The Missing Producer: Rethinking indie cultural production in terms of entrepreneurship, relational labour, and sustainability

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Abstract

This article draws on over 60 interviews and 120 surveys with indie game developers to illustrate relational labour and entrepreneurship practices in cultural industries and their relationship to 'good work'. We first outline the changing organization of games work, the shift towards so-called indie production, and the associated rejection of creatively constrained, hierarchically managed production models. In the move towards small-scale games making, indies jettisoned producers because producers represented industry modes of work, values and creative constraints. But indies are now struggling to manage production processes without producers. We use developer narratives to highlight how this 'missing producer' work is redistributed in the form of cultural entrepreneurship, cultural intermediation and relational labour. This relational labour simultaneously supports and undermines sustainable production practices, as developers take on impossible workloads associated with networking and connecting with others. We next illustrate how the inherent valorization of growth and expansion in cultural entrepreneurship discourses may force developers

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to mimic industry practices and organization in order to find funding, but these practices inherently conflict with their desire to focus on making games as small, sustainable and creatively autonomous teams. Ultimately, we want to demonstrate how interviews and time spent with indie developers help us account for otherwise invisible and ambiguous cultural labour practices and discourses, thus allowing us to make sense of the larger context of cultural production and its possible futures.

Keywords

Cultural entrepreneurship, cultural intermediaries, cultural production, game development, 'indie entrepreneur', indie games, precarity, relational labour, sustainability

Cultural labour is mired in deepening precarity. This challenges us to rethink and reimagine modalities of cultural production in a manner consistent with what Mark Banks (2017) has termed 'creative justice'. While digital games still hover on the borderline as legitimate cultural objects, we suggest that game studies can be an 'innovator' for cultural studies in this sense. Set against the backdrop of over half a decade of ethnographic work with game studios (Whitson, 2018), this article draws on over 60 interviews and 120 surveys conducted at international game industry events. Echoing the cultural producers studied by Banks (2017), the developers we talked to value 'external' goods such as money and acclaim primarily as resources for enabling a more sustainable practice long-term: the ability to 'keep on keeping on'. Focusing on the idea of sustainability allows us to normatively evaluate different production and distribution strategies in terms of the capabilities they afford cultural producers. In this article, we discuss how the ways in which developers pursue sustainability – through relational labour and discourses of entrepreneurship – can undermine as much as support 'good work'.

In the first sections of this article, we outline the changing organization of games work, the shift towards so-called indie production and the associated rejection of occupational roles that evoke creatively constrained, hierarchically managed production models. We use developer narratives to highlight how perceived paths to indie success are tied to cultural entrepreneurship, cultural intermediation and connecting the inside of game development (i.e. making games) to outside communities of other developers, fans, funders and distributors, a practice we refer to as 'interface work'. While this interface work is often over-simplified as 'indie entrepreneurship' and taking on networking, marketing and business development tasks oriented towards external financial outcomes, we use Baym's (2015) concept of relational labour to more accurately describe these diverse practices. At the same time, we point to how relational labour may simultaneously support and undermine sustainable production practices in studios. Ultimately, we want to show how interviews and time spent with indie developers offer important insights into the taken-for-granted micro-practices evidenced in the pursuit of sustainability. This, in turn, helps us to account for otherwise invisible and ambiguous cultural labour practices and discourses, allowing us to make sense of the larger context of cultural production and its possible futures.

Background: the 'missing producer' and invisible labour in the game industry

Scholarship on video games as a cultural industry is sparse, and it is thus easy to overlook how changes to the work of making games, and how it is organized, can offer insight into creative justice. Perhaps because of their roots in software and programming (the 'industry' side of creative industries) and the seemingly endless debates as to whether games are art (Parker, 2018), those interested in cultural production rarely reflect upon games, while digital games researchers typically ignore industry and production aspects (Kerr, 2017: 9–10). Most literature on cultural production in games centres on 'AAA' mainstream studios, the structuring of large game development teams (Cohendet and Simon, 2007; O'Donnell, 2014), the evolving relationship between global production and publishing/distribution chains (Johns, 2006; Kerr, 2006; Kline et al., 2003; Williams, 2003) and the organization of the industry as a whole, including cross-cultural comparisons (Huntemann and Aslinger, 2016; Zackariasson and Wilson, 2014). Yet this land-scape is rapidly changing.

Aphra Kerr (2017) provides a high-level overview of the global industry, reflecting on recent shifts to production, circulation practices and policy that are partly tied to networked production. She demonstrates how a small number of hardware and digital platform providers (e.g. Sony, Microsoft, Nintendo, Apple and Valve) now generate significant revenues from controlling access to both physical and digital distribution, while 'a huge number of independent game developers, wholly owned subsidiaries, inhouse development team and amateurs provide the content to fill the voracious appetite of the online networks, consoles and mobile devices' (Kerr, 2017: 3). While the number of small-scale games-makers has exploded, a small number of multinational corporations (e.g. Tencent, Electronic Arts and Activision Blizzard) and platforms (Apple, Steam and Google Play) economically dominate the industry (Kerr, 2017: 55). Geographically, while multinationals tend to favour industrialized and developed countries in the global north (especially the United States, Canada, Japan, South Korea and China), small-scale production is more globally dispersed, precarious and less well-understood (see Kerr, 2017: 99–100).

The contemporary game industry is heterogeneous, varying in terms of business model, production team scale and process, budget and infrastructure. Rapid changes in technology, audience demographics, business models and other factors tied to online networked production have created an unstable ecosystem that makes it difficult to generalize about the organization of game development work. What remains constant, for 'AAA' and 'indies' alike, is that game development is seldom an individual venture. Like film and television production (Caldwell, 2008), game making evolved as a de-individuated labour process, and 'solo' auteur figures, while lauded, are the exception not the rule. Even these auteur developers are usually assisted by friends or freelancers in areas where they lack expertise (e.g. sound and music are commonly outsourced tasks). The diverse array of skills and expertise enrolled in contemporary digital game development generally requires the subtle division of labour among a group of individuals and/or one or more individuals shouldering multiple roles. The work that is consistently visible through virtually all game development, indie and mainstream alike, can be encapsulated

in three archetypal roles: the programmer, the designer and the artist (Tschang, 2005). The vast constellation of other creative and support roles, which may include level designers, animators, writers, modellers, tools engineers, sound designers, musicians and so on are organized into semi-separate streams based on this triad.

Analyses of large-scale industrial (i.e. non-indie) development identify a fourth central role: that of the producer, sometimes also called the director (see Kerr, 2006; O'Donnell, 2008). Following Fullerton (2008: 393), producers exist in a liminal zone outside of the development triad. Rather than gaining experience in art, design or programming, they are hired as assistant producers and work their way upwards. As in other cultural industries, the producer role is primarily concerned with the allocation of resources (temporal, human, material and financial) according to linear, scheduled and non-creative trajectories. The producer's job is to ensure that the development team gets the project done, on time and on budget. In the mainstream industry, the producer acts as a key interface between the 'inside' of the game development triad, and the 'outside' of the much larger global production infrastructure that includes publishing, financing, regulation, distribution, marketing, quality assurance, physical manufacturing and community support. Importantly, roles in games and other cultural industries are segregated by gender, with men dominating both more prestigious creative roles and technical work, and high concentrations of women in production roles associated with marketing, public relations (PR) and co-ordination (Hesmondhalgh and Baker, 2015: 26).

