

Triple-A

The Political Economy of the Blockbuster Video Game

David B. Nieborg

Triple-A

The Political Economy of the Blockbuster Video Game

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. D.C. van den Boom
ten overstaan van een door het college van promoties
ingestelde commissie,
in het openbaar te verdedigen in de Aula der Universiteit
op woensdag 22 juni 2011, te 15:00

door

David Bartzoon Nieborg

geboren te Amersfoort

Promotiecommissie:

Promotor: *prof. dr. J.F.T.M. van Dijck*

Co-promotores: *prof. dr. W.C. Uricchio*

dr. J.A.A. Simons

Overige leden: *dr. J. Goggin*

prof. dr. J. Jansz

prof. dr. P.P.R.W. Pisters

prof. dr. J Raessens

prof. dr. C. H. de Vreese

Faculteit der Geesteswetenschappen

Work hard

Play hard

Table of contents

PREFACE: THE BIGGEST BLOCKBUSTERS	3
CHAPTER 1 - INTRODUCTION	8
1.1 Commodification, techno-economics and spatialization	12
1.2 Focus: Software, hardware and industry	17
Hardware: The console cycle	19
The cultural game industry	22
1.3 A novel approach: Unpacking the Triple-A commodity	26
1.4 A critical material approach to game studies	29
Methodology: approaches, sources and data collection	31
CHAPTER 2 - PROLONGING THE MAGIC	36
2.1 The hybrid console cycle	41
A knight in expensive horse armor	44
2.2 The anatomy of the blockbuster video game	49
Call of Duty: A billion dollar franchise	51
Branched serialization	56
CHAPTER 3 - THE FLOW PUBLISHING LOGIC	63
3.1 A planned flow	66
Miège's commodity fetish	70
3.2 Both flow and publishing	75
CHAPTER 4 - THE GAME VALUE CHAIN	80
4.1 The Triple-A market segment	82
4.2 Who is in and who is out?	89
Reconfiguring the value chain	91
CHAPTER 5 - PUBLISHING POWER	99
5.1 Value chain integration	102
Co-dependency between platform holder and publisher	107
5.2 Value chain disintermediation	111
Outsourcing art and technology	112
Marketing and PR: Building Buzz	113
Commodity extensions: Downloadable Content	119
CHAPTER 6 - A TECHNO-ECONOMIC LOGIC	121

6.1 The project of control	124
The era of incumbents	128
6.2 The platforming strategy	132
Setting the standards: The emergence of the dedicated console	136
Market choice boxes	140
6.3 A platform market	142
The dedicated console versus the PC	144
Platform lockdown & perfect enforcement	147
CHAPTER 7 - PERPETUAL INNOVATION	152
7.1 Innovation studies 101	157
A disruptive innovation?	162
Wii are the champions	165
7.2 The economics of platforming	169
Network effects in an upgrade culture	172
CHAPTER 8 - FOR THE WIN!	179
8.1 The Tyranny of the Hit	182
8.2 From Risky Business To A Controlled Gamble	187
8.3 The rationalization of cultural production and circulation	193
The implications of commodification	195
Marketing and cataloguing	200
CONCLUSION	207
Towards the unfinished commodity	208
Limitations of the study	212
Towards platforms of consumption	215
SUMMARY	219
NEDERLANDSE SAMENVATTING	221
BIBLIOGRAPHY	225
LUDOGRAPHY	240
FILMOGRAPHY	244
ACKNOWLEDGMENTS	245
APPENDIX	247

Preface: The biggest blockbusters

During the 2008 E3 Media and Business Summit, the game industry's annual game trade show and a major marketing event, a gleeful Don Mattrick took the stage to outline the Xbox 360 strategy for the coming years. "And welcome to Xbox 360", Microsoft's Senior Vice President opened the press conference, "home of the biggest blockbusters and home to fun and entertainment for everyone. Big franchises are a mainstay of our industry. And the biggest sellers are on Xbox 360". His opening statement neatly summarizes the core tenets of the main game publishing strategy pursued by Microsoft. That is, to put it in marketing parlance, offering consumers big propositions, part of even bigger game series or franchises. Five action-themed blockbusters in particular were singled out: *Call of Duty 4: Modern Warfare* (2007), *Halo 3* (2007), *Bioshock* (2007), and *Assassin's Creed* (2007), all released during the 2007 holiday season and *Grand Theft Auto IV* released April 2008. Mattrick's introduction and his emphasis on the five blockbuster titles not only demonstrates the extent to which game hardware and software are integrated on an economic and technical level, the specific focus on "the biggest blockbusters" is also indicative of a hit-driven publishing strategy.

