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Title

Indie Dreams: Video Games, Creative Economy and the Hyperindustrial Epoch

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Abstract

This essay draws on research undertaken as part of a research network project exploring the

growth of independent game producers in recent years and the associated changes in the

technological and economic conditions of the games industry in the UK, Europe and the North

American continent. It reflects on the possibilities of and challenges to a critical and creative

maturing of video games as a cultural medium, evaluating these in the context of contemporary

developments in global technoculture and the digital economy. Bernard Stiegler's critical

analysis of hyperindustrial consumer culture is mobilised in evaluating the dreams for an indie

future of video games as a creative force in digital cultural transformation.

Keywords

Indie games, video games industry, video games as cultural form, neoliberalism, Bernard Stiegler.

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Introduction

This essay presents some meditations on the present moment of videogame cultures and contexts of production. It is inspired partly by my involvement in the Creative Territories research project between 2014-2016. This UK Arts and Humanities Research Council-funded project assembled a network of researchers, creative industry actors and game developers to explore the changed conditions of videogame production in the years following the global financial collapse of 2007-2008, in particular the "rise of the indies." Case studies of game production contexts in the UK and the Netherlands were conducted and several game makers participated in the research network along with researchers from disciplines including game studies, social science, business and cultural geography. Efforts were made to include local community groups and local councils in network conversations. The network shared its findings with UK creative economy agencies Nesta and the UKIE (The Association for UK Interactive Entertainment) as part of its engagement and impact strategies. Creative Territories explored the possibilities for small and independent game developers and creatives to make their way in an industrial context that had changed considerably from the previous console-dominated landscape due to a combination of factors that I will discuss in what follows. These possibilities include the diversification of

videogame forms, scope and content through the increase in the number and (potentially) variety of game makers and the expanded options for funding, distribution and player community engagement. The maturing of the videogame as a form or medium of cultural expression – widely discussed in various fora and thematised in documentaries like *Indie Game: The Movie* (Pajot and Swirsky 2012) – was an abiding concern of Creative Territories.

The second major inspiration for these reflections arises from philosopher of technology and cultural activist Bernard Stiegler's critique of contemporary digital technocultural transformation in general and of online media culture in particular. Indeed, Stiegler's work informed the framing of the Creative Territories project which set out to explore nascent initiatives in collaborative co-location amongst independent game makers – with principals of three such collectives, the Bristol Games Hub (bristolgameshub.com), the Leamington Spa Arch Creatives (archcreatives.com) and the Dutch Game Garden (dutchgamegarden.nl) involved in the project network.[1] Stiegler's writings along with his initiatives addressed to post-industrial urban renewal in France played a part in shaping Creative Territories' efforts to address the situatedness of videogame production.[2] As I will discuss below, Stiegler characterises the effects of the neoliberalisation of the global economy on societies the world over as a damaging "hyperindustrial" process that erodes the social and cultural structures that situate and orient people in their particular time and place (Stiegler 2011). The task facing those concerned with cultural development today is first and foremost one of exploring the possibilities and pathways for renewal of those structures in the light of the new technological conditions of culture and society today. My interest in identifying and fostering indie game making as a culturally as well as economically valuable and sustainable practice proceeded from a conviction about the

importance of conceiving what is often taken to be an essentially digitally networked, global

business as belonging in local milieux and regional contexts. The project set out to move some

way beyond prevailing notions of the creative industries that have tended to treat creativity as a

natural resource of individuals that just needs appropriate educational stimulus and

infrastructural support in order to generate national (or regional) gains in the global marketplace

for media, arts and entertainment (Stiegler 2014a, Crogan 2015).

Stiegler's prolific writings on technocultural transformation have surprisingly little to say about

videogames. When they do occasionally appear it is as another example (along with social media

platforms and Google search) of the attention-capturing experiential forms of "hyperindustrial,"

globalizing, neoliberal audiovisual media that are the object of much of his critical account of

digital culture's ills. I will elaborate on this critique of the hyperindustrial "hyperconsumerist"

age below. In spite of this, and as I have argued elsewhere (Crogan 2015), Stiegler's work on

online media culture is highly relevant to assessing the development of videogames at this

"moment" where they have emerged as an important element in wider dynamics of digital

cultural change. While Stiegler is severely critical of globalized, neoliberal consumer culture, he

nonetheless insists it is vital that, individually and collectively, new ways of employing the

technologies and techniques of online digital media and communications are found and forged as

viable pathways to alternative cultural futures.[3] The cultural "therapy" (Stiegler 2013) for

today's multiplying and converging crises – political, environmental, educational, humanitarian

– is inevitably a therapeutics of our technological entailments. A consequence of Stiegler's

philosophy of human technicity for his cultural politics of the present is that everything rests on a

collective adoption of digital technology in the creative reinvention of digital culture, economy and society. Here the potential of videogames today assumes its full significance.