The surging growth of indie development is a direct result of low cost and accessible development tools and reduced gatekeeping in distribution channels, both of which allow developers to move away from the mainstream industry's hierarchical and top-heavy production models and to reduce reliance on mid-level management roles, including the producer (Kerr, 2017; Whitson, 2012, 2013). In short, the growth of indie is idealized as a return to garage-scale production and a distilled version of the programmer-designerartist triad, with the workplace organized in a more flat, egalitarian manner premised on creative autonomy and a more personal connection to one's work. In the indie space, the term 'producer' carries negative associations with hierarchical, risk-averse and creatively stifling large-scale game production. Producers are stereotyped as 'suits' that don't 'make' anything, and lack 'real' skills. In the process, the role is discursively reduced to its most obviously important tasks: securing funding and project management. The producer fades out of indie developer discourse in favour of new archetypes, like the romantic auteur and the scrappy entrepreneur, and the tasks of the now 'missing' producer are redistributed haphazardly on top of other responsibilities, and/or assigned to a team member who is 'not' - not an artist, not a programmer, not a designer - and/or neglected entirely. Hesmondhalgh and Baker (2015) offer insight into how this redistribution of work is gendered. Production, marketing and PR roles – and the women who performed them – are phased out in the shift from large scale to independent production. Thus, perhaps not surprisingly, while 42 percent of the United Kingdom's creative media industries workforce is female, only 6 percent of the game industry is female (Hesmondhalgh and Baker, 2015: 23-24; see also Kerr, 2017: 99).

We would like to linger on the spectre of this 'missing producer' and the changing organization of games work for a moment. Our larger project in this article and beyond is oriented towards understanding how aspects of cultural production labour become

visible or invisible in the shift towards small-scale development, offering opportunities to rethink what 'good work' is, how it can be achieved, and ultimately how it can be made less precarious. The indie rejection of the producer title and the business models it represents marks a cultural change in game development. The apparent abandonment of an entire occupational category demonstrates shifts in values and social organization, and evolving definitions of what game making is and should look like. In this article, we argue that the disappearance of the producer role can be linked to the increasing precarity of games work, as well as the increased uptake of cultural entrepreneurship. Thus, to find the 'missing producer' and address this precarity, we must examine and identify new adaptive permutations in small-scale game making.

Making work visible shapes what is being produced, as well as how it, and the people performing the work, are valued and trained. The 'missing producer' necessarily impacts how games culture is constructed and how successful games work is both defined and replicated, as well as how cultural capital is ascribed (or not) to individuals shouldering this work. When we classify work practices and break up game development into named roles, the work itself is neither created nor destroyed, but slowly over time takes on the shape of the emerging classification matrix. So, if we hypothesize that tasks traditionally subsumed under the producer role — as well as other non-development roles such as human resources (HR), PR, marketing and business development — are still necessary in small-scale game production, where does this work go when those dedicated roles are eliminated? Who, exactly, does this work? As we describe in the next section, some of this work may be taken up by outside organizations, but the rest is redistributed among the team.

Cultural entrepreneurship, sustainability and markers of indie success

To better understand independent cultural production in relation to mainstream production, and chart routes towards more sustainable game development practices, we travelled to international game industry exhibitions from 2015 to 2017, speaking to developers about their work. Interview and survey participants were recruited through the Indie MEGABOOTH, an organization that collectively purchases floor space at large gaming events and conventions, allowing small developers to pool resources and occupy the same space as large multinationals.² Along with participant observation at these events, we conducted 62 semi-structured interviews.³ We asked participants about their individual career trajectories, how they make ends meet, the role of developer events and support organizations in their game-making activities, how they define success and the perceived health of independent production scenes. At these same events, we distributed surveys to gather demographic and economic information from game studios, including where studios were located, their size, team composition and launch histories, as well as how they supported their team and funded their activities. Data from the surveys were shared directly with developer communities (Whitson, 2015; Parker, 2015).

Tracking visions of success as well as advice on how to achieve it is particularly salient when faced with the industry's current and much-lamented inability to predict which games will become hits, or even recover their development costs.⁴ Increasingly, there is

recognition from developers, critics, journalists and investors alike that making a high-quality game is not enough to ensure a studio's survival, a theme that was ever-present in our interviews. What struck us was how developers framed 'success' and routes towards it. Creative work in games increasingly leverages techniques of entrepreneurship without sharing its end goals, thus fostering the proliferation of 'cultural entrepreneurs' whose activities blur historical binaries between art and commerce. Following Ellmeier (2003), cultural entrepreneurship exists 'sans economic capital' and is predominantly undertaken by young aspiring artists whose creative work doesn't generate a secure income on its own. In the absence of economic capital, social, cultural and symbolic capital become resources that are mobilized and converted to build one's career.⁵ Our study of the game industry thus further contributes to research on cultural entrepreneurs in fashion, design, film, television and music (McGuigan, 2010; McRobbie, 2016; Scott, 2012), emphasizing how these practices and the motivations behind them differ from wider entrepreneurial activities emphasizing capital accumulation and growth. This contrast is described by Leadbeater and Oakley (1999):

Cultural entrepreneurs believe in 'small is beautiful'. They generally run small, undercapitalised and quite fragile companies. They operate in fashion driven markets that are open to new entrants and in which new technologies are driving down the costs of production but also the prices that independents can charge for their services. They often lack and do not know how to acquire the business skills and support they need to grow a company. There is nothing soft about life in these industries. These sectors are often chronically unstable and unpredictable. (p. 26)

In the late 1990s, cultural entrepreneurs were linked with the revitalization of post-industrial cityscapes, and their newfound creative autonomy would create 'local sustainable jobs, which are less prey to the ups and downs of the global economy' (Leadbeater and Oakley, 1999: 13). However, two decades on, cultural entrepreneurship is more easily linked with precarity rather than sustainability. Self-employed creators, due to competition and the oversupply of labour, are forced into both free work and entrepreneurship in the absence of alternatives that allow for stable autonomous creative work (Oakley, 2014).

The indie game developers we interviewed undertake complex identity work, commonly deploying the strategies, language and tools of entrepreneurship and business, but rejecting the end goals of growth and accumulation. For the developers we talked to, 'success' was not vested in the game being produced, nor in individualized metrics of success (critical acclaim, audience reception, sales numbers, average play time and net profit), but in the ability to sustain ongoing creative and collective processes – the social engagement related to both making games together as a team and sharing them with others. At its most basic, the end goal of developers is not so much to make art nor money, but simply to have the opportunity to continue to make more games. For developers, success is

Making another game, however that would be. I guess the shades of grey of success are if I don't have to run another Kickstarter and I can just make a game, that's ultimate success, that's all I want in the world. (*Indie studio producer, Eastern US*)

Even larger-than-average indie studios working with more substantial budgets speak of success in terms of sustainability. This is demonstrated by a veteran developer whose primary goal is to maintain the current scale of their team:

A lot of indies will define success as getting enough money from their first game so that they can make their second game, which I think is a little bit of a low bar [...] For us, it is getting to write our own destiny. And that means getting to work on another game or another two games and not have to worry too much about the time line. We've got five years of runway financially, and we can keep the team together. It's not really about growth. We don't aspire to grow to a 100-person team or become a megapublisher. We just want to take our time, make the kinds of games we want to make. If we can achieve both financial and creative freedom, that's a very rewarding way of working and living. (*Indie game marketing and business consultant, Western US*)

In contrast to software and start-up industry discourse, indie success is very rarely – if ever – defined in terms of growing a studio in scale or profit, being bought out, or 'IPOing' (selling shares and becoming a publicly traded company). Rather, success is linked with the simple capacity to 'keep on keeping on'. This points to ideological differences between indie developers and software start-ups more generally, but more importantly, it highlights a disconnect between developers and the larger funding infrastructure of the game industry which is predicated upon a growth model of success.⁶ This prioritization of keeping one's team together also seems to counter the individualizing tendencies of creative work that McGuigan (2010) identifies as emblematic of cultural industries. The fact that the end goal of game development should be more game development is telling and poses a fundamental challenge to conceptualizations of cultural work centred on the production of aesthetic, political, or economic value and distinction. We are drawn to this idea because of what it reveals about cultural labour in game making; the perceived value lies less in the cultural objects themselves (the games), or in the accumulation of capital, but in the sustained collective engagement of making and sharing games with others.