Even though Mattrick did not allude to it in his speech, what was already a natural part of the next-gen blockbuster game is not only the fact that these games are part of franchises, but also that they are extended online after launch. Microsoft's foray into the game industry was considered "a gamble" but it also positioned the company to benefit from "opportunities for new businesses models, such as spectacular events, downloadable demos and game expansions" (Takahashi, 2006: 110). To be sure, adding post-launch content to a game is nothing new.¹ Yet, what sets the post-launch publishing strategy for the Xbox 360 apart from previous generations of console hardware or from hardware platforms such as the PC is the ubiquity and institutional integration of, so called 'paid-for downloadable content' (PDLC) for virtually all Xbox 360 titles.

For example, the first-person shooter *Halo 3* saw a tightly integrated post-launch PDLC release schedule. Conversely, for the single player game *Assassin's Creed* PDLC seems to have been an afterthought having no add-ons at all. However, the inevitable sequel provided the

1 PC gamers are probably familiar with the expansion pack—a format best understood as a self-contained retail addition to a stand-alone game—for franchises such as *The Sims* (2000 -) or *Battlefield* (2002 -). Next to physically distributed expansions, PC games have routinely been upgraded and altered via digitally distributed patches well before the advent of downloadable content on the Xbox 360.

publisher with a chance to correct the previously missed revenue opportunity. *Assassin's Creed II* (2009) offered three substantial add-ons totaling \$15.² More so than any other contemporary game franchise, the annual installments of the *Call of Duty* series (2003 -) not only formalized and institutionalized the franchising strategy, it also upped the ante in terms of post-launch content by experimenting with the pricing, availability and release-timing of so called 'map packs'. Late 2010, five years into the seventh console cycle, this led to a situation in which the franchise's publisher, Activision Blizzard, could boast that a single piece of PDLC for the first-person shooter *Call of Duty: Black Ops* (2010) draws in more revenue than many of its competitor's fully priced blockbuster games.³

The unprecedented success of the *Call of Duty* series and Don Mattrick's focus on the biggest blockbusters should be seen against the background of changes in gaming hardware, software and the game industry. The introduction of the Xbox 360 (2005) and the Playstation 3 (2006) started what is widely referred to as the 'next-gen' console cycle. The next-gen moniker is a relative notion as there have been six console cycles as of the 1970s. The seventh cycle of dedicated console game hardware is better understood, then, as either the next-gen cycle, the high-definition (HD) cycle or the hybrid console cycle. The HD notion signals the consoles' increased computational capabilities, allowing for higher resolution images and thus more (photo)realistic video. The hybrid status of the next-gen consoles indicates the mixture of physical and digital distribution mechanisms of blockbuster games. The game console has come a long way since Atari's *Home Pong* (1975) console integrated both the game and its controllers—two bidirectional dials—into the hardware. The practice of console game play, however, is still very much the same. Console games are still played either alone or together in front of the TV set in a domestic setting. But what fundamentally changed is the way in which blockbuster games come into being, how they are distributed and marketed. The next-gen cycle not only signals a change in game hardware but also alters the blockbuster video game in an economic, technologic and cultural sense. During the next-gen cycle, a single blockbuster

2 In comparison, the suggested retail price for next-gen titles ranges from \$49.99 to \$59.99. Given the many online web stores offering next-gen titles, bargain hunters should be able to find cheaper prices even at launch.

3 Activision Publishing CEO Eric Hirshberg stated in a 2011 earnings call: "The downloadable content we have planned for the Call of Duty universe, alone, should have more commercial potential on its own than most standalone console games. In fact, our first DLC release, Black Ops: First Strike launched on the Xbox 360 on February 1, and that pack set new Xbox Live record with more than 1.4 million downloads in the first 24 hours, an increase of more than 25% over the day one performance of our first DLC Map Pack for Modern Warfare 2 last year" ("Activision Blizzard's CEO Discusses Q4 2010 Results - Earnings Call Transcript", 2011).

