FCJ-024 A Playful Multitude? Mobilising and Counter-Mobilising Immaterial Game Labour

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Putting Play to Work in Games of Empire

2 This article is a preliminary portrait of work in the video and computer game development industry, a sector of creative, cognitive labour that exemplifies the allure of new media work. For millions of young men (and many aging ones, and some women) from Shanghai to Montréal, a job making virtual games seems employment nirvana – a promise of being paid to play. But just as game development studios typify the gloss of new media labour they also expose its dark side. Drawing on interviews we conducted with game developers in Canada, this article examines the conditions of digital game labour, this cultural industry's "work as play" mantra, the pleasures and potentialities of game production, the blemishes that mar this attractive vista, and the new infractions these tensions provoke.

3 In addition to looking at how game labour is mobilised in commercial game development, we also consider in this article how game labour is counter-mobilised – dissident directions that are emerging in the subjectivities, organisation, and creations of this form of new media labour. From tactical games created in the context of political activism to experiments in open-source game development, there are promising signs of game designers and audiences creatively reorienting their playful dispositions and intellectual capacities toward the subversion of the very logics of expropriation, commodification, and corporatisation that sustain the digital play industry in particular and global capital in general.

4 We should note at the outset that our inquiry into the composition of game labour is part of a longer study of computer and video games. Our study proposes that interactive games are the paradigmatic media of "Empire", using that term in the inflection given to it by Michael Hardt and Antonio Negri in their companion books, *Empire* (2000) and *Multitude* (2004). Our hypothesis is that digital games are produced by and productive of the multi-layered arrangement of military, economic, and subjective forces associated with the form of imperial power theorised by Hardt and Negri. To indicate the conceptual grid through which we view game labour, below we briefly outline the five reasons we think digital games are exemplary creations of Empire:

- Interactive entertainment illustrates the operation of Empire as an 'apparatus of capture', demonstrating, in particular, how capitalist development and technological innovation are propelled "from below" by subversion and autonomous activity (Hardt and Negri, 2000: 62). Early digital games were created during the Cold War by hackers and hobbyists within the military-academic complex. The creations of this autonomous invention power were only later harnessed by entrepreneurs – the act of capture that set in motion a multi-billion dollar cultural industry (Kline et al., 2003: 86-88). Since its inception, the digital play industry has continually discovered profitable new strategies by capturing counter-play.
- Befitting capital's transnational sphere of manoeuvre in the age of Empire, the corporate organisation of the game industry spans the "world market" (Hardt and Negri, 2000: 254-256). Game companies roam the entire planet in search of workers and consumers, establishing a globe-girdling network of production and consumption. The largest game firms and markets are located in the United States, Japan, and Europe, though South Korea and China are quickly becoming burgeoning regions of game-capital's expansion. To profit maximally from the differential "ranking" of labouring populations in the 'global hierarchy of production', components of the game production process are conducted in places from Vancouver to Vietnam (Hardt and Negri, 2000: 288). The transnational architecture of game production reminds us that the world market may be a "smooth" space but it's far from level (Hardt and Negri, 2000: xiii).
- The storylines, missions, and emotionality of countless video and computer games express and reinforce the military, economic, and political logics of Empire. One need not deny the players' active role in making meaning to suggest, as we do, that America's Army, with its recruitment and training goals, The Sims, with its simulation of extreme consumerism, Impossible Creatures, with its bio-engineering experiments, and Vice City: Grand Theft Auto, with its cynicism and violence are virtualities produced by and productive of Empire. Digital games are,

in this respect, an important part of the affective and symbolic "ether" of culture and communication – a 'fundamental medium of imperial control' (Hardt and Negri, 2000: 346).

5 Most central to this article are the next two reasons we offer as support of our claim that digital games are a paradigmatic media of Empire:

- Digital games exemplify Empire's mobilisation of "immaterial labour". This is a locus of a contemporary "biopower" that utilises manifold forms of life – from language to imagination – as privileged means and sites of capitalist valorisation (Hardt and Negri, 2000: 289-294). The concept of immaterial labour was initially proposed in response to the extraordinary extent to which creativity, communication, emotion, cooperation, and values were 'put to work' in post-Fordist production processes (Lazzarato, 1996: 146). The activity of making and playing games combines the range of qualitative features of immaterial labour: scientific know-how, hi-tech proficiency, cultural creativity, human sociability, and cooperative interactivity. Immaterial game labour also reveals the blurring of work and non-work time, and the severely uneven nature of the kinds of immaterial jobs available (Hardt and Negri, 2000: 356-359).
- Interactive games are exemplary of the "multitude" (Hardt and Negri, 2004; Virno, 2004). The heterogeneous oppositional agencies associated with the multitude use the tools and tendencies of Empire but to different ends, struggling within and against the imperial socio-symbolic order. The concept of immaterial labour invites us to assess the multitudinous potentialities of the new forms of work. And as we shall see later, discontented game workers have recently ignited controversy around exploitive practices, like excessive hours, that are common in "cool" media industries. Furthermore, non-commercial, dissident applications of digital play have emerged in the context of the counter-globalisation movement – from feminist game art to game-inspired experiments in distributed counter-planning.

6 In analysing video and computer games within the context of "Empire" we are not seeking merely to confirm the validity of Hardt and Negri's categories. Even though we hope there is real value in an empirically grounded case study of concepts that have generally been both presented and criticised at a high level of abstraction, our ambitions go beyond simply ratifying – or rejecting – a given critical lexicon. A concept such as immaterial labour, for example, enables us to defamiliarise interactive play, reconceive it, and glimpse aspects that are often occluded. Cultural theorists are accustomed to understanding earlier generations of media as manifestations of complex social formations that interlink forms of property, dispositions of labour, technological deployments, gendered embodiments, and ideological constellations – and contestations of all of these. This is how we perceive, say, the "Golden Age of Hollywood" as crystallising the economic, technological, and cultural logics of a burgeoning Fordist regime of accumulation. Despite the recent rise of academic Game Studies, little has been done to conceive digital play in such a perspective. The concept of Empire and the discussions surrounding it, provide, we argue, a rich and coherent – although also eminently debatable – depiction of post-Fordist, transnationalised capitalism. By examining game work in terms of immaterial labour we can start to show how it relates to other aspects of this social field – participating, for instance, both in the structures of "networked power" that uphold contemporary sovereignty, and the insurrections of the "multitude" that challenge it. This is something that neither formalist studies of individual games nor fragmented critiques of game violence can do.

'Indentured Servitude': The Corporate Organisation of Game Creativity

7 The wellspring of the $23.5 billion global digital play industry is the creative labour of game developers (DFC, 2004). Development studios and publishing companies are the two interacting institutional entities that make up the basic organisational structure of the game industry, within which autonomous creativity is captured and converted into "intellectual property" (see Rossiter, 2003). To draw an analogy to the music industry, the game publisher is like the record label, the developer like the band. Developers make games, while publishers finance, distribute, and market them.

8 Publishers include the colossal video game console-makers (Microsoft, with its Xbox, Nintendo, with its GameCube, and Sony, with its PlayStation II), a collection of transnational publishing conglomerates (e.g., Electronic Arts, THQ, UbiSoft), and a number of smaller but still powerful publishers. Publishers exert massive influence over what games are made and when, largely because of their control of financing and marketing levers. In addition to operating their own in-

house development studios, publishers contract "third-party" development studios to make games for their publishing label. Contracts primarily cover developers' wages. Royalties – usually about 20% on sales – are not paid to a studio until all of the publisher's investment costs have been recouped. Publishing is the site for strategic control in the games sector because their marketing campaigns – which today account for as much as a third of a game's total costs – command the all-important distribution bottleneck, influencing what games actually make it to a store shelf. Licensing is of increasing importance in the game industry as digital play is woven into the promotionally integrated multimedia fabric, with game, film, sport, and music companies flipping storylines, characters, athletes' images, and soundtracks back and forth. Not surprisingly, ownership in the publishing sector is highly concentrated, with tremendous control consolidating in the hands of one company in particular, Electronic Arts (EA).