While some might argue that maintaining rather than expanding operations is simply the best developers could hope for in the current economic climate, prevailing discourses in indie games itself seem to argue the opposite, highlighting how economic and critical success leads to increased anxiety, depression and a distancing from both one's community and practice (Parkin, 2014; Schreier, 2017). Critical and market success, and the production and management work that come along with this success can pull developers away from the idealized triad of games work. For example, we can see this in the announcement that award-winning studio The Chinese Room was scaling back and 'going dark' in order to return to what they love: making games (Pinchbeck, 2017).

For The Chinese Room and the developers we spoke to, 'good work' explicitly translates into staying small, and staying with one's team:

Ultimately our goal is to just be able to stay small and independent and continue creating what we love to create. We don't want to grow into a company with employees or anything like that... We don't have that desire. (Self-employed game developer on two-person team, Western US)

Again, here, success is directly opposed to growth, which is seen as endangering creative autonomy. Sustainability desires are marked by conscious and moral efforts to economize responsibly with appropriate consideration to non-economic goals (e.g. indie developers resist studio expansion, reject more lucrative monetization models, pay subsistence wages rather than industry standards). 'Good work' for developers is linked to social organization, creative autonomy and the equitable distribution of resources and power within small teams. But, in attempting to evaluate whether developers are actually undertaking 'good work', we cannot simply look for evidence of profit satisfying over profit maximizing because, for developers, profit maximizing behaviours don't necessarily oppose sustainability discourses. The unspoken spectre of precarity leads to a mentality of accumulating 'runway' - storing resources such as payroll, rent and so on in order to survive long unpredictable periods between successful game launches (see Cook, 2015). Thus, profit maximizing can be justified as serving studio sustainability. Whether or not this sustainability is actually achieved/achievable, or morally justifies profit maximizing, we believe that the expressed value of sustainability is important in and of itself, as it is imagined in terms of continued collective engagements rather than individualized successes (i.e. economic or symbolic outcomes) in cultural industries.

Aligning with our 'missing producer' argument, many cultural industry scholars have noted the downloading of production labour onto the backs of the artists who must now not only create original content but must also produce, distribute and market their work as well as shoulder community and business management (Baym, 2015; Galuszka and Brzozowska, 2017; Kribs, 2016). While neoliberal ideologies shift risks and responsibilities onto individuals, the success of cultural entrepreneurs depends on how well they individually build and leverage collective creative networks, using favours, unpaid portfolio work and 'do it yourself' (DIY) labour to generate buzz and draw attention to their work (Scott, 2012). Now all cultural workers must become self-motivated entrepreneurs, and in the absence of the differentiated HR structures of large studios, this is absolutely the case for indies. While the end-goal of developers is by and large not entrepreneurial, the route towards sustainable development and keeping one's team together is presumed to involve adopting entrepreneurial mindsets and gaining business development ('biz dev') acumen, including investment-seeking, marketing and PR skills. The conditions of funding effectively force indies towards growth and accumulation, despite their stated goals.

It became clear in our interviews that popular notions of the 'indie entrepreneur'⁷ allow for the conflation of a studio's success with marketing and salesmanship skills, as we see below:

There is this real concern that it's getting harder and harder to get sales. I think an ironic element of the explosion indie games [are] seeing is that it's almost starting to turn back on itself and encounter the same problems AAA does – where marketing becomes, you know, so important. The teams that can afford to have someone hustle for them all the time, by design, are going to benefit more, right? [...] That's just the way it is. And an unfortunate attitude that's ingrained in a lot of developers is 'If I just make something good, it's going to be enough'.

It isn't enough, and that's no less true in games than it is in literally any other creative medium. If you create something really, really special, but you don't put any work into making sure

people find about it ... Of course, absolutely, you create the thing for the sake of creation, right? There's satisfaction in completing something, but you can't – you just can't reasonably expect the world to pay attention if you didn't really wave your hands at all. (*Staff member, Indie MEGABOOTH*)

The issue with replacing the 'missing producer' with the 'indie entrepreneur' is that entrepreneurship frameworks are too narrowly equated to marketing and biz dev, and often exist in tension with developers' own goals and conceptions of 'good work'. In other words, in embracing cultural entrepreneurship, developers must become the very things they rejected in the mainstream industry. By contrast, we argue that developers are undertaking something more complex than marketing and discoverability work: interface work that connects the game and team to select outside receptors, often via cultural intermediaries.

Cultural intermediation and working at the interface

A large part of game-making isn't about creating the game at all, but involves aligning and translating between different groups and connecting the team to the rest of the indie ecosystem. Aspects of this work are alternately referred to as nexus work (Lingo and O'Mahony, 2010), brokerage (Foster and Ocejo, 2015) and boundary work (O'Mahony and Bechky, 2008), and tie into larger discussions of trading zones (Kellogg et al., 2006; O'Donnell, 2014). These are key tasks of developers as well as intermediary actors and organizations.

Following Leadbeater and Oakley's work on independent cultural entrepreneurs, cultural intermediaries are the 'missing middle' connecting indies to global economies. They 'seek and promote new talent, circulate ideas and trends, put people in touch with one another, set up venues and provide access to commercial deals and a wider market' (Leadbeater and Oakley, 1999: 45). In the shift from large-scale to small-scale game production, understanding cultural intermediaries' role curating and determining which games and developers are visible to consuming publics, publishers, platform-holders and so on is essential to understanding both where 'missing' production work goes, and also how to address precarity within game development. Importantly, examining cultural intermediaries' work reveals the internal absence of socio-material infrastructural work on indie teams that was, in the past, subsumed under producer, PR, marketing and management roles in larger studios. In short, cultural intermediaries such as festival and event organizers, curators, community groups, funding organizations and collaborative workspaces take on some of the missing producer work in order to support, share knowledge across and stabilize a geographically distributed ecosystem of small studios (Parker, Whitson and Simon, 2018). As one indie developer and publisher puts it, 'if you want to mitigate some risks around your commercial game dev, somebody needs to do this junk' (Saltsman, 2018). However, many intermediaries are also precarious, relying on year-toyear donations and sponsorships from large platforms and publishers looking to access indie talent (Parker, Whitson and Simon, 2018).

Work not outsourced to intermediaries falls to developers themselves (or is neglected completely). Indies take on labour far beyond the triad of designer-programmer-artist. In

doing this 'not' development work, they build ties to larger cultural economic arrangements. This becomes readily apparent in the spatially and temporally limited milieu of the exhibition hall, which represents a high stakes, and often costly, opportunity to 'connect' the game to the outside world. This demanding exhibition scenario distils and compresses multiple roles and identities into individual, exhausted developer bodies. Within this space, developers are always hustling as they juggle multiple 'hats' – community management, quality assurance, HR, marketing, R&D agent, spokesperson, CEO, corporate relations officer and so on – and simultaneously carry out wider socialization and creative work as they mingle at late night mixers, seek inspiration within the seemingly endless aisles of games, and bunk with other developers in low-cost hostels and Airbnb pads.