The Indie Future: Dreams and Doubts

Characterizing the potential of the transformation of the conditions of production of videogames in this way may seem somewhat portentious. I hope to justify it in what follows. To do so is for me only a critical intensification of the many articulations in recent years of the possibilities of a burgeoning indie game cultural milieu. Creative Territories' external partner and game developer and industry commentator Tomas Rawlings of Auroch Digital has championed video games as a media form able to treat topics and themes well beyond the narrow confines of entertainment. In his blog, *A Great Becoming* (Rawlings 2017) and elsewhere, Rawlings extols the potential of videogame design to tackle any or all of the significant subjects treated in literature or cinema in different but no less legitimate or substantial ways.[4]

In her presentation at the 2014 "Mapping the Collective" symposium for Creative Territories at the Digital Cultures Research Centre in Bristol, researcher, indie game proponent and developer Celia Pearce described the rise of the indies as a watershed moment in the history of videogames as a medium. The passage away from a large studio profile of console games production toward a more variegated and diversified sector was envisaged by Pearce as one towards a more culturally rich and less homogenous future for games as an expressive medium, one where they are able to realise their potential as playful, participatory forms of digital culture. Pearce cited the International Game Developers Association's 2014 Developer Satisfaction Survey statistic

recording almost half (48%) of respondents self-identifying as independent as evidence of this watershed moment (International Game Developers Association 2014).

In the context of Stiegler's sustained account of the "systemic stupidity" and destructiveness of the predominant mode in which digital cultural transformation is rolling out globally, these predictions for the future of videogames appear as a highly contrasting, hopeful vision. From Stiegler's perspective the cultivation of such a vision or "dream" of the future is essential for a therapeutic reformation of digital transformation. It must proceed, however, from an appropriately frank appraisal of the hyperindustrial epoch's "24/7" mediasphere. In *Automatic Society* Stiegler (2016) affirms Jonathan Crary's (2014) description of 24/7 global capitalist technoculture as one where everyday life is increasingly mediated for the purpose of the commercial exploitation of consumers, whose logging of their own activity feeds a computational machine monitoring and regulating in return their thoughts and behaviours. This tendency to mediatize every dimension of individual existence is destroying the sphere of personal and social life understood as separate from work and from commercial prerogatives and regulation. Crary evokes this tendency most starkly in discussing how sleep is the "last frontier" of late capitalism inasmuch as it represents an unprofitable (for e-commerce at least) respite from engagement in circuits of algorithmically driven stimulus and response whose colonisation is not yet fully achieved.[5]

The phenomenon of Free-To-Play (FtP) video game apps on mobile devices, built on a "freemium" revenue model, can be understood as playing its part in the extensive and intensive colonisation of everyday social existence by the major media platforms.[6] As David Nieborg

(2015: 5) shows in his analysis of *Candy Crush Saga* (King Digital Entertainment, 2012) as an exemplary case study of FtP game success, freemium games became the predominant kind of game app released on the App Store from 2011, in keeping with the general trend for apps on Apple's platform supporting its iPhone and iPad sales. In this way they contributed to mobile media's "disruption" of the existing mediasphere based on "stationary" media systems, including to the destabilisation of the relatively settled, console-based games industry as it had evolved from the mid-1990s to the late 2000s. In relation to the emergence of indie games from around this period, it was the combination of the effects of the global financial crisis on domestic purchases of game consoles around the same time as the increase in smartphone use and the explosion of demand for apps that was a powerful impetus for the growth of the independent sector of games production (Crogan 2015: 10-11).

As commentators such as Bart Simon (2013) have noted, the term indie is difficult to define, referring variously to a mode of production, a style of game design or visual aesthetics, a legal/economic description (to do with ownership of intellectual property), or an ethos or cultural scene of production and reception. Nadav Lipkin (2013) has shown that in its evocation of an oppositionality to the mainstream, indie often bears considerable ideological weight as the independent, alternative, individual, liberated, expressive, artistic (and so on) *other* to commercialised and standardised mainstream cultural production, but that these valuations are not immune from co-optation by capitalist mainstream promotional and marketing logics. I will return to this issue of what 'indie' means from the perspective of game developers below. Lipkin is certainly right to recall that capital is always ready to appropriate what emerges as its alternative. In this essay, I want to maintain Celia Pearce's sense of the significant potential of

the diversification of games production notwithstanding its susceptibility to its appropriation by mainstream games marketing and design strategies, but also to take critical account of the platform economics of online media forms that have shaped the conditions of production and distribution of indie games.[7]

Nieborg's rigorous analysis of freemium is essential reading for anyone concerned with ludic economics if they are to understand how games form part of the contemporary global media business. He explains how freemium is a constitutive part of the "multi-sided market" logics of the digital platform business model that has emerged with the rise of the major commercial entities that now dominate the internet. The platform model is one aimed at generating revenue by putting different "agents" together through the platform's provision of an infrastructure for access, payment processing, marketing, data gathering and analysis, and so on. Freemium games (and free-to-download apps in general) must be understood, in Nieborg's analysis, as part and parcel of this platform provision model. It represents the normal and normative mode through which smaller and independent app developers gain access to the platform's distribution services on an internet whose original vision of peer-to-peer sharing is severely curtailed and channelled by the major search and platform owners whose names we all know only too well. In return, the smaller creative businesses have the opportunity to amortize their investment in software development through attracting a sufficiently large user base to generate a revenue stream from the very small number of users who can be persuaded to make in-app purchases for upgrades, in-game currency, additional content or customisations, and so on. According to a 2016 industry survey (Swrve.com 2016), only 1.9% of freemium players made any in-app purchases and the top 10% of spenders accounted for almost half of the revenue. In anyone's terms this is a high

risk business model, but for the platform owner there is close to zero marginal cost in providing platform access to the app developer (Nieborg 2016: 2) and attendant benefits in potential marketing revenues, the maintenance of platform currency and so on.