9 Employing the people who make games, development studios vary widely in company size, creative autonomy, and financial security. At the top are a handful of mammoth developers with between five hundred and over two thousand employees, releasing dozens of titles each year. Some but not all of these are part of vertically integrated publishing giants, such as the ones mentioned above. Below these is a stratum of mid-sized studios that enjoy an established record with one or more publishers, have more than one hundred employees, and release a couple of games each year. Then there is an echelon of small studios with less than one hundred employees, producing one game every eighteen months or so, often scrambling from one contract to the next. Finally, there are innumerable start-ups – typically digital "garage" operations developing prototype games in the hope of getting a publishing deal. Many, perhaps most, perish.

10 Developers are significantly disadvantaged in relation to publishers, to whom all but the largest or most famous studios relinquish creative control and intellectual property rights. One studio manager describes the power relationship of a developer to a publisher as 'indentured servitude'. [1] Remarking that 'publishers like you to be totally beholden to them', a representative of a small developer describes how his studio tried to enhance its financial stability by working on a couple of game titles at one time, 'juggling' two different publishers, only for it to result in punishing treatment from the first publisher. Without a blockbuster game to their record, developers are 'the David; the publisher is the Goliath'. To that, publishers point out the '95% failure rate' of games in a hit-driven business – a ratio that means publishers contract developers knowing most games sink without a trace (IGDA, 2004a: 7). Indeed, it is not uncommon for publishers to cancel a development contract mid-way.

11 It is to the immaterial game labour that is performed in this churn-and-burn cultural economy that we turn next.

(Im)material Labour of Game Development

12 Earlier, we suggested that game development is an exemplary site of "immaterial labour". This term is used by autonomist theorists to designate the 'distinctive quality' of work in 'the epoch in which information and communication play an essential role in each stage of the process of production' (Lazzarato and Negri, 1991: 86). Hardt and Negri (2000: 289-294) distinguish various sub-categories of immaterial labour, including work with computers and networks, work manipulating and managing emotion, work involving communication and images, and work entailing high levels of coordination and cooperation. The net of immaterial labour is cast widely: bio-tech lab technicians and game designers – as much as call centre operators, childcare providers, and even virtual game players – are engaged in immaterial labour. Maurizio Lazzarato (2003) emphasises the centrality of 'inventive work' to contemporary production, an aspect of the performance of immaterial labour that he contrasts to the 'reproductive work' characteristic of the mass production of similar goods in the Fordist era. These multiple modalities of immaterial labour are mobilised in the game development labour process: just think of the combination of audience research, imagination, programming, graphics, and sound creating the feeling of terror when playing Doom 3, and the teamwork this integration demands.

13 Today's most visible immaterial workers are those in high-tech milieu and in cultural industries. But the category of immaterial labour hinges, controversially, around a contrast with the materiality of manufacturing work: at the extreme end of one side, an artificial intelligence engineer is programming at the end of a fibre optic cable; at the other end, an assembly worker stands on a factory line. We want to stress that digital games are "immaterial" commodities and

they may be designed by “immaterial” labourers – but at some point in the production chain some unmistakably material labour is required, producing a tangible good, whether that be a game cartridge or a game console. Elsewhere, we, and other researchers, have examined the international division of labour in the game industry, showing that gaming hardware is manufactured by a super-exploited, largely female, workforce in maquiladoras and in other so-called free enterprise zones of the planetary South (Dyer-Witheford, 1999; Dyer-Witheford, 2001; Kline et al., 2003; Lugo et al., 2002). Here in this article, however, we focus our attention on the labour at the “high” immaterial end of the game value chain in the North, and the unique forms of incentive and discipline it incites.

14 Despite ‘a mythology in the game industry about this boy genius’, the day of the lone-wolf commercial game developer is definitively over. Intensely cooperative, the labour of developing a single game can evolve over a period of between six and twenty-four months, and involve teams of between twenty-five and one hundred people. Increasingly sophisticated technologies and mushrooming team sizes are driving the costs of game creation upward: the burn-rate for a thirty-person development team is about $250,000 a month. Most big games cost $5-10 million to produce, and $25 million budgets are ‘around the corner’ (IGDA, 2004a: 7).

15 The main job types in game development include design, production, art, programming, and testing. Designers establish the basic game concept, characters, and play mechanics. Artists develop characters, virtual worlds, animation, special effects, and sound. Programmers, or engineers, develop “game engines” and write the code on which a game’s functionality is based. Producers have a “leadership role” in administering the budget, coordinating the project, and managing the development team; they are charged with maintaining a coherent vision of the game’s design, facilitating communication among the sub-teams, and addressing “personnel and motivational issues”. Finally, testers play a game to evaluate it for “bugs” and playability.

16 Game development typically involves four stages. In “pre-production” the conceptual infrastructure for the game is designed, its look mapped, schedules created, and resources assigned. In “prototyping” programmers create the tools that build the game, and the rendering tools which iterate animation or special effects, permitting artists to design, review, and edit their creations. Artists are working on two- and three-dimensional models, developing textures, and animation for characters and the game world, while software engineers code the game mechanics and the story. The third stage is “production”, with its sub-stages of alpha, beta, and final. Game engines are now complete, and characters and animation are embedded in a working game. At “alpha” the game isn’t fully stable, but all the art, code, and features are present. Testers are evaluating levels, and returning them for correction to the development team. At “beta” the game should be full and stable, adapted to the “platform” it will play on, and it is undergoing play testing. At “final” the product is shipped to the publisher, who will run its own tests before approving a game for release.

17 Who performs this immaterial labour?

Profile of the Virtual Game Workforce

18 The empirical basis for the analysis that follows is a three-year study of the Canadian video and computer game industry. We conducted personal interviews with about forty games workers, including producers, artists, programmers, designers, testers, studio executives, and owners. [2] Comparable to the Australian situation, the Canadian game industry is a small but significant node in the global digital play business. Canada hosts a number of renowned developers, like BioWare Corp. and Relic Entertainment; several multinational mega-publishers, like EA and Rockstar Games, operate (and buy out) studios in Canada; and the cities of Montréal and Vancouver are internationally recognised metropolitan hubs of game creation. The Canadian game sector mainly services publishers based in the United States and Europe who want to take advantage of a lower-valued Canadian currency, a skilled labour force, and, in Montréal especially, attractive government subsidies. The developers we interviewed indicate that in terms of workplace conditions the Canadian situation is broadly representative of industry norms in the United States. As for the composition of the virtual game workforce, a preliminary profile can be drawn: relatively young, generally well paid but unevenly precarious, and overwhelmingly male.

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The largest proportion of the game workforce is between their late-teens and early-thirties, a generational bracket that jives with the twenty-nine year-old age of the "average" gamer (ESA, 2004). Related to this relatively youthful composition is the finding that many game industry employees are less likely to have 'binding commitments' (IGDA, 2004a: 32). Here we note that capital has long favoured young labouring bodies for their supposedly more "mobile" life situations (Mitterauer, 1993: 120). The steady influx of graduating-age employees, in combination with a sensibility of media-industry "cool", contributes to a strong concept of "youthfulness" in studio culture. Later in this article we will see that what Angela McRobbie (2002: 110) calls 'enforced youthfulness' is a pervasive disciplinary technique in many game workplaces, fitting hand-in-glove with myriad exploitive and exclusionary practices. In terms of educational background, many new recruits to game jobs hold college or university degrees in areas such as computer science, physics, and fine arts. There are few university-level specialised game programs, though in 2004 EA – a company that sees 'universities as the next-generation of talent' – donated US$8 million to help launch just such a program (Rueff cited in Delaney, 2004).

