Mapping the Canadian Video and Computer Game Industry

Nick Dyer-Witheford

ncdyerwi@uwo.ca

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Introduction

Invented in the 1970s as the whimsical creation of bored Pentagon researchers, video and computer games have over thirty years exploded into the fastest growing of advanced capitalism's cultural industries. Global revenues soared to a record US$30 billion in 2002 (Snider, 2003), exceeding Hollywood's box-office receipts. *Lara Croft*, *Pokemon*, *Counterstrike, Halo* and *Everquest* are icons of popular entertainment in the US, Europe, Japan, and, increasingly, around the planet. This paper—a preliminary report on a three-year SSHRC funded study—describes the *Canadian* digital play industry, some controversies that attend it and some opportunities for constructive policy intervention. First, however, a quick overview of how the industry works.

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How Play Works

Video games are played on a dedicated "console," like Sony's PlayStation 2 or Microsoft's Xbox, connected to a television, or on a portable "hand-held" device, like Nintendo's Game Boy. Computer games are played on a personal computer (PC). There is also a burgeoning field of wireless and cell phone games. Irrespective of platform, digital game production has four core activities: development, publishing, distribution and licensing. ***Development***--the design of game software-- is the industry's wellspring. No longer the domain of lone-wolf developers, making a commercial game is today a lengthy, costly, and cooperative venture; lasts twelve months to three years, costs $2 to 6 million, and requires 20 to 100 people. On the video game side, the big console companies--Sony, Microsoft, and Nintendo--operate in-house studios, but also contract "independent" studios. On the computer side the open architecture of the PC allows for a proliferation of small developers.

The site for strategic control of the industry is, however**,** ***publishing***. Think of the relation of publishers to developers by analogy with the music business: the publisher is the label, the developer the band. Publishers finance, manufacture, and promote a game. Many operate in-house development studios. They exert tremendous influence over what games are made. Publishers' advances typically pay developers wages. In ***distribution***, publishers' brand name and marketing determine to what games stores will allot scarce shelf space. Publishers also manage ***licensing***, increasingly important as games like *Lara Croft*, are made film and characters and storylines from films (*Enter the Matrix)*, books (*Harry Potter*), television (*The Simpsons Road Rage*), and sports teams (*NFL*), enter games.

Independent developers are significantly disadvantaged in relation to publishers, to whom all but the most famous surrender creative control and intellectual property rights. "Indentured servitude" is how one studio representative described the relationship to us. In reply, publishers point out that they face the "90:10" dilemma of a hit driven business 10% of the games make 90% of the money, and they must contract developers knowing most games sink without a trace. Escalating development costs, license acquisition, and marketing budgets have led to a consolidation of ownership. A handful of multinational super-publishers--EA, Sony, Nintendo, Activision, Vivendi, THQ, and Take-Two Interactive--control the levers of the majority of the world games supply (Gaudioso, 2003). Still, "[n]o one company has the resources to monopolize software creation" ((Hayes, Dinsey, & Parker 1995, p. 43)). The industry still has considerable diversity in the scale and size of corporate players. The possibility of a surprise hit emerging from an obscure, impecunious developer persists. But in games, as in other cultural sectors, "[a]lthough the number of 'independent' production companies grow, these absorb high product risks and labour costs for the giants, which maintain their control over the critical areas of finance and distribution" (Mosco, 1996, p. 109).

Canada Games

The top game-producing nations are the US, Japan, Britain, Germany, and France--followed by Canada (DTI, 2002, p. 18) -- not a world centre, but a significant minor node About 100 companies in Canada develop, publish, or distribute digital games. There are about thirty in both Quebec and British Columbia, concentrated in Canada's two metropolitan "hubs" of game production, Montreal and Vancouver. Another thirty or so are scattered around Toronto and southern Ontario. The remainder, mostly small studios, is dispersed in the Prairie and Atlantic provinces. Game production also foster "associated industries:" animation software, authoring tools, chip manufacture; graphic art services; adver-gaming. But if we focus on developers and publishers, we can identify four key categories:

1) A *mass of financially insecure and relatively unknown small and micro-enterprise developers.* Their names--Battle Goat Studios (Ancaster), Firetoad Software (Calgary), Xfunc (Toronto), Furious Entertainment (Burnaby), Golem Labs (Sherbrooke), Photon Soup (Vancouver)--express something of the unique ambience of gaming culture. Many such ventures are fated to disappear into the churn-and-burn of game development.