On and off the show floor, savvy indie developers attempt to secure, move and combine both material and human resources, with or without the assistance of external intermediaries. They too become mediating agents, the interface between the team and the larger games ecosystem, connecting to other teams, fans, consumers, funding agencies and third-party providers and platforms. Successfully interweaving these multiple roles means balancing the conflicting goals of multiple actors – for example, bridging the commercial interests of platforms with the creative interests of indie scenes. One developer working on a variety of contract, table-top and indie game projects refers to himself as a 'hat rack' due to his multiple roles:

I do the day-to-day accounting of the company and make sure everybody gets paid. I do the HR when I'm bringing people on. I do all the business development of shaking hands and kissing babies. But when it comes down to it, the work that I get paid for is a mix of both engineering and design. For this plan right now I've been doing a lot of different stuff: Tech art (where I'm kind of putting levels together); level design; I've done, you know, quite a bit of engineering on our client work; and then I've also been helping this client in a way where I'm teaching him how to launch his first game and giving him all the experience of the past five or six years that brought onto me of the successes and pitfalls that he might have to worry about while working on the game and releasing it to the world. (Independent studio head, founder of local game development community in Eastern US.)

In addition to being a formative member of one of the world's largest local indie communities, this developer takes on considerable work not only creating games, but also sustaining a company that employs multiple other developers and carries out significant mentorship. It's important to note that in the above quote, only 'engineering and design' is considered real 'paid' work. Everything else related to running a studio, including finances, HR, PR and mentoring, is a second shift of missing production work.

Acting as interface, developers such as those quoted above articulate the relation between the team, the evolving game object and the social-material world of its engagement. They become a kind of heterogeneous engineer (Law, 1987), translating and transforming object and context in a series of negotiations and trials (Suchman, 2000). In the compressed timespace of the show floor, it is about responding to the person immediately viewing the game, rapidly selecting and then performing the appropriate role in response: instantaneously reframing what both the game and team are. The delicate boundary work of aligning what seem to be conflicting interests (e.g. what a player wants the game to be may clash with what fellow developers, YouTubers and streamers, platform holders and team members each want

it to be) is dependent on skilled articulation work that is centred on forging and maintaining relationships, and tuning themselves; their teams; and the game in response to unanticipated developments. As Star and Strauss argue, articulation work is invisible to rationalized models of work because it is about managing the unpredictable: it is work that gets things back on track in the face of contingencies (Star and Strauss, 1999; Strauss, 1988). This kind of work is 'missing' in much of indie development partly because it is so adaptive and socially dependent it resists easily categorization. This leads us to posit that the most successful developers are those that master relational labour, that of building and maintaining productive, intimate and seemingly authentic connections with whomever is standing across from them.

Expanding the concept of relational labour

Aligning with the cultural entrepreneurship and intermediation work described above, numerous researchers show how networking and 'connecting with others' are now essential skills, while acknowledging this work is commonly unremunerated and gendered (Duffy, 2016), relies on compulsory sociality (Neff et al., 2005) and encourages the tokenization of social relationships (Wittel, 2001). In this section, we deploy Baym's (2015) concept of relational labour to show how this networking is now seen by game developers as a critical part of cultural work. In describing relational labour, we show how it can undermine and challenge as much as it can enhance games work. We argue that the practices and costs of relational labour are not organizationally acknowledged partly because they are negatively associated with the production work and the alienated industry labour that indies are rejecting. Drawing attention to the 'missing' tasks described above allows us to develop a deeper understanding of the value and forms (positive and negative) of relational labour in games, including what - on an organizational level - this work looks like and whether it is actually effective in combatting precarity. Unpacking the dual nature of relational labour is the first step in starting to reform these practices. This duality occurs on multiple scales. As we demonstrate in this section, relational labour is both freely chosen and forced, self-exploitative and empowering, authentic and instrumental, collectivizing and individualizing. Ultimately, relational labour is both a cause of and a solution to the problem of sustainable games production.

First introduced by Nancy Baym (2015), the term 'relational labour' describes work premised on building and maintaining relationships. In digital cultural contexts where consumers are no longer conditioned to pay for content, relational labour is seen as key to financial stability. For example, Baym (2012) uses the indie music scene to illustrate how musicians leverage social media to make themselves visible, and more importantly *accessible* to audiences. This intense labour of connection is used to signal 'authenticity' and humanity, an important factor in nudging audiences/fans to pay for media content (i.e. to buy music they are conditioned to download for free, and/or to provide economic support via other means such as buying live tickets and merchandise, crowdfunding, or patronage). In games, we'd argue that these forms of labour are not new at all but are simply made more visible though social media and online connectivity. The digital traces of these practices reveal their importance, particularly in terms of helping cultural producers reach a more geographically distributed audience.

Baym argues that regardless of whether one is producing creative works or not, we are now compelled to connect with customers and clients, cultivating audiences which

function as affectively engaged communities. Relational labour is not restricted to the cultural industries. It occurs, for example, in the late-night parties of tech industry and start-up workers (Neff et al., 2005). This aligns with other arguments that contemporary work is about evoking affect – producing pleasant, comfortable, exciting feelings in others (Adkins and Jokinen, 2008; Hardt, 1999). It is no longer enough to create an engaging product (even an affectively engaging one) in an attention economy. The production of affect and building lasting customer loyalty beyond the lifespan of an individual cultural artefact or product (e.g. one song, or film or game) is achieved by offering access to creators themselves. Indie consumers 'buy in' to the creators and the communities of taste and identification that surround them, rather than consuming the static object of the game.⁸

This shift in the tenor and tone of labour is also described by other concepts such as 'emotional labour', 'affective labour', 'immaterial labour', 'venture labour' and 'creative labour'. Baym (2015) argues that what is new here is the emphasis on the 'ongoing communicative practices and skills of building and maintaining interpersonal and group relationships that is now so central to maintaining many careers' (p. 20). This is different from traditional emotional labour (Hochschild, 1983) in three important ways. First, in contrast to emotional labourers who manage feelings in single encounters, relational labour emphasizes the creation and maintenance of ongoing, persistent and ubiquitous relationships – particularly given the always-on connectivity of social networks such as Twitter and Facebook. Second, most emotional labour scholars position emotional displays to manage customer feelings as alienating, contrasting emotion expressed as part of work with 'real' emotion, but relational labour emphasizes the dialectics between personal relationships and professional labour and the blurring of economic and social relationships, leisure time and work time, consumers/clients and community. Following this, the relationships game developers build through relational labour are seen to be rewarding as personal relationships irrespective of their potential cultural and economic rewards. They are authentic and ongoing, even as they simultaneously serve an instrumental function.

Relational labour can also be differentiated from affective labour, which is commonly linked to immaterial labour (Hardt and Negri, 2001), which ties the production and manipulation of affect directly to the operation of capitalism. As a concept, affective labour has been critiqued for being ill-defined, inadequately distinguished from emotional labour, and over-optimistically operating as both a site of resistance and empowerment as well as exploitation (Hesmondhalgh and Baker, 2008). While relational labour is subject to the critique that it is too often painted in empowering rather than exploitative terms, we find that – unlike affective labour – it is much more clearly defined and demarcated, emphasizes the materiality of developer's work (rather than immateriality), and more closely mirrors how developers describe their own activities.