20 Collecting reliable data on wages in the game industry is difficult. If interviewees divulged income details, they did so voluntary. What we do know is that a hierarchy is in place, with salaries varying widely according to age, rank, and department. "Celebrity" designers can earn $500,000 or more; programmers and artists, about $60,000; and game-testers are often paid minimum wage. Many games workers (with the obvious exception of testers) indicated they are satisfied with their salary, though a study conducted by the International Game Developers Association suggests otherwise, with one interviewee reporting, for example, 'games is a big salary hit' (cited in IGDA, 2004a: 77). Earnings also depend on location. Most studios are in metropolises like London, Los Angeles, and Vancouver where the cost of living is high. There are, however, a growing number of developers setting up in smaller towns, due to the growing supply of skilled labour and the lure of reduced overhead costs – including lower wages.

21 The game workforce is, by and large, male. Although the number of female game players has grown since the mid-1990s, female game workers themselves express doubt over industry reports that nearly 40% of gamers are female (ESA, 2004). Women we interviewed point out that there remains 'huge risk aversion', with publishers concentrating on males as the 'core demographic' of avid game players. Even if there has been a shift in the gender of game players, 'there's not much of a change in hiring numbers'. One estimate we received is that women account for an average of ten to fifteen percent of a developers' staff. Of these, few are in senior positions; most are in administration, human resources, or marketing, and, in development, in art or producer roles. The verdict of most women insiders is scathing: 'It's a total old boys club'. Projects to explore paths beyond the gender clichés in virtual game content 'do not get support in the industry at all.... [Y]ou have a really dominant gender leading and they're the ones who have the purse strings'. This gender imbalance is perpetuated at multiple levels, from the industry's historical bias of 'militarized masculinity', to a lack of funding for experimental start-up developers, to the reinforcing loop between the gender of avid gamers and of those who go on to make games (Kline et al., 2003: 247). Some male game workers express a desire for 'change', but acquiescence to the imbalance is common: 'there's not too much that we can do about it right now'.

22 We'll remark further on age, wage, and gender later in our discussion of the "dark side" of game work. But next we want to consider a few of the pleasures and potentialities of work in game development.

Pleasures and Potentialities of Game Labour: Creative, Cooperative, Playful

23 Creative expression, cooperative activity, and a "playful" environment arose again and again in our interviews as prime sources of enjoyment in game work. Many developers tell us that one of the greatest rewards of their jobs is the everyday pursuit and expression of creativity, and the sheer variability of their activities. A "lead" designer at a major studio conveys a sense of what work in game development offers those in its upper echelons:

24 > The best thing is the flexibility and the fact that I can continue to learn new things. It's never really the same. It never gets boring. If I do have a task that is in some way tedious, it's not going to be that way forever. I know that I'm not doing the same thing over and over again. That's absolutely the best thing.

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Responsible for generating original concepts for new games, this designer explains that he has 'a huge amount of flexibility and autonomy – and a huge amount of support in terms of getting resources for realising these ideas'. If one of his ideas is 'realised' it would translate into personal recognition or royalties – but 'from my perspective', he says, 'it doesn't need to – it's mostly about idea ownership and working on your own idea'. This designer admits, however, that the prospect of achieving this independence – let alone actually realising an "original" idea – is increasingly difficult in a risk-averse industry that prefers formula to experimentation. Yet the possibility of that creative autonomy arrests the imagination and secures the loyalty of countless aspiring developers.

26 Those on the technical side of game development cite similar attractions of work in digital play. 'Being creative at work and still using my technical skills' is a sentiment often expressed by those who come to game development via a computer science educational background. One engineer tells us 'intellectual freedom' is a key joy of his game labour:

27 > There's nobody telling you how to do something. There's no paperwork getting in your way. There are no set rules that you have to follow – rules that you don't feel are necessary. There's no formal way that you are supposed to do a technical design.

28 Others comment that game development is satisfying because the sector appreciates the creative aspect of techno-science in a way that their other employment options wouldn't. A physics engineer, for example, locates the thrill of his job in acts like solving a physics problem he hasn't seen solved elsewhere and then programming a model that enables an immersive play experience:

29 > The structures that we build are really fascinating sometimes. It's like architecture and engineering rolled into one: you're building structures that do things. Sometimes you design something that is so beautiful and it is immediately simple. But it just works together so beautifully.

30 That quote could equally describe a second pleasure of game development: cooperative sociality. Game developers often talked about space for creative freedom in relation to their studio's "flat" organisational structure, which seems to be most common in small to mid-size studios. 'There's little bureaucracy. It's just people doing their thing to make good games', explains one programmer. Others stress the self-organised character of the collaborative process:

31 > We have very little hierarchy, very little formal structure, very little "understood" ways of doing things.... In a situation where everyone more or less knows their role, it works out well: everyone just divides the work, you work on your bit, and everyone knows what to do. It just works out.

32 One studio founder calls this model of cooperation 'working anarchy'. To function smoothly, though, a smooth, open play of communication is required. One programmer at a mid-size studio uses the "matrix" concept to describe such a communication set-up on his development team:

33 > Everybody is crossing paths with everybody else. I have been very impressed that there aren't any barriers to communication. I can go to talk to someone in our tools department or I can go to talk to someone on the art side. I'm not going to run into their "director" later, who'll say to me, "Why didn't you go through me?" We keep each other informed.

34 These descriptions provide a glimpse into the extent to which, in certain game studios, the "management" of collaboration is increasingly immanent to, rather than externally imposed on, game labourers.

35 Cooperation within and among the sub-groups of a development team is cited by game workers as a most gratifying aspect of their work. Specific inflections are wide-ranging: 'a source of great solidarity', 'fun', 'the rush of being involved in a big project', 'a lot of teamwork', making 'really good friends', and, of course, creating a functioning game:

36 > Software is a very dynamic, huge system: this is something I find attractive about the games industry. You have all these different components: artists, programmers, legal, production, data. You've got all these people that don't understand each other's jobs. And (yet) you have to make that all come together as one cohesive piece of art.

37 A third pleasure of game development is what we call the work as play ethos – a central strategy deployed by game-capital to mobilise immaterial game labour. The idea that work is play has been cultivated since the early days of Atari, whose founder advocated a 'work smart, not hard' philosophy, in response to the fact that a good portion of his staff was drawn from the Californian

counter-culture (Kent, 2001: 110). The work as play milieu of contemporary game studios spans a varying range of perks and promises: flexible hours, lax dress code, free food, fitness facilities, parties, and funky interior design; and it also encompasses a host of intangible qualities, from "rebelliousness" to twisted humour to self-expression. One developer conveys a popular self-understanding of work connected to the work as play ethos:

38 > Generally, when you go to work, it's not, "Ah, I gotta go to work". It's, "I'm going to work, cool!" You come in, you see your friends, you get to make video games, and you get to play some. It's pretty cool. It's really not even so much like work here.

39 Our interviews confirm that studios bend to a work as play model in part because singularity and openness is understood to facilitate the flow of creativity. As Lazzarato (2003) remarks: "Creation is only possible when there's a certain type of confidence, of friendliness and cooperation between the people who are participating in the work". This affective situation is achieved in studios through a variation on what Andrew Ross (2003: 123-60) calls the 'industrialization of bohemia' – in particular the idea that games corporations aren't actually part of the 'corporate world'. One game producer tells us:

40 > I've never been in the "corporate world". You hear stories about it being impersonal and formal feedback reviews and all that kind of hideous stuff.…None of our people would ever attend a meeting in a suit.