As noted above, the growth of mobile device software platforms is a significant factor in the increase in the demand for the supply of video games and the ensuing stimulus to aspiring game makers, further encouraged by the possibility of retaining their intellectual property through the major platforms' standard terms and conditions. The emergence of mobile platforms should be understood as continuing but also extending the 'platformization' processes associated with the Web 2.0 phase of digital cultural development in the new millenium (Helmond 2015). As first and foremost an economic strategy (Srnicek 2017: 254) for adopting the technological possibilities of "programmability" (Helmond 2015: 1) in a global capitalist environment, the rise of digital media platforms has been accompanied and supported by discourses promoting an understanding of them as providers of a neutral and open platforms for user interactions and content sharing (Gillespie 2010). Nieborg provides a rigorous account of how the economic realities of platform capitalism impact on the programming of game developer third parties seeking their fortunes on the major mobile platforms.

In relation to our consideration of the problematic aspects of the explosion in independent game production as part of contemporary global neoliberal media culture, Nieborg's account of the *Candy Crush* success describes how developer King Digital have formalized the design and marketing processes of its major hit into a formula for the production of FtP titles. This formalization is marked by the incorporation of platform economics at all phases of the design-

to-market journey. Nieborg shows how the serialized monetization logics and marketing strategy infuse the entirety of the game design process, evaluated by "metrics" concerning the prospective game's player "acquisition, engagement, retention, and monetization" (Nieborg 2015: 6). In King Digital's production formula the game is envisaged, developed, released, marketed and updated as an experience of and in a staged freemium monetization. Towards the end of his essay Nieborg offers some reflections on the critical significance of this freemium condition of production, noting the inherently monopolistic tendencies of platform capitalism, the concentration of capital and power in the games industry (noting that very few game titles make a profit, and that very few of these have substantial success), and consequently poses a question about the sustainability of the FtP model (p.9). Through their effects on game design rationale and procedures these tendencies influence the possibilities for indie game production to contribute to the cultural enrichment and diversification of video games in mobile platforms and more widely.

Olli Leino and Sebastian Möring (2016) have characterised FtP games as exemplary instances of a "neoliberal" game for a neoliberal player who is no longer (if she ever was) the player conceptualised in "liberal" or "romantic" theories about games and play: someone with free time on their hands looking for opportunities for self expression or actualisation. The neoliberal player plays in a world where the distinction between work and play makes little sense, and every activity is approached as the opportunity to increase one's personal capital through achievements, reputation markers, awards, and so on that can enhance their social media profile, number of followers, resumé, and so on. Leino and Möring comment on the experience of playing the FtP *Pocket Planes* (Nimblebit, 2012) as typifying neoliberal era gameplay. The game

presents itself as a resource management simulation about the logistics of operating an air freight and transport business. Reflecting on the experience of playing it, the authors propose that *Pocket Planes* and freemium games like it are not even "games" in the conventional understanding of theorists like Jesper Juul who draw on the liberal formulations of Huizinga and Caillois. What is essential in Juul's account – the agency derived from player efforts at developing skills and in-game resources – is routinely rendered inconsequential by the staged introduction of incitements to purchase new capacities for progress through the game's levels. These new capacities rendered previous gameplay redundant and, retrospectively, futile, so that in effect to purchase an upgrade was the only meaningful "game mechanic".[8] This piece of software, which the authors suggest is perhaps better approached through Peter-Paul Verbeek's description of FtP as a "persuasive technology," is not so much a videogame understood as "as a tool for fun, but rather could be described as a machine designed to extract cash from its users" (Leino and Möring 2016: 153-154).

This loss of belief in FtP game apps as games is an instance of what for Stiegler is a systemic and profoundly dangerous discrediting of and disbelief in reality in the neoliberal period. It lurks beyond or perhaps beneath the inherently unsustainable nature of the monopolistic drive of the current era of commercial media platforms that Nieborg gestures toward, and which dominate the terrain in which the indie game makers are operating.[9] The "conservative revolution" set in train by Reaganite/Thatcherite policies of the 1980s and accelerated globally in the 1990s "new world order" is in Stiegler's view less a radical departure from the preceding consumerist capitalism than a decisive exacerbation of the destructive tendency of industrial capitalism's endless war of technological innovation (Stiegler 2016: 81). He argues in *Automatic Society* that