2) There are a handful of successful mid-size Canadian-owned developers, some with international renown. Edmonton's BioWare is one the world's best developers of "role playing fantasy games," with award-winning titles like *Neverwinter Nights* (2001) Vancouver's Relic Entertainment created *Homeworld* (1999), a PC title viewed as a benchmark in game aesthetics. *Digital Extremes*, from London Ontario, developed *Unreal*, a celebrated first person shooter. Other Canadian developers such as Radical in Vancouver, Artech in Ottawa, have not created any single hit game, but have extensive portfolios of commercially successful license-based titles

3) *There are few Canadian-owned publishers*. Hip Interactive and DreamCatcher of Toronto, and Montreal's Strategy First, of Toronto, although correctly regarded as Canadian breakthroughs, these are not remotely in the league of publishers based in the US, Japan, or France. The Canadian games industry is centered primarily on game development.

4) *Foreign-owned multinationals, publishers in particular, have a powerful presence in and impact of the Canadian games industry.* Proximity to the US, relative weakness of the currency, highly skilled workforce, and tax incentives are factors that attract American and European publishers to invest in Canada (Snow, 2002). These include French-owned UbiSoft and Microids in Montreal, Swedish-owned Digital Illusions in London, and US-owned Rockstar Vancouver, among others (Alliance NumeriQC, 2003, v). The salient example is EA, which operates two studios in the Vancouver area and recently launched a third in Montreal. Employing 4,400 people in 15 studios world wide, and releasing about 60 titles annually, the parent company "is worth more than all the independent game publishers combined" (Takahashi, 2003).

The role of foreign-owned multinational publishers is ambiguous. In Montreal and Vancouver they were decisive in the formation of "clusters" of game production, galvanizing what became a critical mass of game-oriented know-how, spawned numerous new developers, and stimulated associated industries. On the other hand, in recent years, foreign-owned multinational games companies have moved to acquire successful small and mid-size Canadian developers. Some developers we talked to expressed concern that an industry of multinationals subsidiaries is precarious in the light of the wave of software from North America to E. Europe and Asia.

The annual revenues of companies, foreign and domestic, that comprise the Canadian located computer and video games industry total nearly $2 billion.[3] More than half of this figure, however, is attributable to one company--EA. About 15 other companies foreign- and Canadian owned, account for nearly all the rest. $100 million or less is split unevenly amongst some 80 or so companies: many make little or nor revenue. For comparison, revenues for other Canadian industries, also including foreign firms active in Canada, are, for film and television production, about $5.1 billion, for book publishing about $2.4 in 1999.

Mounties, Grizzlies and Rap

Is there a distinctively Canadian style of game development or play? This is a topic that occasionally surfaces in the game press and bulletin boards, usually in the context or war games, framed as accusations that Canadians are "wimps" or "wusses." Here, for example, is an extract from an online review of *Battlefield 1942*:

> . . .what the game does have going for it is a hell of a lot of action. You know, the kind that riles up that ever-present lurking bloodlust inherent in nearly every male on the face of the planet -- that same kind that elicits devilish smiles and wicked applause when it's quenched by obliterating an incoming Zero with a carefully placed tank round. It's that kind of action that fuels war and pleases men. We're savages, after all, and if we didn't fight, we might as well be Canadians... Lousy peace loving, cleanly, well mannered people.

For better or worse, I have to report there is no evidence of this. Asked if made in Canada games had any distinctive traits, industry executives typically replied, "borders don't matter" since this is a "global business" or, more precisely, that Canada is a subset of the US market. Canadian developers, asked the same question, were ruefully non-plussed; a spaceship in a sci-fiction game was decorated in the colors of the local hockey team; one the dozen or mercenary warriors in a shooter is described as French-Canadian and grunts his few lines in a Quebecois accent; one developer had a prototyped a game involving Mounties and grizzly bears, but it "didn't go anywhere."

To see if Canadian owned companies showed a preference for certain type of games we analyzed the genre of games produced in Anglo-Canada from over 10 years from 1993-2003: 30% were action or adventure games, 27% sports or racing, 23% strategy and role playing games, 9% were shooters, 11% others. That's broadly similar to the patterns in the US. We even did a pilot study in content analysis, comparing games of similar genres produced in US/Canada for levels of graphic violence, number of female characters, and representations of ethnic variety: as far as we can tell, based on an admittedly limited sample, there is no "Canadian factor."