41 Many games workers, from testers to managers, referred to 'a sort of rebelliousness' in studio culture. Stories to confirm this were told like legend, like the one about the 'programmer who weighed about 220 pounds [who] always made a point of taking off his shirt in meetings saying he's "hot" or whatever!' Similar anecdotes of spontaneous transgression and self-expression were happily offered to us to show that '[i]n the industry there are a lot of very bright, very jaded people'. To tap this "jaded intelligence" game studios tend to elaborate a work as play ethos that promises great 'leeway to express yourself': 'People have to be entirely comfortable to be who they are to come up with anything spontaneously, to have that real dynamic', says one producer. The "anti-corporate" culture of many game studios would seem to be exemplary of McRobbie's (2002: 109) incisive critique that, in creative workplaces, '[w]hen the individual is most free to be chasing his or her dreams of self-expression, so also is postmodern power at its most effective'.

42 Another reason studios bend to a work as play model is because many companies have a recruitment and retention problem. And here the autonomy of game labour is most bare. 'Keeping your people is this almost maniacal focus for the people that run [games] companies', says one studio manager. As a result, various disciplinary mechanisms are employed so to say to staff: 'Oh my God, you don't want to leave here!' The campus-like Vancouver-area studio of EA provides a striking example. Employing 1000 people, the sleekly designed complex features a gym, pool tables, basketball courts, a soccer field, subsidised gourmet food, and snowboarding fieldtrips, among other "bonuses". Executives tell us this is because of 'a lack of qualified talent in the games industry'. Studio executives are anxious to not only attract new youthful employees but also prevent current team-members from leaving midway through the production schedule, or defecting to a competing studio or another industry.

43 The above-discussed dimensions of the labour of game development – the capture of human creativity, the high level of cooperation, the re-making of work as play – resonate strongly with the hypothesis of Paolo Virno (2004: 110) that post-Fordist production is, in a profound paradox, the 'communism of capital'. Indeed, the autonomy of invention power – so central to the concept of the multitude – was eloquently described by many of the developers we interviewed. Not surprisingly, studio executives were fearfully aware of this autonomy:

44 > [T]he machinery and equipment now is the mind of all these people who have come up with these great ideas.…Our "collateral" walks out the door every night. And you hope like heck that they are going to show up on Monday.

45 But then he adds:

46 > [M]aybe they'll show up with some great ideas. And unlike machinery that stops working at 5:00, ours might be home, but they're thinking of new ideas, and their whole life experience is creating the potential for new ideas.

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In this respect, the work of game development is a striking illustration of 'inventive time' (Lazzarato, 2003), with the space-time of value-generation stretching across nothing less than what our studio executive calls 'whole life experience'.

The Dark Side: Passionate Play Slaves, Precarious Global Developers, and Free Networked Labour

48 Our interviews showed that developers initially delighted by their "work as play" jobs often found that the very factors that first appear so attractive – individual autonomy, flexibility, "cool" corporate culture, and even playing games – had a dark side. We turn now to instances where the logic of work as play breaks down, revealing varieties of play slaves and a ratcheting of corporate drone. Here the command mechanisms of expropriation, the process of corporate rationalisation, and the precarity of immaterial game labour are brought into sharper view.

49 In conditions of Empire, the space of exploitation may be boundless, but place still matters. The length of the working day in game studios varies widely depending on company, rank, and stage of development. Often adapting a "flex-time" policy, studios open their doors to extreme hours of digital drudgery: 'forced workaholism' is the diagnosis in IGDA's recent study of Quality of Life in the Game Industry (2004a: 6). Most North American developers are salaried, so the extraordinary overtime put in at game studios is unpaid labour. The personal accounts we received give every indication that studio workplaces are, with varying degrees of intensity, obsessively hard-driving and punishingly disassociated from domesticity, sleep, and nourishment. 'Just candy' is how a former EA executive views the playful offerings of his company's largest studio: 'Here it is, 3:30, a gorgeous afternoon, and my soccer field is empty. But I can tell you that at 3:30 this morning, there will be 75 people in this building working their butts off' (Wong cited in Taylor, 1999). EA employees report that 'work inside the company more resembles a fast-moving, round-the-clock auto assembly line' (Wingfield and Guth, 2004). In Canada, EA has been an active lobbyist against attempts to regulate hours in high-tech industry.

50 Excessive hours are widespread but disproportionately endured by younger developers. '[S]o many people in the video game industry are like nineteen or twenty – just fresh out of school', explains one game artist. He recalls his first game job:

> 51 I was working fourteen-hour days and never seeing the light of day….I just stayed there all the time….[This] partly has to do with the fact that they promote, you know, "Hey, we have a couch here! You can sleep here all night".

52 Another developer refers to a tacit understanding that new recruits are 'paying their dues with grunt work during their first year' (cited in IGDA, 2004a: 16). This "sacrificial" view of hours of work and rates of pay is endemic in knowledge and creative industries (Ross, 2000). And game companies like EA harness it to great profits. One computer science professor who spent a semester-long "residency" at EA reports that the game giant – which he describes as a 'ruthless meritocracy' – prefers to hire young students directly from university not only because of their up-to-date technological know-how but also because of their discounted salaries and heightened 'idealism' (Pausch, 2004: 7, 14). At least one manager we talked to was deeply critical of studios that

> 53 get these young guys that come out of film school, game programming school, or art school and get them to work their asses off….If I had a dime for all the people I knew who are sort of resentful of their experience at their first or subsequent game industry job because the corporate culture was very subtly coercive: "You should be working here at 8:00 at night and, if you aren't, then you're slacking off!"

54 Excessive hours spring from many sources, including the patently obvious interest of game companies in extracting more labour for less from their workers. Another factor is the nature of the revenue model that keeps most third-party development studios afloat: a developer receives a payment when they meet a "milestone" set with their publisher, normally triggered when a developer dispatches a component part of the final game product. Developers with a hit game behind them may be able to negotiate tolerable deadlines, but vulnerable start-ups and small studios – in a deeply competitive business – often can't. 'Sometimes companies are just so intent on getting that contract that they'll promise anything – at the expense of these poor programmers who have to make the bloody thing'. Another factor lies in the accelerated game development

schedule associated with "serialised" game production, a business model in which studio-factories release updates to a franchise on an annual basis.

55 All of these factors contribute to an unprecedented pace of work in game studios: 'never has the pressure to work hard and fast been stronger than it is today' (IGDA, 2004a: 22). Here so-called "crunch time" comes into the picture. Referring to extended hours in the name of meeting a production deadline, crunch time was once limited to the final stages of a game's development process. But crunch time is growing, in some cases encompassing the entire period of a game's development. Of course, from game-capital's point of view the construction of crunch time as a "normal" part of game work serves to substantially reduce labour costs, deepening the rate of exploitation and reducing the expense of hiring additional developers (IGDA, 2004a: 19).

56 This ruthless work regimen reflects and reinforces divisions based on age, gender, and parenthood. Those in long-term relationships, those who have children or want to start a family, or those who simply don't want to reduce the time of life to time spent at work, are ostensibly excluded from the game sector, or will find it tremendously difficult to commit to the ludicrous hours that can be expected of them. Enduring excessive hours without complaint is tied to the game industry's 'hard work ethic' (IGDA, 2004a: 31), which we would add has a machismo quality to it that joins the other manifestations of sexism that have functioned to exclude women from working in game studios. The candid remarks of some male games workers give us a window into the depth of sexism in the game industry, like the developer who explained that 'girls' often don't have 'the right ideas' about games or another who advised us that it 'looks good' for a developer to employ 'some girls'. As the female workers we talked to remind us, the gender composition in this sector is 'not a video game problem; it's much bigger than that'.

57 Some games workers explain their reasons for consenting to these conditions, despite having major concerns about them. Excessive hours and punishing work rhythms is fed by, according to one developer, the game sector's 'concept of ownership':

> 58 When you are responsible for something in a game, you "own" it. If something goes wrong with that part of the game after release, you can pretty much kiss your ass goodbye....That's where a lot of the stress comes from....You're not supposed to do overtime, but you don't mind doing it because you're given "ownership".