Roosevelt's "New Deal" of the 1930s and the subsequent Keynesian Welfare State models such as in post-war Britain and the U.S were a politically legislated and publically implemented compromise in the face of the already apparent tendency toward the technological redundancy of greater and greater proportions of the working population. The social and cultural adjustment to capitalism' permanent economic war sought to preserve the social and cultural value of labour from its ravages. It is this principal that was abandoned in the free market ideology of the neoliberal revolution, and along with it the credibility and even the significance – which is to say the *reality* – of a society based on work. Beyond the resulting socio-economic misery – felt first most intensely first in the deregulated "Global South" of neoliberal globalisation – the major casualty was the attendant liberal possibilities of individual actualisation and collective improvement built on the capacity to work and to earn the time to dream of and explore a better existence. Today, the predictions of the impacts on employment of the rising wave of digital automation put in doubt the viability of the principle of the right to work and the assumption that full employment is a default goal of economic policy in the industrial democracies.[10]

At the same time the digital economy is driven by an intensifying channeling of the attention of individuals less and less of whom have a sustainable level of income to consume the goods and experiences accessible online 24/7 through a shrinking number of global media platforms. Their consumer-based identity is, in Crary's analysis, reaching the limits of its psycho-physiological exploitation while the neoliberal social transformation provokes environmental and military-security crises. Consequently, it is increasingly difficult to hold faith with the "liberal" vision of a right to work and to play, however tenaciously maintained it might be in many spheres both within and outside the academy. The maladjustment between the techno-capitalist and cultural-

political systems appears as what Stiegler characterises as a vicious circle spiralling toward the worst (Stiegler 2016: 100).

In light of the trends evident in the global technocultural context in which game making has reached this watershed of potential independence, then, I would argue that there is doubt over the future for game creatives to realise this potential through their productive labour. Doubt means to be in two minds, to not be sure of what is or will be the case. Stiegler dwells in this wavering of belief in his critical (and disturbingly prescient) analysis of the widespread signs of a crisis of the Western cultural vision of a liberal democratic industrial society and all of the values that animate and sustain it. What Stiegler calls the "hypercapitalist" turn to the regulation of consumption through the intensive and extensive development of marketing and advertising has progressively undermined the values of liberal democratic social existence that sustained it in the form of what Max Weber's characterised as the spirit of capitalism.[11] When the spheres of private and collective experience in which personal and social development unfold become commoditized through the strategies of marketing, promotions, sponsorship and mass mediation they tend to degrade the singular, particular and (precisely) *non-quantifiable* value of that experience. At the same time the activities, routines, rituals and skills practiced in these spheres become the object of value extraction, standardisation and consumer conditioning so that people are "sold back" skills and experiences that were formerly part of their own cultural but not commercial life. As a result hypercapitalism amounts to what Stiegler calls a second wave of "proletarianization" (Stiegler 2010) after that of the workers stripped of their skills by their having been extracted and incorporated in the new factory machines such as the Spinning Jenny, Arkwright's Water Frame, the mass assembly process and the industrial robots that emerged in

the post-war period. Just as with the proletarianization of labour so many people lost the traditional skills underwriting their social identity (their "*savoir-faire*"), the consumer has been subjected to a process of the proletarianization of their way of life, their "*savoir-vivre*" (Stiegler 2011: 62-64).[12] The neoliberal abandonment of the principles of the welfare state compromise and the ideological promotion of the "free market" has dramatically accelerated this expansion of proletarianizing, hypercapitalist consumerism.

This was the context of the emergence of the digital age, whose principal vehicle of generalised dissemination, the open source, open access, peer to peer internet, was quickly colonised by venture capital and the monopolistic tendencies noted by Nieborg above. Disbelief in a freemium game's ostensible offer of some fun is, in this perspective, a symptom of a much more widespread and profound disenchantment with the state of social reality as a space offering the realization of one's dreams. The design and economic logics "realised" in a game like *Pocket Planes* and like those made according to the *Candy Crush* formula offer an experience that many more people than Leino and Möring find to be a cynical manipulation of their hopes for playful engagement in a challenge, for a fun diversion or for some kind of experience of self-actualization, reflection or "liberal" agency. This discrediting of the experience of play erodes the incalculable value of the investment in games as worthwhile practice that underwrites the entire economy of video games. This erosion of the very motive to play casts doubt over the future of games as an independent, culturally valuable and valued form. Beyond or rather by way of the significant constraints on a flourishing, diverse ecology of independent games exercised by the powerful monopolising impetus of the current platform economics that have driven the rise in demand for games, the pathway to sustainable commercial success for developers has

converged with a destructive tendency of those same economics. This paradoxical situation is neither inevitable – the economic does not have to extinguish the life from culture even though it is irreducibly dependent upon it – nor restricted to the realm of video games. Indeed the current crisis of the globalised hyperconsumerist system extends to all aspects of social, cultural, political and environmental life in its structurally auto-destructive expansion.