title is able to draw in over a billion dollar in revenue in a matter of weeks.⁴

My question is then, how to critically account for and contextualize these changes and continuities in the circuits of capital, culture and technology? My answer would be to offer an in-depth study of the 'next-gen Triple-A console game' by approaching it as a cultural commodity. By focusing on the Triple-A game published during the so called 'next-gen' era, the scope of this book accounts for a limited, but very visible part of contemporary game culture: the biggest blockbusters. The argumentation will be confined to dominant trends, to the most played and most talked about game franchises, asking: **What is the political-economic specificity of the seventh-generation Triple-A console game in its commodity form?** By default this means that social games, casual games, indie games, serious and educational games, will not get the attention they undoubtedly deserve. This is a deliberate choice. Even though new and exciting commodity forms and hardware platforms have emerged over the last decade, the Triple-A commodity form is well-known and incessantly played, but at the same time it lacks the critical and scholarly engagement that comes with its high-profile status. This book sets out to provide the analytical and conceptual tools to at least facilitate a critical debate. I will offer a conceptual toolbox, that is, a set of critical notions, concepts and taxonomies, which enable a reflection on the current status of the cultural production and circulation of next-gen Triple-A games.

My goal is to unpack the Triple-A commodity form by investigating how the blockbuster game is institutionally embedded, how game software is integrated with game hardware and how the commodity form is at the same time culturally defined and shaped both by consumer and industry practices. To grasp the complex interplay among global game culture, game technology and the game industry, I will primarily draw on political economic theory. This critical approach is vital to better understand issues of power, control and the concentration of capital and how such issues mutually constitute the Triple-A commodity form. My main aim is to contribute to the understanding of console games by offering a study of how the Triple-A game works as a product for hardware platform owners, game publishers and gamers.

The opening chapter will offer the three focal points of my analysis—software, hardware and industry—and discuss how these aspects map to three corresponding issues at the core of political economic theory. In addition, I will further discuss to what extent my approach aids in an understanding of contemporary game culture and introduce my

4 The game in question is the first-person shooter next-gen Triple-A game *Call of Duty: Black Ops* that on November 9, 2010, “surpassed the \$1 billion mark in worldwide sales in just about 42 days from its launch” (Raman, 2010).

methodological apparatus. Chapters 2 and 3 take the *Call of Duty* franchise as a paradigm case and investigate the anatomy of the Triple-A commodity form. The publishing strategy of blockbusters in the next-gen era is neither fully disc-based, nor is it fully online. The hybridity of the next-gen cycle invites questions as to the specificity of this cycle vis-à-vis previous hardware cycles as well publishing strategies of non-software based cultural commodities as movies and TV series. Gamers and scholars tend to shy away from movie/game comparisons when discussing the digital game's formal properties. My interest is political economic, not formal. I am interested to see whether or not there are institutional continuities between well-theorized cultural artifacts such as the movie blockbuster, the bestseller book, TV hit series and the Triple-A game.

The brief description of the publishing strategies underlying the five blockbusters introduced by Microsoft's Don Matrick already show a set of dominant principles. In general terms, the consumption of a next-gen Triple-A title starts with buying a title (investing money), progressing in the game (investing time), followed by buying additional content, buying the inevitable sequel, buying additional material, and so on and so forth. In the second and third chapter I will theorize this publishing strategy and relate it to the commodity form, asking: Does the networked mode of circulation alter our understanding of the Triple-A commodity form? And if so, how to account for changing techno-economic as well as cultural aspects of the console game during the transition from a physical to a hybrid commodity type?

Chapters 4 and 5 survey the conditions under which Triple-A games come into being and relate the hybrid distribution logic to the institutional lay-out of the game industry. The notion of one dominant commodity type and a corresponding publishing logic seems to suggest that a small number of industrial actors is able to shape the production and circulation of blockbuster games. As I am interested in issues of power I will first study the institutional geography of the Triple-A market segment and investigate how platform owners, retailers, game publishers, and game development studio are related. The recognition of a duopoly of next-gen platform owners—Microsoft and Sony—and a small number of Triple-A game publishers point towards the concentration of ownership and capital. This invites questions as to how corporate contexts shape the Triple-A game commodity form. Moreover, given wider industry trends such as the outsourcing of cultural production and the integration of game hardware and software, an institutional analysis should encompass both a historical and comparative perspective in order to position the Triple-A segment within the information economy.

The console game's platform dependent nature invites questions concerning the technological and economic properties of both game hardware and the game industry.