59 Here we catch a view of the demanding practices of self-regulation in game studios, an aspect of Empire's search for ways of realising 'unmediated command over subjectivity itself' (Lazzarato, 1996: 135; see also McRobbie, 2004). Consider this developer's remarks:

> 60 When you work in this industry you are judged for what you've done. So you want to make a good name for yourself. You want people to consider you a hard worker, a good worker – a guy that can do a bit more than what's expected. Because the thing with the game industry is that it is, really, a small business.

61 Punishing hours are, however, generating the conditions of a crisis for game-capital. Stress is a major problem in development studios. Referring to the exhausting rhythm of work, one game artist comments: 'I don't think it's good for you to work like that, that often. And to be creative all the time without a break – it just isn't good for your brain, or for your creativity, potentially'. Moreover, a growing number of game developers are responding to the "crunch time" of work in game development by fleeing the sector altogether. The turnover rate in the game industry is described as 'nothing short of catastrophic': over 50% plan to leave the industry within ten years, 35% within five years (IGDA, 2004a: 17).

62 Until now, when a studio faces discontent about overwork, they have tended to employ new strategies to bind their "lead" workers to the accumulatory rhythm of studio production. One such strategy is what one studio manager calls 'the golden shackles':

> 63 You work on a game and they offer you a profit-sharing agreement – but you have to stay at the company to take advantage of it. So you work for two years on a game, with the intent that if it sells a lot, then you'll get a share of that. Then it takes another six months to get the game to market. And then it takes another six months before the money starts to filter back. So you've got this employee who stuck around for at least another year to get in on that profit-sharing, and by this time they've already started on another game and are sort of stuck there.
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> 64

Game-capital also relies upon legal control mechanisms to get workers 'stuck' to a workplace. The corporate capture of invention power and its conversion into "IP" is an aspect of game work that begins with the employment contract. 'Normally, you sign a contract of employment with a company and any idea you have becomes theirs'. Although we encountered at least one mid-sized company that had a remarkably progressive policy of assuring employee's rights to ideas they enunciated, this is typically not the case, and many studios are rife with quiet suspicion about ideas being 'stolen'.

65 The seriousness of IP issues in the game studio system is revealed in a legal battle between two major multinational publisher studios in Canada. Five "star" designers at UbiSoft's Montréal studio left in 2003 to work at EA. UbiSoft took its ex-employees – and EA – to court. The five had signed "non-compete" agreements and this legally blocked them from working for another North American games company for one year after terminating their employment. A court judged in favour of UbiSoft. Although EA's motivations are transparent enough, one spokesperson for the company aptly remarked: 'It seems that UbiSoft thinks of Montréal as a plantation – any worker who dares to escape will be hunted down by lawyers and forced out of business' (cited in Feldman, 2003).

66 The UbiSoft-EA conflict reveals the extent of the corporate rationalisation of game creativity today. Many of the designers, artists, and programmers whom we talked to lament the deteriorating state of creativity in game development: 'No one is doing any original games'. Another start-up developer remarks: 'the industry is making so much money selling established product, there seems to be very little incentive to break out of it and try new stuff'. This tension is intensified as publishers (most of which are publicly traded) grow more conservative, preferring the market predictability of proven franchises, established genres, and celebrity cultural icons to experimentation in new game concepts. Almost all those we talked to indicate, in one way or another, that '[p]retty much everyone would rather be working on their own project, some original and creative game'.

67 Ruthless market logic also threatens the cooperative self-management of game development – a commonly cited attraction to work in digital play. As team sizes expand to facilitate speeded-up product release schedules, and as smaller studios are acquired by larger ones, "team management" takes on greater prominence in the development process. This is something game-capital tries to balance delicately, not least because excessive corporate-style management risks undermining the very aspects of the workplace that foster creativity. In fact, game workers' disenchantment with the effects of corporate rationalisation on creativity is often what causes developers to leave their employer – often to launch a start-up. This dialectic of exodus and entrepreneurialism serves game-capital well, frequently leading to an expanded "cluster" of developers in one city. Ironically, over the period during which we conducted our interviews, two of the developers who had waxed most eloquent to us about self-management, flattened hierarchies, and creative control sold their studios to multinational publishers for millions.

68 As independent studios pass into multinational hands we expect to see a deepening of the precarious status of game development labour. Game workers at all but the executive levels of the corporate hierarchy hint at a persistent sense of instability, with rationales ranging from fear of a studio buy-out, to increasingly powerful publishers that can simply dump a contract midway, to the often implacable ethos of "ownership" for oversights – all of which could result in abrupt job loss.

69 In terms of precarity, one segment of game labour that stands out is "bug catchers". Game testers, or Quality Assurance (QA) employees, are notorious for being the lowest paid and worst treated workers in the studio system: 'the bottom of the barrel'. Many testers make a minimum wage, and at larger developers, are in temporary, contract-based employment. 'We're treated no differently than the janitorial or the cafeteria staff, who make more money than us anyway. I'm not belittling other jobs but…', one tester explains. Their level of input varies greatly from studio to studio: some provide feedback on qualitative aspects of game design, whereas other testers' role is limited to checking for bugs, recording them in a database, and sending the results to the development team for fixing. Large studios are reportedly exploring the use of technologies to auto-track the incidence of likely bugs, which can become a sore point with testers, especially when used to monitor productivity: 'A lot of the QA testers are very angry, because they'll hear that their bug

count isn't as "high". But it isn't fair because certain areas of the game just don't have any bugs'. One tester says his department is filled with 'really angry people, because you work fourteen-hour days and we save each game probably millions of dollars. If it weren't for us, the games would probably suck'. Another describes the most stinging part of his job:

70 > When you're sitting in QA – making what I make – it's pretty frustrating because you'll get an e-mail of the quarterlies. When you see that number, you get pretty pissed. The profits are astronomical.

71 These astronomical profits take us squarely to how game companies, particularly the largest ones, are beginning to play game development labour on a transnational scale. Some executives we talked to indicate that the state of the North American game industry itself is more precarious than many care to admit. Referring to Vancouver's current status as a "hub" of game creation, one studio executive warns:

72 > In my opinion, it's always been just a matter of time before, say, you get a place like Prague that has the same set of circumstances with a highly skilled workforce – and their discrepancy between the currencies is even greater. The other one that kind of scares everybody is Bombay – this big high-tech scene in India. It's the same thing: you've got a lot of talented people and they can undercut us. You know, it's only a matter of time.

73 And that time inches closer as game studios begin to experiment in "outsourcing". At present, game development is firmly centered in global cities in the North. But as high-technology capitalism rips its course round the world in search of new markets and "cheap" labour, "talent" begins to incubate in the Global South, giving game-capital increased mobility. Today studios can be found from the former Soviet bloc to the Indian Subcontinent. A number of major game studios are subcontracting elements of a game's development outside of game-capital's geographic "core", furnishing an interim response to accelerated production deadlines and Northern wage levels. EA, for example, outsources development work to India (Overby, 2003); and EA, Nintendo, and Microsoft, among others, have outsourced game work to a Vietnamese firm (Gallaugher and Stoller, 2004). Based in Ho Chi Minh City, Glass Egg Digital Media offers Northern game firms extraordinary reductions in the cost of game labour: a Vietnamese programmer could make about $4000 a year, whereas 'comparable US talent would earn $70,000-$100,000′ (Gallaugher and Stoller, 2004: 12). Further savings stem from a Glass Egg scheme that pays new recruits a paltry fifty bucks a month for six-months "training" (Gallaugher and Stoller, 2004: 11). This globalisation of immaterial game labour reminds us that the North's current monopoly on high-tech jobs is not ironclad.