Whereas Baym locates relational labour in terms of connecting to fans and audiences and the commodification of those relationships, we are leveraging the concept to speak to a much broader phenomenon that does not always directly link to commodification. The relational labour that game developers perform on show floors and after-parties reaches beyond player audiences and potential consumers. Perhaps even more importantly, personal–professional relationships are developed with journalists/critics, publishers, platform holders, service providers, sponsors, investors and the larger development support networks and cultural intermediaries described above. Establishing and leveraging this network is seen as central to ensuring a studio's success: a personal sense of connection influences fans to support indies,

but it also influences press and streamers, curators and selection committees and publishers, platforms and investors in their decisions on whom to showcase and support. As with Baym's musicians, there is a spectrum of how developers approach this relational labour, from those who view their creative careers primarily as a way to build meaningful friendships within a like-minded community (an internally valued end-in-itself and indicator of 'good work'), and those who view these relationships in instrumental terms as a route to financially sustainable creative production. Regardless of how it is framed, however, the non-game-making work performed by indie developers is increasingly vital to sustainability.

Growing one's network, while acknowledged to be time consuming, expensive and just plain exhausting, is accepted as an inherent good in indie circles. Making the most of this relational labour takes extensive and tedious preparation work, with highly uncertain rewards. Take the following developer's account of the advantages of exhibiting with a group of developers in the Indie MEGABOOTH:

Discoverability is the hardest problem in games, getting people to know about your game. The Indie MEGABOOTH helps with that a lot, not only from a 'public space selling you [game] copies' standpoint but from all the other things that I mentioned that were important to me: contacts with press, contacts with, or relationships with platform holders or making friends with other developers. Maybe you wouldn't call that discoverability per se but it helps solve all those problems at the same time. [...] It helps with establishing those relationships. So being discovered with platform holders, I guess, discoverability in that sense to make that process smoother. You know, indie developers are – a lot of them are developing games in hubs where there's lots of other indie developers and good communities there. Others are not, so the Indie MEGABOOTH helps with shrinking the distance between people. (*Self-employed game developer, founder of local game development community in the Western US*.)

While this developer only made \$150 in game sales during the event and spent considerably more to travel to Seattle, they considered this a successful showing. This was made possible by extensive preparation work, going through 700 press contacts provided by the showcase organizers one-by-one and sending them personalized emails inviting them to check out the game, which led to interviews and meetings with platform holders such as Sony and Microsoft.

Developers are thus counselled to cultivate their networks, accumulating contacts in a meaningful way that goes beyond the superficial collection of business cards or LinkedIn contacts (see, for example, Kazemi, 2005). It also extends to fostering stronger connections to other developers and intermediaries, forming and reifying the indie community and the developer's place within it. These networks of contacts work as sites of informal knowledge exchange and expertise, and serve as a primary resource when a developer is looking for work, looking to hire, searching for creative inspiration or seeking professional advice. In this way, relational labour undergirds a kind of gift economy in independent production. Developers who lack economic resources instead exchange favours, labour, contacts and expertise and signal boost each other, potentially translating the cultural capital embedded in games makers to symbolic (reputational) and economic (financial) capital that can be used to sustain production (see Scott, 2012).

This relational labour is almost always in excess of indies' full-time roles as designers, artists or programmers. Developers struggle to rationalize the time and resources they spend on these uncertain prospects – time spent away from 'real' development

work. But, they work a double-shift at major industry events, such as Penny Arcade Expo (PAX) and Game Developers Conference (GDC), and year-round at local events and on social media, because they believe constant networking will lead to opportunities such as publishing offers or endorsements from popular streamers. In this sense, due to the unending stream of networking opportunities (exhibits, forums, community engagement, blogs, meet-ups and so on), developers are never *not* working.

This double shift networking is encapsulated by one developer's story. After the PAX convention had closed for the day, the developer noticed one of the PAX founders with their entourage headed their way, and frantically worked to re-start their game servers:

But it was at a moment when I thought, wow, you know, we're okay, we're funded for the next little while. We're not running out of runway at a fast rate. Both games are being well received. But if you were a little company and you know, you were on the opposite side, you know, you didn't see Jerry coming up and so you put your things away and you packed up and then you left, and then you went off to grab dinner somewhere and didn't even realize that Jerry Holkins had come by to see your awesome game that you're working your ass off for. It's an awful lot of power they have, and I don't think they're abusing it, I don't think it's like — he was self-effacing; he came in and he was like 'Am I too late, am I too late? Are you guys okay, can I play the game? Is that okay?'. Like he was super-nice, super-reasonable, but he has a lot of power.

The group stopped to play their game, but in a 'nerve-wracking' and somewhat uncomfortable moment, he watched them walk past by another set of exhibitors who had similarly scrambled to re-set all their equipment:

They knew something was up, and he didn't miss it, and he just sort of like walked by and it's like 'Oh, shit, he just walked by us'. You know, this guy – who again, a blog post could totally transform, you know, the number of visitors you get coming into your site. They can concurrently bring down your website ...

He further reflects on the power of these unpredictable, serendipitous moments of connection with influential figures to shape the success of one studio *versus* another:

I don't want to be like the kind of guys who have to impress people and like throw out the red carpet, but you might have to. You know, internet comes along, App Store comes along and Steam Greenlight comes along, everyone shouts about how this is going to emancipate us all and how we're going to be like transformed, we're not going to have publishers anymore, everything's going to be okay, it's all the craze now. And like, that doesn't happen, because some people make money out of these things and if two products are equally good, but one has all this, you know, momentum behind it and the connections and there are human beings going and like sell this and get it in front of other people, and they're hustling in a way that this company is not, then no, this one's probably going to win and that one's probably going to lose. And maybe that's not fair, but it's the way it works. (*Indie game developer, living in Central Canada, working for indie studio based in US*.)

More broadly, Boltanski and Chiapello (2007) argue that network metaphors shape our perception of work, how we interact with it and others, how we rationalize our actions and ultimately how we define our vision of the 'good life' – the end goals of our labour. The

line between work and leisure blurs, as one's personal interests, extracurricular and social relationships all serve, in some shape or another, to build one's network in addition to their skills/portfolio in anticipation of the next project. What is meant by 'connecting' is generally unspecified, erased and obscured, collapsed into marketing and networking, which is taken on piecemeal by developers. The 'network' becomes a structuring diagram and operational rhetoric, explaining how agile non-hierarchical workplaces are organized, but also doing substantial discursive duty. Following Marwick (2013), 'networking' becomes shorthand for the ways in which individual developers now acquire and display the markers of status that make their games worthy of investment and attention, reflecting the mind-set of accumulation (more contacts is always better). Relational labour's emphasis on connecting with others evokes a rosier version of Wittel's (2001) network sociality, with 'building one's network' as the individualized accumulation and tokenization of social ties that then can be instrumentally leveraged for career success.

Rather than emphasizing calculating self-promotion, instrumental networking and overt marketing, an indie developer must be read as authentic and genuinely interested in socialization. Thus, developers are now tasked with 'hosting' in terms of making encounters amiable and emotionally satisfying, and creating a space for those on and around the show floor (or on Twitter and Twitch feeds) to connect with one another (Veijola and Jokinen, 2008). Relational labour is both freely chosen *and* enforced in the sense that the social labour of connecting with audiences, potential employers, collaborators, platform holders and so on is rarely compensated but increasingly expected, and is often framed as an intrinsic reward – sharing one's passion with others (Duffy, 2016; Kerr, 2016; McRobbie, 2016). Although these connections could potentially serve instrumental purposes as a safety-net in precarious times – leading to jobs, or funding, or technical and moral support – they are discursively framed as intrinsically fulfilling, offering a sense of place and legitimacy within developer communities irrespective of any financial outcomes.

In this sense, it is important to acknowledge the dual nature of relational labour: it is both freely chosen and enforced, empowering and self-exploitative, collective yet individualizing, authentic and instrumentalized. Increasingly, developers acknowledge the importance of relational labour, explicitly linking this socially rooted connection work with sustainability and success, yet this always-on, never-ending, unbounded, invisible work also is part of what makes indie development so unpredictable, exhausting and unsustainable. Thus, the link between relational labour and sustainability is the focus of our last section.