Chapters 6 and 7 tie together issues of platform ownership and the high capital investments into proprietary technology and intellectual property to the Triple-A game's commodity form, asking: How do platform owners and game publishers leverage intellectual property rights and perpetual innovation, both forms of high capital, as a form of control? In terms of power, the Triple-A commodity form is not only shaped during production, but because of the shift towards digital distribution it seems prudent to question the rationalized mode of circulation of cultural commodities.

The eight and final chapter will return to the commodity asking: What are the implications of the fact that today's ludic expressions take place within proprietary and corporate contexts? And, what does this mean for the Triple-A commodity form? What the five Xbox 360 blockbuster titles have in common is emblematic for a particular publishing logic. Taken together they show that a new hardware cycle not only offers bigger games and all kinds of innovative game mechanics, but also paves the way for new business models. I will argue that the focus on the Triple-A in its commodity form draws attention to a standardized, capital-intensive, and highly rationalized modality of the production and circulation of blockbuster titles. The biggest blockbusters seem bigger than ever before.

The rise of the hybrid console cycle demonstrates the resilience of a capital-intensive, for-profit modality of cultural production mixing a twentieth century investment logic with twenty-first century technological affordances such as digital distribution. A focus on the Triple-A game as a product, then, is an example of how cultural commodities are constantly repositioned and continuously altered during subsequent console cycles. In the end, the argument I propose not solely critiques the circuit of capitalism, but additionally seeks to analyze the Triple-A game as a techno-economic-cultural artifact. In the next chapter I will further position my approach and introduce the main object of study: The next-gen Triple-A console game.

Chapter 1 - Introduction

No matter which metric you use, playing digital games is increasingly becoming a mainstream activity. To play video games “has become the norm; to not play video games has become the exception” (Juul, 2010: 8). An argument often used by academics and game critics to drive this point home is the notion of the game industry’s continuous economic growth. For example, in the United States “from 2005 through 2009, the computer and video game industry achieved real annual growth of 10.6% per year” (Siwek, 2010: 2). Globally, the video game market is expected to grow from \$51.4 billion in 2008 “to \$73.5 billion in 2013, a 7.4 percent compound annual rate” (PricewaterhouseCoopers, 2009: 2). Given these upwards trends it is understandable that a large number of scholarly books, academic journal articles, and student papers discussing digital games start with acknowledging the economic validity of their object of study. The billions of dollars in annual revenue alone, the reasoning goes, conform that the game industry is worthy of scholarly attention.

A much smaller number of academics provide a follow up to these kinds of sweeping statements on the economic might of this transglobal business. As early (culture) industry critic Theodore Adorno said several decades ago of the then expanding movie and music industry: “The power of the cultural industry’s ideology is such that conformity has replaced consciousness” (1991: 104). The rising economic importance of the ‘interactive entertainment industry’ provides a somewhat narrow perspective on the importance of digital play. Such an uncritical economic perspective prevents a deeper understanding of a dominant industry logic which reflects a high level of corporate concentration, which thrives on the commodification of everyday digital play, which is particularly technology-driven and based on a continual mass marketing effort.

This book, then, is an effort to map out and reflect on the political economy of the game industry by critically engaging its business practices and business models. Yet, my argument will go beyond a broad overview of game development, publishing and consumption in general and will depart from the analysis and discussion of the game industry as a somewhat homogeneous whole. As game critic Tom Chatfield (2011: 30) observes “when viewed by sector rather than under the umbrella of global statistics, gaming reveals itself to be a rather more complicated and contradictory field than the overarching trends imply”. Instead, I will single out one of those contradictory as well as high-profile sectors within the wider game business in order to analyze the implications of the interaction among the circuits of

culture, technology and capital (cf. Kline et al., 2003). The aim of this book, then, is to deconstruct, theorize and analyze the development and circulation of Triple-A console games.

Therefore, I would argue that the Triple-A game should not only be economically defined, but should also be theorized as a cultural artifact that is mutually constituted by game technology. To be able to empirically ground an analysis of the triad of game hardware, software and corresponding industrial actors, I will confine my analysis to those games available for Microsoft's Xbox 360 and Sony's Playstation 3, which are published during the first half of the seventh generation console cycle (2005-2010).⁵ During these five years roughly 600 individual console titles—stand alone titles sold as packaged goods at retail—have been published on the Xbox 360.⁶ In addition to Triple-A games, the next-gen hardware platforms also offer, what I will call, networked arcade games, commonly referred to as Xbox Live Arcade and Playstation Network titles. Think of titles as *fIow* (2006), *Castle Crashers* (2008) and *Shadow Complex* (2009). Compared to Triple-A titles, these purely digitally distributed games have a very different set of formal, technological and economic properties and thus fall outside the scope of this book.