74 But the diffusion of game labour is presenting game corporations with not only discounted but also *free* labour.

75 Over the last decade or so, "authoring tools" have been increasingly packaged with computer games, helping to foster a vibrant participatory culture of game "modding", or modification. "Modders" deploy a range of techniques, from changing characters' appearances – "skins" – and weapons, to designing new scenarios, levels, or missions, up to radical departures that amount to building a whole new game – a "total conversion" – using various authoring tools (Sotamaa, 2003). Some recent computer games, such as Neverwinter Nights, are in fact more a demonstration of the capacities of the editing tool-kit that comes with the game than it is a standalone experience. But when young "hardcore" gamers spend their evenings modding a level of a computer game, or sculpting an avatar for a multiplayer virtual world – or, for that matter, contributing to their favourite developer's online "community" forum – the boundaries between "play" and "content provision" subtly dissolve. They join the legion of 'free labor' that Tiziana Terranova (2000: 50) observes is a major source of value creation in the networked economy, as capital learns to digitally tap, outside all boundaries of work-time or -place, a diffuse "collective intelligence". This space-defying process of exploitation extends deeper yet in functioning as informal training, preparing the game development workforce of the future.

76 Mod culture is an increasingly integral part of game industry practices. Indeed, the first virtual game, Space War, was an avant la lettre "mod" of military simulation that created the basis for the industry; commercial games spread the interest and know-how that enabled a gamer multitude to alter its products; and now game companies reabsorb these DIY experiments as a new source of IP and surplus-value. Now development companies often "buy back" successful mods, and hire the teams that created them en masse. In 2003, Epic Games and Digital Extremes set up a competition

with a one million dollar prize for mods of their shooter, Unreal, and also offered video training modules in using their authoring tools (Todd, 2003). Modding thus perfectly displays the spiral of transgressive innovation and corporate recuperation that fuels digitally networked corporations in the age of Empire. What's more, best-selling games like Counter-Strike have been developed by remote modding teams, establishing a profitable precedent of a "virtual studio" model of game development. In that aspect, and in the modes of distributed content provision evidenced by the mod community, free networked labour in the gaming sector is perhaps prototypical of work in what has been dubbed the coming 'firms without factories' (Virtanen, 2004: 223).

77 In the next section we look at how the dark side of game work and the rise of participatory gamer culture set the stage for a counter-mobilisation of immaterial game labour.

Lines of Fight and Flight: Counter-Mobilising Immaterial Game Labour

78 On 10 November 2004, a letter under the title 'EA: The Human Story' and signed anonymously by 'EA Spouse' (2004a) was posted to a blog. Written by a self-described 'disgruntled spouse', 'EA: The Human Story' told of 'eighty-five hour' work weeks at EA; of the normalisation of hyper-extended 'crunch' time; of the absence of compensation in the form of either 'overtime' pay or 'compensation time'; of the 'put up or shut up and leave human resources policy' of EA; of the allegedly 'illegal' failure of EA to pay overtime; and of the rapid concentration of ownership in the game development industry.

79 Igniting a firestorm of controversy, the communiqué swiftly reached game workers, with the letter circulating widely via e-mail and linked from countless game-related websites. The press was quick to cover it, too, announcing 'Discord on Labor Issues' at EA (Wingfield and Guth, 2004). The reverberations of 'EA: The Human Story' are only beginning to register as we write this article. At minimum, as one industry commentator put it, 'the general perception of EA's overall sliminess has increased exponentially' (Sakey, 2004). More substantially, the game industry's "work as play" mantra is suffering a devastating blow of truth, and game workers have started to rethink their conditions of labour.

80 Direct challenges to systemic unpaid labour in development studios had been brewing for some months before the publication of EA Spouse's missive. In July 2004, for example, it was reported that a developer at a Vivendi studio in Los Angeles filed a lawsuit alleging managers regularly 'falsified timesheets to avoid paying overtime' (Jenkins, 2004). More recently, a class-action suit was filed by a group of current and former EA employees in the name of obtaining compensation for 'unpaid overtime' (cited in Feldman and Thorsen, 2004). A key contention of these challengers is that EA illegally categorises many of its developers as "professionals", a designation permitted by Californian law that exempts employers from having to pay overtime. The play slaves are resisting.

81 'EA: The Human Story' echoes grievances reported months earlier in a study published by the International Game Developers Association (not a union but a professional association), Quality of Life in the Game Industry (IGDA, 2004a). It presents a well-researched, impassioned critical view of the 'horrible conditions of work within much of the industry' (IGDA, 2004b). While IGDA declares a preference for a conciliatory rather than antagonistic approach to transforming game work, the terms in which their findings are cast suggest otherwise. Potentially. The central thread in the IGDA report, as its title makes obvious, are matters of life and the cost exacted on it by the game industry's severe work regimen. EA Spouse (2004a) sets up a similar target, telling us that this game industry behemoth presses developers 'to individual physical health limits'. And EA Spouse's remark in the letter that her/his 'happy supportive smile is running out' lays bare the "labour of reproduction" that is performed outside of the game "workplace" but nonetheless contributes to the sustaining of game labour (see Dalla Costa and James, 1972).

82 It is interesting (but by this point unsurprising) to note that when it comes round to proposing possible solutions a recurring theme in the IGDA report and discussion around it and the EA Spouse letter is the need to slow the production process and reduce the amount of time individual game workers surrender to work. One subsection of IGDA's study bears the title 'Everyone Works Too Much' and notes the 'Take Back Your Time Day' initiative, putting the particular situation of game labour into the general context of the "work society" (IGDA, 2004a: 10). This broached, we are tempted to sketch one possibility: just as the intermittents in France's movie business are helping to further discussion of a 'continuous income' in light of 'discontinuous work' (Lazzarato,

2003; see also Global Project, 2004), perhaps the developers in North America's game business might help to further a discussion of a reduction of the time and pace of work in light of a normalisation of excessive hours. [3] In any case, this outbreak of discontent over "quality of life" in development work is providing game-capital with instructions on how to manage biopower more effectively. IGDA's gambit, for example, is that studios that reduce their hours will get 'more productive and creative workers' (IGDA, 2004b). And only because it is being forced to, EA is promising workplace 'reform' (Frauenheim, 2004). We also suspect game-capital will react to the threat of decreased access to unpaid labour by increased outsourcing to studios that operate in regions that are more amenable to the industry's current labour practices.

83 Although there is no shortage of virtual games, like Red Faction, whose storyline is based on evil corporations who ruthlessly exploit their employees, we are not aware of "real life" collective labour organisation in the game development industry. We have heard of game workers participating in strikes in France. Generally, though, game studios in North America are very far, culturally and politically, and often geographically, from the traditions of trade unionism. Much of the "work as play" ethos would seem to obstruct trade unionism's penetration of the digital play sector; the above-described discontent might change that assumption, though.[4] Indeed, unionisation might provide game workers with a form of self-management that extends to greater control over game content, thereby responding to the desire – expressed so often by game workers – to work on 'more creative projects' (see Ross, 2000: 18-19).

84 The video game industry is, however, haunted by clandestine subversions – dissident activity that counter-mobilises the immaterial labour set in motion by game-capital. In the remaining space of this article we scan four lines of counter-mobilisation involving the immaterial subjectivities that make and play virtual games: digital piracy, autonomous production, tactical games, and simulated counter-planning. These resonate in many respects with the counter-globalisation movement, for example, in an opposition to the commodification of life forms, in a commitment to experiment in alternative modes of human cooperation, and in the elaboration of non-commercial applications of new media.

85 The counter-mobilisation of immaterial labour that currently causes industry managers most anxiety is the growing network of game pirates. Their software is encrypted to prevent illicit copying, but, says one games executive, '[p]eople always work around them. They'll find the cracks'. 'We're moving, they're moving – it's a perpetual thing'. If comparative stealth will decide the outcome, statistics reveal the score: games have a piracy rate of nearly five times that of the music industry (Holloway, 2003). The transnational "warez" scene that helps supply a networked economy of free play is well known. Not as widely acknowledged is that pirated product often springs from within development studios themselves. "Zero-hour" releases – an issue recently highlighted by hacks of high profile games such as Doom 3 – are frequently the results of insider knowledge. If the industry benefits from the ethos of work as fun, it meets its nemesis on the flipside of this formula, where property becomes a game. In all its contradictory multiplicity, game piracy shows that in mobilising immaterial labour Empire sets in motion potentialities it cannot contain.