Rethinking cultural production and entrepreneurship

We know cultural production is precarious. We know the distinction between entrepreneurship and creativity is blurring (McRobbie, 2016). We also know cultural producers don't explicitly talk about precarity (De Peuter et al., 2017), and larger social and economic trends towards individualism mean precarity is increasing, pressuring cultural producers to turn to entrepreneurialism as a response (McGuigan, 2010). Because contemporary cultural work is rooted both in individualizing discourses of creative genius and wider neoliberal pressures to individualize responsibility and risk (Bauman, 2000; Beck, 1992), this state of affairs is valorized as empowering and self-actualizing, downplaying its negative effects on employment conditions, remuneration and the 'good life'. Thus, the possibility of non-alienated

labour in more co-operative systems of production is often dismissed as a romantic delusion, and collective support structures are eroded, de-regulated, de-funded and downsized until they disappear. In the search for non-alienated, sustainable labour, independent cultural producers become lower-costs tools of capitalist systems rather than the opposition.

Kate Oakley (2014) argues that cultural workers become cultural entrepreneurs, not because they value being self-employed or desire to become industry titans, but because this is the path of least resistance to finding any creative work at all. Thus, the turn to 'forced' entrepreneurship allows cultural workers to access more empowering discourses (i.e. I launched a start-up, I am a studio owner), rather than directly acknowledge precarity (i.e. I am unemployed, I have no income). However, she argues these new forms of cultural entrepreneurship offer opportunities for re-thinking 'good work' and, following Banks (2007), the ethical orientation to cultural work in terms of working conditions, who is able to participate and be paid for this work, and one's engagement with local communities. We think that game developers' discursive prioritization of sustained collective engagements over accumulation or acclaim may gesture to less individualizing and more stable structures for creative work in general. However, this is predicated upon two things: (1) rethinking economic growth as an inherent good, particularly in terms of cultural entrepreneurship's relationship to sustainability and (2) re-assessing the link between relational labour and sustainability, including outlining the different forms relational labour takes in cultural work in order to better understand its benefits, harms and ultimate effectiveness. Both of these require much further work.

To address the first point, we believe that emphasizing sustainability talk in games is an important avenue of study because it can reorient cultural entrepreneurship discourse in more positive directions. It illustrates the need to rethink commonly assumed 'goals' of indie entrepreneurship and how we – and policy makers – evaluate success. For the developers we spoke to, commercial and artistic success weren't end-goals, but instead were framed as means towards more predictable and long-term collaborative practices: 'good work'. This desire for 'good work' undergirds indie's rejection of less-precarious work in AAA games, as well as their resistance to moving to other industries with better working conditions and pay. While developers many not explicitly mention precarity, sustainability talk is where issues of risk, volatility and working conditions are broached. While this is a responsibilized discourse in that developers blame themselves for failing or succeeding, it is not individualized in the ways we might expect, given the emphasis on individualization in cultural industries elsewhere (McGuigan, 2010). It is concerned with keeping the team together and building enduring – rather than ephemeral – connections to fans, fellow developers and local communities. Here, breakout critical and financial success might actually endanger 'good work' because it requires a larger scale of production and changes to workplace organization as the studio grows. To manage this growth in scale, developers are pushed towards hierarchical management structures and/or business relationships they explicitly rejected as alienating within the mainstream industry. Coupled with the pressure to replicate past successes, 'making it' financially endangers developers' position in the relatively flat organization of game developer communities: one is set on a pedestal apart from other developers as a celebrity, influencer, or potential patron, rather than a fellow creator (Parkin, 2014).

Paradoxically, while developers may not embrace the end-goals and individualized values of cultural entrepreneurship, emulating these strategies is seen as key to ensuring survival in an unpredictable industry. Casting oneself as an entrepreneur – complete with pitches and business plans – allows developers to access investor networks and creative industries

funding. Yet, in order to access the funds that allow for economic stability, developers must promise to grow, expand and potentially become 'big business' themselves. Successful outcomes are predicated upon espousing a desire to become the very thing they reject. Thus, funding policies, particularly cultural polices that frame studio growth as an inherent and unquestioned good, may undermine the values and models of 'good work' that the cultural producers we spoke to actually value. Following the work of McRobbie (2016), De Peuter et al. (2017) and others, we suspect that policies that prioritize the funding of collective organizations, cultural intermediaries and community support agencies rather than over-emphasizing small enterprise growth offers potential solutions, but much work is yet to be done. This includes investigating whether collaborative production communities such as shared workspaces, not-for-profit support organizations and local hubs are empirically linked with the long-term survival and satisfaction of small studios. This would allow us to more clearly evaluate the links between games, collective values and sustainable modes of production.

It is our view that long-standing and complex inequalities and injustices in the game industry can be better discerned and redressed by shifting the frame of the conversation away from both individualizing aspects of creative work and gross ideologies of games as art or games as commerce. This brings us to our second point. If we want to take sustainability in the game industry seriously, we need to make social organization – not individual actors, the games themselves, nor the larger political economic structures of the industry - our central unit of analysis. The role of the producer has only seemingly disappeared; the functions it served, holding together the heterogeneous parts of the game, the team and the surrounding community and industry are now more important than ever. Part of the unpredictability in indie games, we contend, arises from a poverty of language for articulating the broader context in which the work of game-making takes place, as opposed to the more common attempts to measure and valorize individual games and developers. As we have argued, in the move towards small-scale games making, indies jettisoned producers because producers represented industry modes of work, values and creative constraints they were fleeing from. But indies are now struggling with the very real problem of how to manage production processes without a producer. Due to their association with soulless corporate 'suits', undervalued care work and the alienated labour of mainstream industries, crucial aspects of the work of cultural production are made invisible.

From speaking and working with developers, it is clear to us that the ways in which they now organize (i.e. constellations of artists, programmers and designers) don't leave space for new roles dedicated to this specialized work, and much of it is oversimplified into 'marketing' and 'networking' language that is ill-suited to the more complex reality. In the absence of a shared descriptive language to acknowledge 'missing' production work, developers struggle to construct knowledge, envision and move towards effective team organization and sustain their studios, let alone survive outside of corporate hierarchies. Without this language, they cannot first recognize and then evaluate what actually works versus what doesn't. They wear multiple hats, endlessly interfacing and taking on impossible workloads resulting in self-exploitation, exhaustion, the potential instrumentalization of social ties and the problematic leveraging of 'passion', creative freedom and emotional investment used to justify these harms. In this sense, indie development replicates the mainstream industry's worst issues in the name of creative autonomy.

Thus, more research is needed to evaluate the full range of work performed in independent cultural production, particularly relational labour. To facilitate more informed discussion of

what sustainable development actually looks like, and how it is composed and best organized, we must go beyond interviews and observation at public events. More work within studios is needed to address our unresolved questions. What does everyday developer work look like? What practices characterize relational labour? How is 'missing producer' work distributed, recognized and rewarded, particularly along lines of gender? Do studios that prioritize relational labour survive longer than those that don't? Is sustainability impossible without the harmful effects of constant relational labour? If so, can we ameliorate these harms? What practices exist to organize and limit work and ensure it is more manageable, fair and sustainable? Are emergent management practices and non-hierarchical organizational models in indie games (i.e. co-ops, flat pay-scales for all employees, profit-sharing and so on) conducive to 'good work'? These questions are especially salient in light of increasing awareness of labour issues and collective organizing in the game industry (Schreier, 2018; Short, 2016; Weststar and Legault, 2017). In short, we need to continue making invisible labour more visible so that it can be valued, evaluated and compared to other cultural industries, and so that practices and techniques proven to promote 'good work' and creative justice can be shared more widely.