Communities of Production in the Hyperindustrial Age

The tension between personal and cultural development and the destruction of experience through its commodification was borne out in the dialogues among participants of the Creative Territories network. Those contributors pursing the indie game pathway all professed their passion for games as a major source of their motivation. As Mark Banks and David Hesmondalgh note, research on the reality of work in the creative industries shows that it is often marked by an exploitation of the passionate investment of workers committed to the intrinsic value and rewards of self-actualisation from their labour (Banks and Hesmondhalgh 2009). In the case of the aspiring game creatives striking out on their own in startup and small size enterprises, this investment in creative realisation is what sustains them in this risky venture, as much if not more than the remote possibility of achieving "wealth and fame" by becoming the next Rovio (*Angry Birds*) or King Digital – another motivation for aspiring media creatives to be found in the "creative industries discourse" (Banks and Hesmondhalgh 2009: 418). In fact this hope of a smash hit success was mentioned only occasionally, and indeed commercial motivation generally was articulated as a desire for financial stability and security.

This affective commitment to the creative pleasures of the highly technical, logistical and laborious work of making interactive digital media forms was shared across friendship groups that connected them in various alliances and informal associations and support networks. Orlando Guerara-Villalobos (2011) has characterised these as a "community of practice" among game and other digital creatives. The establishment of the UK game hubs involved in the project, the Bristol Games Hub and the Arch Creatives of Leamington Spa, was animated by the shared communities of practice of the respective founding members.[13] What made these hubs different from the kinds of University and local government initiatives in incubator and co-working spaces for game developers and other digital creatives was the extent to which they were driven by members of such communities of practice rather than by the objectives and economic agendas of these other institutions. It was the desire to develop these communities into more organised forms that materialised key aspects of the collective support and cooperation they provided – into what in *The Good Hubbing Guide* (Crogan 2015: 12) I call a "community of production"– that led them to the formulate and formalize their collective arrangements for the provision of a shared working environment.

These communities of production have so arranged themselves to support their members through taking advantage of collective cooperation in various ways.[14] In most cases those independent enterprises must nevertheless negotiate with the demands of the evolving mainstream video game industry to grow and maintain the revenue required to survive against the odds which do not favour new businesses in any domain. The two founding principals of the Bristol Games Hub, Auroch Digital and Opposable Games, have been successful at this negotiation, growing from small to medium size enterprises. Their output has consisted of a mix of self-authored

games, contracted work on licenced titles, commissions and awards to design games for heritage, third sector and other kinds of non-commercial organisations, independent commercial releases and more experimental or aspirational projects. Opposable Games' flagship title, *Salvaged!*, an innovative dual screen game that procedurally generates new maps, is available on Steam Early Access at the time of writing, while its work on license includes *Legends of Xor* (Rendog) for the Android platform and a cross platform mobile game of the children's television programme, *Bottom Rocker Street* (CITV/Fubaloo). Like Auroch Digital, Opposable have also made projects for the UK scientific research institute, the Wellcome Foundation, as part of its ambit of popularising and communicating science. For its part Auroch have a similar mix of projects for which they own the intellectual property of some and others they take on under commercial contract, as well as experimental work. In regard to the latter, Auroch's Serious Games intitiative is influential in promoting the expansion of the nature and scope of experiences and subject matter with which video games can meaningfully engage.

The indie game enterprises involved in the project find themselves in a dynamic situation where exposure to the pressures of the commercial mainstream is a constant. They must respond with appropriate "resilience" to technological and commercial shifts in the mode and conditions of production. For instance the rise of the Steam personal computer (pc) distribution platform and the Steam Greenlight initiative which began in 2012 opened up incentives for indie game makers to return to the pc platform. This led to a significant re-tooling for developers who around 2010 had imagined that the Apple app store and Google Play would dominate the foreseeable future of game distribution. Steam's Greenlight initiative and the platform's more player-oriented community ethos emerged as a significant alternative to the platform logics of the app

distributors whose monopolistic tendencies have become increasingly apparent. User support (in the form of pledges to contribute towards the "greenlighting" of a game) played a significant part in Steam's decision to support the most popular Greenlight games going onto the Steam service. Nothing stays the same for long however, as the promise of Steam's Greenlight initiative and the platform's relations with aspiring developers have altered, with more commercially oriented (and less community-driven) procedures for Steam Greenlight's replacement, Steam Direct. Just launched at the time of writing, Steam Direct appears to provide developers something closer to the "open market" of the app platforms. Subject to a brief verification process, any game can be uploaded onto Steam Direct for a fee (initially set at $US100). This fee is only refundable if the title earns $US1,000 in revenues through its premium or FtP release strategy (Steam Blog 2017).[15]

The Greenlight venture led to a vast explosion of new game titles published monthly on the Steam platform, and Steam Direct seems designed to exploit the popularity of the platform as dominant marketplace for pc games. Greenlight's effect on pc game development had already led to predictions of an "indiepocalypse" through the flooding of the game market with an uneven mass of games in beta version, making it difficult for the better quality projects to be recognised and to find the player support to take them from beta into full production. Most prominent of these predictions was put forward by Anton Savchenko (2015) on Medium.com. What Savchenko did not mention is that this oversupply echoed the situation on the mobile app platforms where it has become less viable for the vast majority of developers to provide content to the platform with little chance of achieving revenues to amortize the costs of production.