It is not hard to figure out why this is if one looks at the reality of the world market. Canadians like to play games: Canadian $1 billion sales of games software and hardware is only slightly behind the sales of recorded music in Canada, estimated at $1.2 billion for 2000 (Canadian Heritage (2003p. 33). Canada possesses one of the world's strongest technical infrastructures for gaming: 40% of all households own a video game console (ACNielsen Canada, 2003); 60% own a personal computer (Statistics Canada, 2003, p. 95); and broadband penetration, so crucial to the enjoyment of on-line gaming, is second only to Korea (OECD, 2001, pp. 8, 24). Canada accounts about 3% of the total global games consumer market: that's high proportionate to population, but it still a small fraction of the absolute total.

So although Canadians like to play digital games, the games they play are overwhelmingly *non-Canadian* in origin. The largest single point of origin is the US, followed by Europe and then Japan (C.f. DTI, 2002). The best selling games and genres in Canada over the past five years are the same titles and genres that topped the US and European charts: Nintendo's Pokemon and Mario franchises, EA's *The Sims*, Sony's *Gran Turismo*, and Rockstar's *Grand Theft Auto 3: Vice City*-- developed and published by non-Canadian multinationals. Canadian developers estimate that domestic sales account for only 5% of their market (Muzyka & Zeschuk 2002).

The games Canadians buy and the games Canadians sell are, then, different: the former imports, the latter exports. It is probably only such transnationalization that enables games development sector to thrive at all in Canada But the absence of strong *domestic* sales powerfully constrains Canadian developers to the dynamics of the world market. The reality of Canadian game development is better reflected by the fact that the major tile under development at the countries largest studio—Electronic Arts Canada is a rap music/crime title saga, *Def Jam: The Fight for New York*.

Global Controversies: Violence, Gender and Clones

Conversely, if Canada has little local identity in the game content, it is fully participant in the three problems that plague the game industry globally: issues of violence, gender, and what might be termed "cloning."

. First, the issue of so-called violent games. This has troubled the industry from its beginnings. Children's advocacy groups claim game content shows a repetitious emphasis on violence (Glaubke et al., 2002). Other critics assert that first-person games are "teaching our kids to kill" (Grossman & DeGaetano, 1999). Industry apologists deny connection between real and virtual violence, point their fingers at other causes, minimize the number of ultra-violent games in overall sales, or plead that such games provide a surrogate for—rather than a stimulus to—actual aggression (IDSA, 2001). In a preemptive move against state regulation, US-based games companies formed the Entertainment Software Rating Board (ESRB) to manage a "self-regulatory" rating system indicating age-appropriateness on games (ESRB, 2004). The adoption of this code did not put the issues to rest, with critics charging it is ignored not only by retailers, but also by the marketing strategies of game publishers.

In 2000, *Soldier of Fortune*--an ultra-violent "first-person shooter" game, provoked advocacy groups in British Columbia. The Province's NDP government proposed the 2001 Video Game Act, which would have bought games under the purview of Provinces' film censors. (Campbell, 2002; Video Game Act, 2001). The BC Liberals later abandoned the Act, ("B.C. government " 2001). Industry executives remain concerned about government regulation, particularly in the wake of multi-million dollar lawsuits against games companies over real world "copycat" crimes of those depicted *Grand Theft Auto 3: Vice City* (Mansfield, 2003).

A second recurrent criticism of the games industry involves its marginalization of women, both in production work and representation within games. Merely 10-15% of Canada's games-workforce is female. Very few women have positions at the executive level. While there are some women in art and in producer roles, they are disproportionately represented in reception, marketing, and human resources. When we raised the topic, men we interviewed typically expressed a desire for greater balance, but admitted great obstacles set up by the "feedback loop" between the gender of those who primarily play games and those who go on to make them. Others offered a clearer window into the sexism of the digital play industry, explaining, for example, that "girls" often don't have "the right ideas" when it comes to games but that it "looks good" for a developer to employ "some girls." Women we interviewed were franker, calling the gender imbalance in their workplaces "horrible," and described the industry as an "old boys club." In the US, there has been some experimenting in "entrepreneurial feminism" in the games sector (Cassell & Jenkins, 1998, p. 16). Canada hosts one such experiment in Women Wise, a small Toronto-based company whose creations include e-novels and adventure games that are produced with female audiences in mind (Hurre, 2002); our interview with its owner highlighted the extreme difficulty of this effort.