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Notes

- For example, the ESAC reports that there are 596 studios in Canada, growing 21 percent from 2015 to 2017 alone. The vast majority (496) have 25 employees or less, emphasizing the rapid growth of small independent studios. In contrast, only 26 studios have 100 employees or more (Entertainment Software Association of Canada, 2017).
- 2. All participants were either exhibitors or working in the Indie MEGABOOTH space. Only two interviewees were not developers (defined as having worked on game projects within the previous 5 years). Interviews took place in quiet, public spaces and typically lasted between 45 and 90 minutes. Each interview was recorded with consent, transcribed and manually coded. The quotes used in this article are from PAX 2015, in Seattle, Washington.
- 3. In total, we interviewed 57 participants (50 male, 6 female and 1 non-binary). This included 47 game developers, 1 journalist, 1 games publisher, 2 volunteers and 6 Indie MEGABOOTH staff. A subset of 5 developers were interviewed twice (with at least 12 months separating the interviews). These follow-ups gauged whether interviewee views had changed over time, as well as shared and validated our preliminary findings.
- 4. The competitiveness of the contemporary games market was spurred by lowering price points and influential 'free-to-play' games premised upon attention economies and platform capitalism, but it is also the result of the 'democratization of game development'. Low cost or free development tools, from engines and audio mixers, and the relative accessibility of platforms,

- from app stores, to discount bundles, to PC digital storefronts, has led to an oversaturation of games and aspiring small-scale teams.
- 5. Following Scott (2012), due to their youth, psychological resilience, independence, flexibility and unattachment to family or place, cultural entrepreneurs partially exemplify the "perfectly" mobile worker of neo-classical labour market theory, however, their motivations are not reducible to economic interest, as the necessity of reproducing labour power is in continual negotiation with their artistic and expressive interests (p. 242). Given the emphasis on unattachment, mobility and independence, cultural entrepreneurs are often single, childless men.
- 6. In order to secure publisher or venture funding, which are both predicated on a studio earning many times the initial investment, studios seeking financial support must position themselves as hungry for rapid growth and studio expansion on a short timeline, running counter to the indie ideal of sustainability without significant growth.
- 7. In games, Jason Della Rocca (2016), industry consultant, investor and former chair of the International Game Developers Association (IGDA) popularized 'indie entrepreneur' terminology. Indies, in direct contrast to the mainstream industry and contractors for-hire, are presumed to have both creative freedom and legal independence. They are subdivided further by drives for artistic distinction and/or commercial viability. 'Indie entrepreneurs', according to Della Rocca, exhibit each of these drives simultaneously. Positioned against both 'starving artists' who reject corporatization, and 'sell-outs' who lack artistic passion and blindly seek profits, indie entrepreneurs balance commercial intent with creative vision (his examples include Jon Blow, Rami Ismail and Eric Zimmerman). Given indie has traditionally been defined as a rejection of commercialization, this marks a continual if not productive tension, wherein developers must demonstrate familiarity with both life worlds. In response to perceived industry demands, indie entrepreneurs are always on the verge of becoming 'suits' and risk being labelled as inauthentic, exploiting indie communities rather than contributing to them.
- 8. This explains the phenomenon of amassing hundreds of unplayed games in one's Steam library, while continually adding more each sale. Purchasing these games acts as signifier that one affiliates with and belongs to a specific community.
- 9. Wissinger's (2007) work on fashion models draws from recent social and cultural theory related to affect to recuperate affective labour, emphasizing models' always-on production of relationships and social networks as a precondition to employment, and their adaptive management of flows of affect (which can be read as a precondition to emotion), as a way of maintaining continued employment. These complex activities resist a simplistic one-to-one linkage between prompting affect for financial reward. However, by nature of its autonomist Marxist framework, this may gloss over the gendered nature of modelling, lump highly paid elite models into the same precarious class as low-paid health care workers, and not offer a strong enough differentiation from emotional labour (McRobbie, 2016: 105–106).

References

Adkins L and Jokinen E (2008) Introduction: Gender, living and labour in the fourth shift. *NORA*– *Nordic Journal of Feminist and Gender Research* 16(3): 138–149.

Banks M (2007) The Politics of Cultural Work. New York, NY: Palgrave Macmillan.

Banks M (2017) Creative Justice: Cultural Industries, Work and Inequality. Lanham, MD: Rowman & Littlefield.

Bauman Z (2000) Liquid Modernity. Oxford: Polity Press.

Baym NK (2012) Fans or friends? Seeing social media audiences as musicians do. *Participations: Journal of Audience & Reception Studies* 9(2): 286–316.

Baym NK (2015) Connect with your audience! The relational labor of connection. *The Communication Review* 18(1): 14–22.

Beck U (1992) Modern society as a risk society. In: Stehr N and Ericson RV (eds) *The Culture and Power of Knowledge: Inquiries into Contemporary Societies*. Berlin; New York: Walter de Gruyter, pp.199–214.

- Boltanski L and Chiapello E (2007) The New Spirit of Capitalism. Brooklyn, NY: Verso Books.
- Caldwell JT (2008) Production Culture: Industrial Reflexivity and Critical Practice in Film and Television. Durham, NC: Duke University Press.
- Cohendet P and Simon L (2007) Playing across the playground: Paradoxes of knowledge creation in the videogame firm. *Journal of Organizational Behavior* 28: 587–605.
- Cook D (2015) Minimum sustainable success. Available at: http://www.gamasutra.com/blogs/DanielCook/20150415/241145/Minimum Sustainable Success.php (accessed 19 June 2015).
- De Peuter G, Cohen NS and Saraco F (2017) The ambivalence of coworking: On the politics of an emerging work practice. *European Journal of Cultural Studies* 20(6): 687–706.
- Della Rocca J (2016) Indie identities: The rise of independent entrepreneurs in Canada. Available at: http://trends.cmf-fmc.ca/blog/indie-identities-the-rise-of-independent-entrepreneurs-incanada (accessed 20 May 2017).
- Duffy BE (2016) The romance of work: Gender and aspirational labour in the digital culture industries. *International Journal of Cultural Studies* 19(4): 441–457.
- Ellmeier A (2003) Cultural entrepreneurialism: On the changing relationship between the arts, culture and employment. *International Journal of Cultural Policy* 9(1): 3–16.
- Entertainment Software Association of Canada (2017) Essential facts about the Canadian videogame industry. Available at: http://theesa.ca/wp-content/uploads/2017/10/ESAC2017 Booklet 13 Digital.pdf (accessed 8 June 2013).
- Foster PC and Ocejo RE (2015) Brokerage, mediation, and social networks in the creative industries. In: Jones C, Lorenzen M and Sapsed J (eds) *The Oxford Handbook of Creative Industries*. Oxford: Oxford University Press, pp.405–420.
- Fullerton T (2008) Game Design Workshop: A Playcentric Approach to Creating Innovative Games (2nd edn). Burlington, MA: Morgan Kaufmann Publishers.
- Galuszka P and Brzozowska B (2017) Crowdfunding and the democratization of the music market. *Media, Culture & Society* 39(6): 833–849.
- Hardt M (1999) Affective labour. Boundary 2 26(2): 89-100.
- Hardt M and Negri A (2001) Empire. Boston, MA: Harvard University Press.
- Hesmondhalgh D and Baker S (2008) Creative work and emotional labour in the television industry. *Theory, Culture & Society* 25(7–8): 97–118.
- Hesmondhalgh D and Baker S (2015) Sex, gender and work segregation in the cultural industries. *The Sociological Review* 63: 23–36.
- Hochschild AR (1983) *The Managed Heart: Commercialization of Human Feeling*. Berkeley, CA: University of California Press.
- Huntemann N and Aslinger B (eds) (2016) *Gaming Globally: Production, Play, and Place*. Basingstoke: Palgrave Macmillan.
- Johns J (2006) Video games production networks: Value capture, power relations and embeddedness. *Journal of Economic Geography* 6: 151–180.
- Kazemi D (2005) Effective networking in the games industry (Introduction). Available at: http://tinysubversions.com/2005/10/effective-networking-in-the-games-industry-introduction/(accessed 18 May 2017).
- Kellogg KC, Orlikowski WJ and Yates J (2006) Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations. *Organization Science* 17(1): 22–44.
- Kerr A (2006) The Business and Culture of Digital Games: Gamework and Gameplay. London: Sage.
- Kerr A (2016) Recruitment, work, and identity in community management: Passion, precarity, and play. In: Webster J and Randle K (eds) *Virtual Workers and the Global Labour Market: Dynamics of Virtual Work.* London: Palgrave Macmillan, pp. 117–135.