Game developers on the Creative Territories project identified with Alistair Doulin's (2010) characterisation of indies as "mindies" – indies who accommodate the mainstream as part of their mode of operating in order to maintain a viable revenue stream and so sustain the projects they are personally invested in both aesthetically and financially.[16] For some this mindie mode of operating has and will prove to be effective for a shorter or longer period of time depending in part on the mindie's exposure to changes in the technological and economic trends in game production and how they impact regionally and locally. Recent history has shown this to be a very fluid situation, with new trends in digital media such as VR quickly emerging to attract attention and considerable investment, but susceptible to disappear just as quickly.

In some ways this is as it has always been in the age of "industrial arts" that demand the kinds of capital investment and technological research and development to become and remain profitable in the permanent economic war of innovation. Alfred Hitchcock discussed the tight constraints on his artistic aspirations – the passion that drove him to continue to work in pictures within the Hollywood system – by contrasting the costs of film production to the costs of painting a picture:

> I am a prisoner of commercial compromises. I wanted to make movies by abandoning myself to my ideas, but that would only be possible if a film came in no more expensive than a pen or a sheet of paper. What would happen if one gave a painter a blank canvas worth a million dollars, a palette worth $250,000, $300,000 worth of brushes, a $750,000 box of paints, and then told him to do whatever he wanted according to his inspiration, but without forgetting that the finished painting would have to bring in $2,300,000? (Hitchcock in Stiegler 2011b: i).

As Adorno and Horkheimer's mid-20th Century analysis of the "Culture Industries" showed, the industrialization of mediation has been driven by the requirements of the capitalist system to coordinate consumption with production. In this influential analysis the commercialisation and monopolisation of the means of producing images, signs, and symbols tended to insert the individual mentally as well as physically in the modern industrial system. Stiegler accepts much of this analysis but questions its assumptions about the nature and potential of industrial technology. In Stiegler's account of the technicity of the human, industrial machines must be approached as a compositional element of individual and collective becoming. The reification of psychic life and social relations is a particular, toxic exploitation of human industrial becoming and not its inevitable outcome. He nonetheless proposes that the digital transformation has (unhappily) coincided with and exacerbated a "hyper-industrial" mutation of this systemic exploitation of culture which "integrates the world of culture and the mind in its entirety into an enormous technological-industrial system where the same machinery produces material goods and disseminates symbols and other forms of 'spiritual nourishment'" (Stiegler 2017: 97). For Stiegler, who is a thinker of tendencies, the "hyper-industrial" describes a dangerous adoption of the possibilities of the digital technological transformation of the very means of symbol-making and sharing. In this view the frequent Silicon Valley-led "disruptions" of the established industrial, economic, legal and socio-cultural organisation of our collective existence take on a nihilistic character in their exclusively neoliberal capitalist motivation (Stiegler 2016). This can be extended to the rise of the mobile and game distribution giants under consideration in this essay.

The potential of the expansion of independent games production articulated in the hopes and dreams of Pearce, Rawlings and others discussed above is the potential for a significant reorientation of the adoption of the digital toward a less monopolised and prescribed symbolic production, toward more diverse communities of production and consumption of digital games, communities whose organisation and *raison d'être* are not reducible to the commercial prerogatives of platform economics. Indeed, at stake is the dream of realising the most significant potential of networked, interactive digital communications – to reverse the systemic deskilling of the consumer as one who can only receive manufactured goods and experiences and who lacks the knowledge of their production required to interpret their collective significance and even to participate in their iterative reproduction. The player as critical interlocutor and co-creative supporter and collaborator, as co-investor, as community member, these are all formulations of the desired dream of the "rise of the indies".

In the post-broadcast media environment that video games exemplify and indeed ushered in as part of its vanguard, aspiring media creatives do not seek positions in large industrial organisations like the movie studios that provided Hitchcock the labour, expertise, technical and capital resources to produce media. They are increasingly expected to invest in themselves and bring their creativity to a multi-sided market provided by the platform (itself piggy-backing on the common wealth generated by the internet's engineers and inventors, and state-supported communications infrastructure). In neoliberal terms, they are enjoined to act as the entrepeneur of the capital of their own (suitably incorporated) person. The large platforms owning the most profitable aspect of industrialised production – distribution – can afford the luxury of choice as to whether or not to invest in the creative labour that sustains the entire system and which aspect

of its inventiveness to speculate on.[17] This is so long as sufficient numbers of small and indie

providers take on the risk themselves and by doing so sustain the variety and vibrancy of the

platform and so maintain the attention economics of its multi-sided revenue generation. So long

as – but this is of course an unsustainable situation, as Nieborg hints at toward the conclusion of

his analysis.

Conclusion

The threat posed to the growth and maturing of independent game production by oversupply

bubbles in the mobile app platforms and, more recently, on Steam, can perhaps be identified as a

continuation of periodic boom and bust cycles in the short history of the video games business.