86 Other forms of rebellion go beyond illicit reproduction to forms of autonomous production. As we already mentioned, game culture features a vibrant practice of gamer-made mods of existing games. But some forms of modding pose serious problems for the Game Factory. More troublesome for game-capital, though, are the intellectual property implications. Modders often import content for an altered game from some other pop culture artefact – either from another game, perhaps owned by a company other than the one that made the original game, or from another media, such as a film. In doing this, these modders are constructing a "commons" of images, characters, and themes, in violation of the corporate enclosures that divide them up into carefully policed proprietary domains.

87 The conflicts arising from this practice have led to the coining in gaming circles of a new term – "foxing" – designating the prosecution of copyright-infringing modders. This term arises from the first known incident of such a prosecution, when 20th Century Fox Corporation ordered the shut down of the Quake "Aliens vs. Predator" mod, based on characters from those two films. Since then, Fox has sustained its aggressive stance toward the digital re-mixing of proprietary imagery. This mammoth media corporation has been known to contact individual mod authors and

demand that production cease, that the website that hosts the mod be removed, that all files from the mod be placed in Fox's ownership, with all other copies destroyed, and that the real-life names and addresses of all mod team members be sent to Fox (Kahless, 2001). Other "foxed" mods include a Quake II add-on closed down by Id Software because it used levels and graphics from several of the developer's previous titles (Smith, 2001).

88 Modding, like piracy, carries both potentialities and limitations. Usurping the corporate control over the direction of game development, modders are intriguing figures of autonomous production. In this, modding is exemplary of Exodus. This possibility may be what the dissident game-making authors of the 'Scratchware Manifesto' (2002) had in mind when, in the wake of the battle of Seattle, they wrote: 'We need to get out from under the thumb of the corporations, either by tearing them down or making them obsolete'. But although modders often violate the formal, legal rules of the media industry (and get in trouble for it), the content of their adaptations is usually far from subversive. Most modding is conservative, undertaken by technically accomplished fans who love a particular game and want more of it – more weapons or more monstrous opponents for shooters, different campaigns and battles for war games. In other words, modifications don't necessarily modify much, often only amplifying the spirit of the original game. Recently, however, the capacities for autonomous production represented by modding have taken a more radical inflection, with game savvy artists and activists keen to challenge game culture's militarised masculinity and the way that that sad assemblage supports the wider ideologies of Empire.

89 Learning from examples provided by earlier generations of media activists, a cacophony of rebellious gamers and game-makers are re-appropriating the general intellect of games, re-organising it autonomously, and re-directing it toward a critique of Empire (see Frasca, 2004). The wide diffusion of game-making know-how, and the availability of easy to use authoring devices, such as Flash, has led to a spate of alternative games that contribute to the circulation and provocation of struggles associated with feminist, counter-globalisation, and anti-war movements. These counter-mobilisations of immaterial game labour, though without guarantees, expose a playful multitude beginning to sculpt, in and through the digital fabric, 'institutions of knowledge, of creation, of care, of invention and of education that are autonomous from capital' (Berardi, 2002).

90 A fragmentary list of radical experiments in tactical, activist-oriented game creation includes: the various anti-war interventions, such as Velvet Strike and OUT, curated on OpenSorcery; game "hacks" by radical media art collectives like Critical Art Ensemble in the US; Escape from Woomera, involving Australia's selectparks, a game development project bringing together refugee activists, new media artists, media theorists, and game designers to create a game that exposes the operation of power in refugee detention camps; Italian collective, Molleindustria, whose small but hilariously effective web-based games deal sardonically with post-Fordist precarious employees; the media art group, Kingdom of Piracy, which is dedicated to the creation of an online 'Games Commons'; 'Developers in Exile', an actual-virtual project in building non-commercial spaces of game-making and playing; and Eastwood: Real Time Strategy Group, a game art group that sees in game modeling technology an ideal tool to map the cartography and class composition of the information society. This last project, ironically named 'Civilization IV: Age of Empire', includes on its map the 'military-entertainment complex', 'immaterial labor', the 'net economy', 'surveillance mechanisms', 'governmentality', and so forth. This snapshot of multitudinous gaming activity shows us that radical theory, game development, and the wide distribution of immaterial game labour are beginning to feed into and spiral round one another, creating new oppositional turbulences, and combining with other social movements that are striving to '[create] the outside itself, an embodied critical gap with the prevailing norms' (Holmes, 2004).

91 But is it possible to envisage more radical horizons for interactive games where they might make a contribution to an "escape option" that would build another, more just and equitable, society? Perhaps. After all, interactive games are a ludic exploration of the possibilities of collective human development, up to and including fundamental socio-economic, environmental, and biological alterations. As military training camps and management schools constantly demonstrate, networked simulation is not just a matter of entertainment. But how might capacities for virtual rehearsal and planning be linked to radical social agendas? Can we conceive a world where, for

example, the capacities honed by generations of young people informally trained in game simulations have some place in non-hierarchical, distributed planning of economic and environmental possibilities? Such questions are now being opened. 'agoraXchange', a collaborative open-source game development and art project, has the goal of creating a massively multiplayer online game simulating a future where there has been a radical change in political institutions. And researchers at University of British Columbia in Canada are, alongside ecologists and urban planners, developing prototypes of sim-style game interfaces and technologies as part of an attempt to elicit decentralised, localised participation in "real world" eco-social planning.

92 The interactive entertainment industry, we should remember, emerged only four decades ago from the playful hacks of researchers seeking light-hearted respite from military tasks. In today's dissident games and warez networks, these autonomous capacities of immaterial labour break loose again. The experiments of this playful multitude, as modest and preliminary as some may be, flow into the wider currents of tactical media, hacktivism, free and open-source software, and distributed computing generating tumults throughout the circuits of Empire. The ideology of work as fun has given game-capital an effective but increasingly brittle formula for containing and channeling the biopolitical powers of its immaterial workforce; but there may yet prove to be more "play" in the system than game-capital ever imagined.

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Notes

[1] All unreferenced quotations are from interviews we conducted with game industry workers; because they deal with volatile issues in a tight-knit business with little job security, we have preserved the anonymity of informants.

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[2] This portrait matches the audience of respondents to a survey published in 2004 by the International Game Developers Association: 92.9% men; 18.4% over 35; and about 80% without children (IGDA, 2004a: 15).

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[3] Much like the intermittents, the IGDA recommends that studios that do go contract to contract ought to "pay people during down time" (IGDA, 2004a: 46).

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[4] "EA Spouse" (2004b) is setting up an 'open-source' 'non-corporate sponsored watchdog organization specifically devoted to monitoring quality of life in the game industry'.

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Sites

'agoraXchange', https://agoraxchange.net/

Critical Art Ensemble, https://www.critical-art.net/

'Developers in Exile', https://zerogame.tii.se/projects_devexile.htm

Eastwood: Real Time Strategy Group, https://www.eastwood-group.net

Escape from Woomera, https://www.escapefromwoomera.org

Kingdom of Piracy, https://residence.aec.at/kop/

Molleindustria, https://www.molleindustria.it/

OpenSorcery, https://www.opensorcery.net/

References

Berardi, Franco (Bifo). 'Book Review of Geert Lovink's Dark Fiber ', trans. Arianna Bove (August, 2002), https://www.generation-online.org/t/Bifosreview.htm.

DFC Intelligence. 'DFC Intelligence Releases New Market Forecasts For Video Game Industry', 22 September (2004), https://www.dfcint.com/news/prsep222004.html.