- Kerr A (2017) Global Games: Production, Circulation and Policy in the Networked Era. London: Routledge.
- Kline S, Dyer-Witheford N and de Peuter G (2003) *Digital Play: The Interaction of Technology, Culture, and Marketing.* Montréal, QC, Canada: McGill-Queen's University Press.
- Kribs K (2016) The artist-as-intermediary: Musician labour in the digitally networked era. *eTopia: Canadian Journal of Cultural Studies* 3: 1–10.
- Law J (1987) Technology and heterogeneous engineering: The case of Portuguese expansion. In: Bijker W, Hughes TP and Pinch T (eds) *The Social Construction of Technological Systems*. Cambridge, MA: The MIT Press, pp.111–134.
- Leadbeater C and Oakley K (1999) *The Independents: Britain's New Cultural Entrepreneurs*. London: Demos.
- Lingo EL and O'Mahony S (2010) Nexus work: Brokerage on creative projects. *Administrative Science Quarterly* 55(1): 47–81.
- McGuigan J (2010) Creative labour, cultural work and individualisation. *International Journal of Cultural Policy* 16(3): 323–335.
- McRobbie A (2016) Be Creative: Making a Living in the New Culture Industries. Cambridge: Polity Press.
- Marwick AE (2013) Status Update: Celebrity, Publicity, and Branding in the Social Media Age. New Haven, CT: Yale University Press.
- Neff G, Wissinger E and Zukin S (2005) Entrepreneurial labor among cultural producers: 'Cool' jobs in 'hot' industries. *Social Semiotics* 15(3): 307–334.
- Oakley K (2014) Good work: Rethinking cultural entrepreneurship. In: Bilton C and Cummings S (eds) Handbook of Management and Creativity. Cheltenham: Edward Elgar Publishing, pp.145–159.
- O'Donnell C (2008) The work/play of the interactive new economy: Video game development in the United States and India. PhD thesis, Rensselaer Polytechnic Institute.
- O'Donnell C (2014) Developer's Dilemma: The Secret World of Videogame Creators. Cambridge, MA: The MIT Press.
- O'Mahony S and Bechky BA (2008) Boundary organizations: Enabling collaboration among unexpected allies. *Administrative Science Quarterly* 53(3): 422–459.
- Parker F (2015) Indie economics part 2. *Indie MEGABOOTH*, 15 December. Available at: http://indiemegabooth.com/indie-economics-part-2/ (accesssed 28 October 2018).
- Parker F (2018) Roger ebert and the games-as-art debate. *Cinema Journal* 57(3): 77–100. DOI: 10.1353/cj.2018.0032.
- Parker F, Whitson JR and Simon B (2018) Megabooth: The cultural intermediation of indie games. *New Media & Society* 20(5): 1953–1972. DOI: https://doi.org/10.1177/1461444817711403.
- Parkin S (2014) The guilt of the video-game millionaires. *The New Yorker*, 3 April. Available at: https://www.newyorker.com/tech/elements/the-guilt-of-the-video-game-millionaires (accessed 21 February 2018).
- Pinchbeck D (2017) Changes at the studio: We're going dark for the next few months. Available at: http://www.thechineseroom.co.uk/blog/blog/changes-at-the-studio-were-going-dark-for-the-next-few-months (accessed 25 September 2017).
- Saltsman A (2018) GDC wrap-up part 1: Notes on indie publishing. Available at: https://blog.adamatomic.com/post/172365388065/gdc-wrap-up-part-1-notes-on-indie-publishing (accessed 1 May 2018).
- Schreier J (2017) Blood, Sweat, and Pixels: The Triumphant, Turbulent Stories behind How Video Games Are Made. New York: Harper Paperbacks.
- Schreier J (2018) It's time for game developers to unionize. Available at: https://kotaku.com/it -s-time-for-game-developers-to-unionize-1823992430 (accessed 2 May 2018).
- Scott M (2012) Cultural entrepreneurs, cultural entrepreneurship: Music producers mobilising and converting Bourdieu's alternative capitals. *Poetics* 40(3): 237–255.

Short T (2016) The curious appeal of crunch. Available at: https://waypoint.vice.com/en_us/article/the-curious-appeal-of-crunch (accessed 2 November 2016).

- Star SL and Strauss A (1999) Layers of silence, arenas of voice: The ecology of visible and invisible work. *Computer Supported Cooperative Work (CSCW)* 8(1–2): 9–30.
- Strauss A (1988) The articulation of project work: An organizational process. *The Sociological Ouarterly* 29(2): 163–178.
- Suchman L (2000) Organizing alignment: A case of bridge-building. *Organization* 7(2): 311–327.
 Tschang FT (2005) Videogames as interactive experiential products and their manner of development. *International Journal of Innovation Management* 9(1): 103–131.
- Veijola S and Jokinen E (2008) Towards a hostessing society? Mobile arrangements of gender and labour. *NORA Nordic Journal of Feminist and Gender Research* 16(3): 166–181.
- Weststar J and Legault M-J (2017) Why might a videogame developer join a union? *Labor Studies Journal* 42(4): 295–321.
- Whitson JR (2012) Game design by numbers: Instrumental play and the quantitative shift in the digital games industry. PhD Thesis. Carleton University, Ottawa, ON.
- Whitson JR (2013) The 'Console Ship is Sinking' and What this Means for Indies. *Loading The Journal of the Canadian Game Studies Association* 7(11): 122–129.
- Whitson JR (2015) Measuring indie MEGABOOTH's success & impact -part 1. *Indie MEGABOOTH*, 1 December. Available at: http://indiemegabooth.com/measuring-indie -megabooths-success-impact-part-1/ (accessed 28 October 2018).
- Whitson JR (2018) What can we learn from Studio Studies Ethnographies? A 'messy' account of game development materiality, learning, and expertise. *Games and Culture online first*. Available at: journals.sagepub.com/doi/abs/10.1177/1555412018783320.
- Williams D (2003) The video game lightning rod: Constructions of a new media technology, 1970–2000. *Information, Communication & Society* 6(4): 523–550.
- Wissinger E (2007) Modelling a way of life: Immaterial and affective labour in the fashion modelling industry. *Ephemera* 7(1): 250–269.
- Wittel A (2001) Toward a network sociality. Theory, Culture & Society 18(6): 51–76.
- Zackariasson P and Wilson T (2014) *The Video Game Industry: Formation, Present State, and Future.* New York: Routledge.

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