This view is consonant with Mirko Ernkvist's account of this history in which he argues that

"crashes and shake outs were a regular part of the video game industry during its first 15 years

[1971-1986], with a number of severe crashes or major firm shake outs occuring in every

platform after a short period of high growth" (Ernqvist 2006: 1). Following the relative stability

in the 1990s and early 2000s of the major console era – one however in which histories of

intensive intellectual property acquisition and rationalisation drives, and various technological

wars over console and controller technology, gestural interface systems and so forth deserve

further attention – the "interesting times" of the global video game business have returned.

Ernkvist takes a rather positivist attitude to this history, identifying it as the inevitable

phenomenon of what Joseph Schumpeter termed in the mid-20th century the "creative

destruction" that characterises modern techno-industrial capitalism (Ernqvist 2006: 21). Derived

from Marx's critical account of capitalism, creative destruction is Schumpeter's dialectical

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theorisation of the capitalist industrial war of innovation that proceeds by creating new products and services that destroy the value of established ones (Schumpeter 1976: 81-86). As a default rationale informing hypercapitalist disruption, creative destruction has the merit for neoliberal proponents of attributing creativity to the capital-intensive, heavily marketed ventures aimed at destroying established commercial-legal and socio-cultural arrangements in order to create a new desire for a new product or service. Despite his own ambivalence about the long-term sustainability of this "essential fact" of capitalism (Schumpeter 1976: 82), Schumpeter's dialectical "sublimation" has been adopted in free market capitalism in a perspective which tries to skip over the risks attending the composition of destruction with creation in the capitalist war of innovation. For Stiegler, the question that must always be asked of creative destruction is under what conditions can and does it become "destructive destruction"? When and how does the work of introducing technological innovation tend to form a less creative and a more toxic and damaging alteration of society and culture?

For Stiegler, in the age of neoliberal globalization – that coinciding with the history of the video game industry – "creative destruction turns into destructive destruction, something that becomes visible, even if it does not become totally clear (far from it), with the crisis of 2008" (Stiegler 2016: 81-82). It tends increasingly to destroy, for example, a society's orientation to collective goals and values and limit the capacity of people to reflectively and creatively adopt a technological innovation into their social existence. It de-motivates people so that they see no point in cultivating their creative or other skills, or are satisfied to resort to a routine exercise of them according to calculations of revenues and marketability. This turning from creative to destructive destruction is the challenge today for the rise of the indies. Their exposure to the

ongoing cycles of "industrial mutation" (Schumpeter 1976: 82) in the video game industry in the predominantly precarious mode of neoliberal flexibility is the tempering condition of the vista of a diversifying and culturally enriching expansion of independent game production. Contrary to received notions, as Hitchcock's ruminations and the resonating "mindie" label indicates, creative workers are by no means commercially naïve. They have been negotiating with commercial constraints for a long time in industrial society. And if the compromise between exceptional creativity and the established routines of production and monetisation is ongoing, this does not mean it is somehow perpetually animated as if some undying "creative instinct" or spark will always sustain hypercapitalism. In question today is precisely the sustainability of the globalising neoliberal intensification of the siphoning off of creativity (among the other cultural and environmental "assets" it draws upon) for commercial prerogatives. We are indeed at a watershed in this regard. The cycle of creative destruction might not repeat endlessly; in fact, nothing is more doubtful today.

The dreams of those individuals and collectives whose passion for the creative potential of forming significant experiences through the symbol making and configurative potentials of video game technologies are a projection, a fictional support for their laborious, risky efforts to negotiate the limitations of the mindie compromise. This is not to say that they are insubstantial, or a delusion. On the contrary; those dreams are at the origin of the creative realisation of indie and, indeed, of all creative media production. It is crucial to be "able to differentiate between good and bad fictions" as Stiegler has it, inasmuch as "reality is …always projected by the imagination: fiction is a component of consciousness" (Stiegler 2017: 99). In this regard, the "watershed moment" of the indies assumes its broader significance as a moment of possibility

and challenge to the hyperindustrial mediation of "reality" by the "bad fiction" of the "systematic industrial exploitation of our consciousness" (p. 99) prosecuted today in the increasingly destructive destruction of disruptive neoliberal globalisation.

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[1] The Bristol Games Hub website: http://bristolgameshub.com; the Leamington Spa Arch
Creatives website: http://archcreatives.com; the Dutch Game Garden website:
http://dutchgamegarden.nl.

[2] Through both Ars Industrialis—the association he co-founded in 2005—and the Pompidou
Centre's Institut de Recherche et d'Innovation that he leads, Stiegler has been involved in
projects in Nantes and Provence exploring post-industrial urban renewal with local stakeholders.
For IRI he leads a major cross-institutional project in the Plaine Commune region aimed at
cultural and economic renewal of this socio-economically challenged area in the northern
suburbs of Paris (Institut de recherche et d'innovation 2016).