The third critique of gaming is that of "cloning." While critiques of sexism and violence are often made from outside the industry, this one comes from insiders: in the manifestoes of dissident programmers, and in some of the gaming press. It claims that the gaming industry is failing in originality and creativity: tending towards franchises, knock offs, sequels and spin-offs, rather than original experiment. The culprits are risk-averse super-publishers, whose bottom line orientation tends to the reliance on sure-fire franchises. For example, the enormous success of Electronic Arts Canada rests on its series of sports games, such as FIFA *Soccer*, which is simply updated annually with a guaranteed market, but a similar process can be seen in many other companies, Canadian or foreign owned. Many developers, or would be developers resent the this game factory ethos. Typically, they express their frustration in the ambition to start their own company and 'make something original,' but, as we've shown, the economic odds are stacked against them.

So What, If Anything, Is To Be Done?

If one asks business leaders in the game world "what is to be done" about these issues, the answer is, by and large: laissez-faire, let the market work its magic. They claim the violence issue is spurious, or exaggerated, and are indignant at a double standard applied to games in comparison with film and television. Women will become included and games diversified through the continuing growth of the industry. The vitality of its creation affirmed by its market success. And anyway, it is often added in a Canadian context, these are global problems for the industry, problems on which local developers can have little influence.

In the course of my research I have come to like many of the people who make games, to admire the passion they bring to what is often a labour of love, and to respect the entrepreneurial nerve it takes to succeed in a risky and creative business. But I'm not convinced by these arguments that all is well in the game-making world.

The issues of sexism, violence and formulaic game-making theoretically distinct, are in practice linked and deeply embedded in the history of gaming culture. Games originated in the male culture of the US military-industrial complex, with an early orientation towards a young-male audience. It was within this testosterone niche that standard genres: sports, strategy, fighting games, role-playing emerged. Many, though not all, relied on combat and violence narratives, and a default male subject positions. The risk-aversion of publishers, (particularly their marketing departments) has made departures from these tried and true formulae, other than up-aging them, rare.

It *is* unfair to characterize virtual games by first person shooters. Rather, games culture is a field polarized between, on the one hand, action/adventure/ strategies (most of which revolve around combat), and male dominated sports (football to car-racing). There are minor sub-option in home decoration and city building (*The Sims*), and a nasty fringe of sadistically violent games. Elsewhere I have described this as a culture of "militarized masculinity" or "games of empire" (kline, Dyer-Witheford, and De Peuter; De Peuter and Dyer-Witheford).There are exceptions to this overall pattern, and some incipient countertrends—but they remain just that: exceptional and incipient. Even leaving aside the vexed issue of effects, psychological and political, the investment in technically sophisticated but formulaic genres represents wastes cultural opportunity. Where are the great games of abstraction rivalling three-dimensional chess, of ecological imagination, of identification with other species, of becoming-whale, of radical economic experimentation?

There *is* an emergent autonomous games culture, arising amongst warez networks, the modding community and the digital art world. This is where the most active, though still marginal, critique of the games culture is being made. I don't speak about because several of you are already active in these realms. I want rather to raise the possibility of intervention at the level cultural policy: what follows is "advice for princes."

The Canadian games industry receives significant government support. In Quebec, lavish tax credits promote Montreal's Cité du Multimédia, a cluster of high-tech production activity (Telefilm Canada, 2002, p. 8). Some estimate the province subsidizes one quarter of the average costs of game production (Alliance NumeriQC). Although no other province offers comparable support, many studios receive federal tax credits for technological research and development, such as the National Research Council's Industrial Research Assistance Program (NRC-IRAP) and the Scientific Research and Experimental Development Program (SR&ED) on costs of research and development (CCRA, 2003). Some have accessed federal dollars through Telefilm Canada's New Media Fund (Telefilm Canada, 2003b).

Such programs have been implemented as economic stimulii, and. in the case of Quebec as nationalist cultural policy. Could they be reconceived so that, in addition to these purposes, they encouraged a Canadian games industry exceptional, not so much by the inclusion of iconic national content, but by virtue of experimentation and multiplicity? Elements might include: enlarged support targeted to small companies or prototypers, perhaps not as up- front grants, but a subsidy for a marketing and distribution; just as academics get subsidy for publication; prizes and awards for original, formula breaking, production; tax credits specified to support employment of women in design and programming roles; the establishment of production centres, where microenterprises could collectively access proprietorial authoring packages, legal advice, peer contact; and university and college level programs putting professional training alongside critical discussion of digital poetics such as those we are having here. Even in economic terms, there is a case for fostering Canadian game industry known for the creativity and experimentation of its developers, rather than as a cheap labor source for multinational conglomerates. If this project can be also be inflected to encouraging departures from the culture of militarized masculinity, it would be a modest contribution to constructively reshaping the trajectory of one of most powerful of contemporary media.

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