Dalla Costa, Mariarosa and James, Selma. The Power of Women and the Subversion of Community (Bristol: Falling Wall Press, 1975).

Delaney, Kevin J. 'Electronic Arts Goes to School on Videogames', Wall Street Journal, 22 March (2004), B7.

Dyer-Witheford, Nick. 'The Work in Digital Play: Video Gaming's Transnational and Gendered Division of Labor', Journal of International Communication 6.1 (1999): 69-93.

_____. 'Nintendo Capitalism: Enclosures and Insurgencies, Virtual and Terrestrial', Canadian Journal of Development Studies 22 (2001): 965-997.

EA Spouse. 'EA: The Human Story', journal entry posted 10 November (2004a), https://www.livejournal.com/users/ea_spouse/274.html.

_____. Journal entry posted 15 December (2004b), https://www.livejournal.com/users/ea_spouse.

ESA (Entertainment Software Association). 'Top Ten Industry Facts' (Washington, DC: Entertainment Software Association, 2004), https://www.theesa.com/pressroom.html.

Feldman, Curt. 'VU Games Slapped with Lawsuit', GameSpot, 30 June (2004), https://www.gamespot.com/news/2004/06/30/news_6101709.html.

Feldman, Curt, and Thorsen, Tor. 'Employees Readying Class-action Lawsuit Against EA', GameSpot, 11 November (2004), https://www.gamespot.com/news/2004/11/11/news_6112998.html.

Frasca, Gonzalo. 'Videogames of the Oppressed: Critical Thinking, Education, Tolerance, and Other Trivial Issues', in Noah Wardrip-Fruin and Pat Harrigan (eds) First Person: New Media as Story, Performance, and Game (Cambridge, Mass.: MIT Press, 2004), 85-94.

Frauenheim, Ed. 'Electronic Arts Promises Workplace Change', CNET News.com, 3 December (2004), https://news.com.com/2102-1022_3-5476714.html.

Gallaugher, John and Stoller, Greg. 'Software Outsourcing in Vietnam: A Case Study of a Locally Operating Pioneer', EJISDC 17.1 (2004): 1-18.

Global Project / Coordination des Intermittents de Précaires d'Ile de France. 'Spectacle Inside the State and Out: Social Rights and the Appropriation of Public Spaces: The Battles of the French Intermittents', trans. Aileen Derieg, republicart (March, 2004), https://www.republicart.net/disc/precariat/intermittents01_en.htm.

Hardt, Michael and Negri, Antonio. Empire (Cambridge, Mass: Harvard University Press, 2000).

_____. Multitude: War and Democracy in the Age of Empire (New York: Penguin, 2004).

Holloway, Andy. 'Licence to Plunder: Pirates Rob Game Developers of US$3 Billion a Year', Canadian Business 76.22 (November, 2003): 10-23

Holmes, Brian and Gabri, Rene. 'Interview with Brian Holmes: The Flexible Personality', 2 August (2004), https://www.16beavergroup.org/journalisms/archives/001168.php#more.

IGDA (International Game Developers Association). Quality of Life in the Game Industry: Challenges and Best Practices (International Game Developers Association, 2004a), https://www.igda.org.

_____. 'Quality of Life Issues are Holding Back the Game Industry: Open Letter from IGDA Board of Directors', 16 November (2004b), https://www.igda.org.

Jenkins, David. 'Ubisoft Wins Canadian Battle with EA', Gamasutra, 13 October (2003), https://www.gamasutra.com/php-bin/news_index.php?story=2190.

_____. 'Programmer Sues Vivendi over Long Hours', Gamasutra, 1 July (2004), https://gamasutra.com/php-bin/news_index_plain.php?story=3971.

Kahless. 'The Foxing of Mods', 3DActionPlanet, 28 April (2001), https://www.3dactionplanet.com/features/editorials/foxedmods/.

Kent, Steven L. The Ultimate History of Video Games (New York: Prima Publishing, 2001).

Kline, Stephen; Dyer-Witheford, Nick; and de Peuter, Greig. Digital Play: The Interaction of Technology, Culture, and Marketing (Montréal: McGill-Queens, 2003).

Lazzarato, Maurizio. 'Immaterial Labour', trans. Paul Colilli and Ed Emory, in Paolo Virno and Michael Hardt (eds) Radical Thought in Italy Today (Minneapolis: University of Minnesota Press, 1996), 133-147.

_____. Presentation at 'Digital Work Seminar', trans. Brian Holmes, Media Design Research, Piet Zwart Institute; V2_Organization, Institute for the Unstable Media, 11 October (2003), https://www.pzwart.wdka.hro.nl/mdr/Seminars2/dwork/transdw/.

Lazzarato, Maurizio and Negri, Antonio. 'Travail immaterial and subjectivité', Futur Antérieur 6 (1991): 86-89.

Lugo, Jairo Sampson and Lossada, Merlyn. 'Latin America's New Cultural Industries still Play Old Games', Game Studies 2.2 (2002), https://www.gamestudies.org/0202/lugo/.

McRobbie, Angela. 'From Holloway to Hollywood: Happiness at Work in the New Cultural Economy?', in Paul du Gay and Michael Pryke (eds) Cultural Economy (London: Sage, 2002), 197-114.

_____. 'Creative London-Creative Berlin: Notes on Making a Living in the New Cultural Economy', Atelier Europa (2004) https://www.ateliereuropa.com/2.3_essay.php.

Mitterauer, Michael. A History of Youth (Oxford: Blackwell, 1993).

Overby, Stephanie. 'Staff Alert', CIO, 11 June (2003), https://www.cio.com.au/index.php/id;1166484313;fp;512;fpid;145321262.

Pausch, Randy. 'An Academic's Field Guide to Electronic Arts: Observations based on a Residency in the Spring Semester of 2004', (2004), https://www.andrew.cmu.edu/user/tshah/PauschAcademicsFieldGuideToEA.pdf.

Ross, Andrew. 'The Mental Labor Problem', Social Text 18.2 (2000): 1-31.

_____. No-Collar: The Humane Workplace and Its Hidden Costs (New York: Basic Books, 2003).

Rossiter, Ned. 'Report: Creative Labour and the Role of Intellectual Property', Fibreculture Journal 1 (2003), https://journal.fibreculture.org/issue1/issue1_rossiter.html.

Sakey, Matthew. 'Put Up or Shut Up', International Game Developers Association, December (2004), https://www.idga.org/columns/clash/clash_Dec04.php.

'Scratchware Manifesto', (2002), https://www.the-underdogs.org/scratch.php.

Smith, Andrew. 'Realms Fences in Foxing Fans', The Register, 12 February (2001), https://www.theregister.co.uk/2001/02/12/3d_realms_fences_in_foxing.

Sotamaa, Olli. 'Computer Game Modding, Intermediality and Participatory Culture' (2003), https://www.imv.ac.dk/eng/academic/pdf_files/Sotamaa.pdf.

Taylor, Chris. 'Best Companies to Work for in BC', B.C. Business Magazine 27.11 (1999): 31-51.

Terranova, Tiziana. 'Free Labor: Producing Culture for the Digital Economy', Social Text 18.2. (2000): 33-59.

Todd, Brett. 'Million Dollar Mods', Computer Games, 24 September (2003), 24.

Virno, Paolo. A Grammar of the Multitude: For an Analysis of Contemporary Forms of Life, trans. Isabella Bertoletti, James Cascaito, and Andrea Casson (New York: Semiotext[e], 2004).

Virtanen, Akseli. ‘General Economy: The Entrance of the Multitude into Production’, ephemera: theory & politics in organization 4.3 (2004): 209-232, https://www.ephemeraweb.org/journal/4-3/4-3virtanen.pdf.

Wingfield, Nick and Guth, Robert A. ‘Videogame Firm Electronic Arts Faces Discord on Labor Issues’, Wall Street Journal, 19 November (2004), A5.

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