[3] In this regard I would note that, in discussion (Ars Industrialis 2011) of a paper I gave at the
inaugural conference of the Ecole d'eté d'Epineuil-le-Fleuriel in 2011 on the critical possibilities
of experimental videogames, Stiegler accepted my proposition that videogames are, like other
technical forms mediating experience, a technical *pharmakon* – that is, in Stiegler's analyis, they
are both poison and cure, a technical prosthesis of an irreducibly prosthetic human existence with
curative and thereapeutic as well as toxic potential for the ongoing individuation of human
psychic and collective becoming.

[4] As principal of Auroch Digital, Rawlings was a co-founder of the Bristol Games Hub. This
would also be a further (hardly necessary) riposte to the controversial denial of any such
potentiality for videogames by the Chicago film critic, Robert Ebert (Ebert 2010). Auroch's own
initiatives for expanding the scope of games as expressive and critical forms constitute the
"GametheNews" division of Auroch's activities.

[5] Crary notes, however that surveys are showing that many people report being awoken by
notification signals emanating from the online devices lying by their bedsides (Crary 2014: 8).

[6] Through her conceptualisations of 'ambient play' and 'soft play' Larissa Hjorth elaborates the influence on everyday culture of digital games and 'ludified' experiences more generally through their pervasive mobile mediation (Hjorth 2017).

[7] In a similar vein, in their study of the development of the Indie MEGABOOTH promotional venture in major games industry expos and conferences such as PAX and GDC, Felan Parker, Bart Simon and Jennifer Whitson (2017) explore how the ambiguous status of indie games vis-a-via the mainstream is powerfully marked in the history of Indie MEGABOOTH. They provide a thoughtful analysis of its work both in the well-known showcasing of indie games at industry exhibitions, but also as cultural intermediary for indie game makers through networking and support activities, including between key actors and gatekeepers in the mainstream games industry and the game developers whose aspirations straddle financial security and indie ideals of creative self-realisation.

[8] Leino's analysis of playing *Pocket Planes* was the substance of his paper at the 8th Philosophy of Computer Games: Freedom in Play (Bilgi University, Istanbul, 2014). The frustrating and demoralising character of this encounter with the freemium business model masquerading as a game was powerfully evident in his presentation.

[9] The crisis of belief in the news reporting of events in the "fake news" phenomenon is the latest and perhaps most serious manifestation of this accelerating crisis of belief today.

[10] Carl Benedikt Frey and Michael A. Osborne's Oxford Martin School report on the future of work (Frey and Osborne 2013) is the most well known analysis and prediction of the effects of AI-based developments in automation on employment.

[11] Hypercapitalism is hyperindustrialism seen from the perspective of mediated consumer society. Stiegler analyses hyperindustrial hypercapitalism across the three volumes of the *Disbelief and Discredit* series (Stiegler 2011, 2013b and 2014). See the third volume entitled *The Lost Spirit of Capitalism* (Stiegler 2014b) for an account of hypercapitalism as the crisis of the "spirit of capitalism" that Max Weber identified as the psychic and collective dream (Stiegler's formulation) animating capitalist modernity.

[12] Stiegler resumes his analysis of "generalized proletarianization" in the introduction to the second volume of *Disbelief and Discredit*: "The process of individuation today, and insofar as it consists in a permanent transformation of *savoir-faire*, of *savoir-vivre*, and of knowledge [*connaissance*], occurs only in conditions of extreme control, to the point that it becomes doubtful that this is still a matter of individuation. Gilbert Simondon expresses such doubt in relation to the *savoir-faire* of the worker-become-proletarian, hence his assertion that the proletariat has become disindividuated. And I myself harbour such doubts in relation to the *savoir-vivre* of consumers, whom I believe to be disindividuated, and thus proletarianized in their turn, resulting in what I have called generalized proletarianization" (Stiegler 2013: 3).

[13] The Dutch Game Garden came into existence more through the efforts of founding principals supported by regional government initiatives in linking university graduates with enterprise opportunities. It nonetheless drew on the informal contacts and networks of the founders in building the structures of cooperative and mentoring support for the indie developers taking residency in the DGG.

[14] *The Good Hubbing Guide* (Crogan 2015) provides a description and evaluation of the key features of the organisation of the three game hubs included in the project's network.

[15] Greenlight also required an entry fee from developers, but this was donated to a charity by the Steam platform owners, Valve Corporation. No such undertaking appears in the communications attending the launch of Steam Direct.

[16] I thank Neils Hoogendoorn for introducing this term into our discussions at the first Creative Territories Worskhop at the Bristol Games Hub, Bristol in May 2015.

[17] This is the key insight of Michael Chanan's "Economic Conditions of Early Cinema" (1990): the commercial potential of the mass reproduction of experiences – of what Stiegler calls "industrial temporal objects" (Stiegler 2011b) – emerges not first but most substantially in taking control of and investing in their mass distribution. It remains valid for thinking the conditions of the emergence of the "new media" as they were called, however transformed the conditions and technologies of distribution are in the "hyper-industrial age". It is the very persistence of this capitalist control over distribution, which is enabled by the established legal and institutional supports of intellectual property *even as* the disruptive actions of digital venture capital exceed and render outmoded existing legal and social frameworks, that is central to the destructive (and indeed auto-destructive) tendency of hyper-industrial capitalism.