the “higher directive” of the game’s design. X03 likewise discusses making a game that evokes a friendly Nintendo-like atmosphere, and the assets for it come from this position. Other times, the decision about art style is less directly related to content and just as open to different options; X11, for example, asked his artist to make pixel art style graphics with no other feedback.

There are instances, though, where interviewees mention technical restrictions that affect the kinds of assets that can be made or how they need to be made. This is most visible in X15’s case because his game was made to be played as a cartridge on obsolete hardware. This not only affects his development and design decisions, but it also affects how assets within the game can be made and how they can look. He explains that the music he commissioned could only use a limited number of tracks and one of those needs
to double as a channel for sound effects. Sprites could only be in three colors. He also explains that the complexity of actually producing sound effects for the platform made it prohibitive for him to outsource the task. He explains, “Those data files have to be less than or equal to 255 bites. I was originally going to have my musician make those, but he wouldn’t know whether his sounds were too big or not because he would have to be using the same tool chain as me, so it was basically impossible to outsource. I had to learn to do it myself.”

Aside from X15’s unusual situation, technical issues or other difficulties appear to play a much smaller role, if any, in asset creation decisions. X12 discusses collaborating with his artists to figure out what is or is not reasonable to ask of them, but he is the only person to express such limitations as a real concern. X14 mentions having to discuss with his artist about how the technical implementation of sprites and tiles would relate to the creative process, but this again relates to format and not content: he explains, for instance,

> I had to tell [my artist], basically the way it works is that that character is always in the center of the bigger plane, so [in] any animation the dude just has to stay within that center piece and the code will be moving him. He does an upper cut, keep him on the ground and the code will make him jump up and come down…. [Then,] he understood every frame needs to be the same height and width. So whatever the longest move is, however high a base move is, that has to be the height for every frame from that point on.

The only interviewee who reports making style decisions based on a skill limitation is X07. When he was making his own games (as a hobbyist, it is worth noting), he explains he chose to make pixel art because “It’s easier to get that sort of thing done. It’s easier to be able to animate a character that’s only 80 pixels tall than it would be to do a high-rez.” When he did try making art in a higher resolution, he found it discouraging: he explains, “It was too much and also it made me realize I couldn’t draw that well either because I
was doing the backgrounds on paper and then scanning them and I had to use rulers. It’s a lot easier for me to draw on the computer, I find.” Since he has become a professional though, he is working with a dedicated visual artist and only contributes placeholders and makes suggestions. The subsequent use of pixel art, then, cannot be explained as a matter of convenience or simplicity; it is, therefore, a deliberate choice and not simply the maker’s only available decision.

**Talent and asset creation: why almost no one makes their own assets**

X07’s explanation for why he chose to use pixel art for his freeware games as a hobbyist reveals how important a factor talent, or at least perceived talent, is in driving the decision to make—or perhaps more appropriately, not make—art assets for their games. Game makers are quick to recognize that asset specialists know more than they do, provided they do not have a background in making art or music. X05 explains that he has a big hand in making visual assets, not only because he sometimes acts as creative director, but also because he has a background in making digital art. As for music, he defers to his partner: “I let [him] make all those decisions. He’s more of a music guy than I am.” While X07 stepped in to make visual assets for his games for many years before having a full-time artist to collaborate with, he never made his own music. When asked why, he explains, “Because I’m not a musician.” He notes the irony in not making music because he was just as inept at making visuals, by his own approximation, but he made those anyway. He ponders, “I used to have a really crappy midi keyboard but I never felt confident enough to do the music myself, which is amusing because my art skills weren’t really up to speed when I did my first games but that never bothered me because I figured, ‘Ehhh whatever, no one’s paying for it. They won’t care.’” X04 explains that
when his team had an artist working with them, he offered feedback, but he suggests it was not very much, explaining, “I really know a lot less than the actual artist we worked with.” X11 cites his lack of skill as a significant factor for his reliance on others: he says, “I made art for one of my games and it was terrible, so I don’t want to do that anymore.” X12 also says this outright: “Because I know I’m terrible at art and because becoming good at art would be a huge investment I don’t have the time and money for, I always outsource art because I know if I do my own art, it’s going to be really bad.”

Where game makers have knowledge—or they perceive they have a similar level of artistic competency compared to whoever is making the assets—they are more comfortable involving themselves in the asset making process. X01, having previously been a musician, explains that he will sometimes make audio for his games. X19, whose role as producer often means she has little connection to asset development, describes involving herself more with decisions about music assets because she has a music background. In particular, she explains that her background enabled her “to bring back that knowledge and even have a good base for it, that when we put out the order, we could give them good references.” When X04 and his partner did not have an artist and his partner was making assets himself, X04 explains feeling more open to offering criticism because his partner “really knew that he was not good at this. He’s particularly bad at choosing colors for instance. I’m better than him at that.” This situation demonstrates that workers who feel they lack artistic talent try to leave that work to those who have that skill, but the closer in skill they feel to the artist, the more comfortable they are helping render decisions.
The data does not speak to the availability or accessibility of tools or learning how to create assets in any depth. In most cases, those who mention making assets say nothing about how they do so. X07 mentions having previously use an old drawing tablet with a broken pen and Photoshop—not free and, in Photoshop’s case, not necessarily inexpensive. That said, it is not possible to draw a meaningful conclusion from a single case. As for learning how to create assets, almost none of the interviewees mentioned making any effort to do so. If they do not already make assets, they ask others to do so. X07 is an exception, but only in part. He mentions learning simply by practicing, but he also already has a background in making assets, even if mostly for hobby projects and not at a professional level.
REFERENCES


Lovell, B. (2015). ‘We are a tight community’: social groups and social identity in medical undergraduates. Medical Education, 49, 1016-1027.


White House (2016). Women in STEM. Retrieved from [https://www.whitehouse.gov/administration/eop/ostp/women](https://www.whitehouse.gov/administration/eop/ostp/women)