What, then, does a critical engagement with the next-gen Triple-A video game encompass? To paraphrase critical theorist Douglas Kellner (2002: 46), I will argue that to be able to grasp the intricacies of Triple-A game production and circulation, one has to acknowledge that game publishers and platform owners are organized “according to the logic of commodification and capital accumulation so that cultural production is profit- and market-oriented”. This means that in order to study Triple-A games from a political economic perspective they should be understood and theorized as cultural products, in addition to being 'just' games. The shift in emphasis I am suggesting is that economics is a cultural ordering mechanism; it establishes the logics of cultural production, circulation and even consumption. Yet, this material perspective is all too often excluded from discussions of culture and is a perspective that runs counter to the traditional scholarly approach to study digital play. Research approaches typical for the field of game studies tend to pre-dominantly feature either “player-centric” views, a “game-centric” view, or a combination of both (Juul, 2010: 53). One might suspect that specifically studying Triple-A games would be a game-centric perspective, which indeed is the case.

5 The so called 'next-gen' era started in 2005 whereas the second half started mid-2010 with the introduction of the Kinect natural user interface for the Xbox 360 and the Playstation 3's motion controller peripheral system called Move.

6 This count is based on the number of Xbox 360 games published in The Netherlands from launch (December 2005) up until the end of 2010. Published titles exclude add-ons, demo's and expansion packs and include physically distributed stand alone retail titles. Title count is based on the games listed at “Xbox 360-games”, <http://marketplace.xbox.com/nl-NL/Games/Xbox360Games>. Last visited February 2, 2011.

However, rather than discussing a games' formal qualities and textual properties—the ontological nature of games as rule-based artifacts (Eskelinen, 2001; Juul, 2005; Salen & Zimmerman, 2003)—I will theorize the Triple-A game as a cultural commodity. I will argue that understanding console games inherently means investigating game technology, media economics and the realization that the Triple-A game is always also a cultural product and therefore cannot be fully understood without acknowledging and unpacking its commodity form. It should be noted that my approach does neither replace the valuable work done during the formative years of the field of game studies (cf. Aarseth, 2001; Mäyrä, 2002; Copier & Raessens, 2003; Wardrip-Fruin & Harrigan, 2004), nor similar work done today for that matter (e.g. Harrigan & Wardrip-Fruin, 2009; Juul, 2010), but should be seen as a complementary critical point of view.

Acknowledging the commodity status of Triple-A games invites questions such as: To what extent do institutional properties define and shape the Triple-A game as a techno-economic-cultural artifact? How are these artifacts, as cultural commodities, mutually constituted—shaped and understood—by the complex and often contradictory interactions among consumers, critics and industrial actors? In other words, I will combine a macro, industrial perspective with a micro analysis of the Triple-A game in its commodity form. This approach resonates with Robin Mansell's understanding of the political economy of new media. Mansell (2004: 98) points out that for such an understanding it is key to pay “[...] attention to both the structures of institutions, power and production as well as the nature of cultural commodities, its form and meaning”. In order to structure my argument as well explicitly grounding it in political economic thought, I will follow Mansell's lead by tying together the two core theoretical concepts of spatialization and commodification.

The concept of spatialization corresponds to a macro-economic, institutional approach to study the Triple-A game, whereas the process of commodification concerns a micro-economic product approach. Both processes are explored in-depth by political economist Vincent Mosco in his seminal work on the political economy of communications (Mosco, 1996, 2009) and his approach lays the foundation of the argument of this book.⁷ Before fleshing out the core focus of this book, i.e. the next-gen Triple-A console game, I will briefly unpack the two overlapping theoretical approaches towards the study of the Triple-A game. In addition, the next section will introduce the notion of the console game's 'techno-economic logic', which

7 Mosco (2009: 2) identifies a third process at the core of a political economic understanding of the media. The process of structuration signals “creating social relations, mainly those organized around social class, gender, and race”. As the main focus of this book is to contextualize, deconstruct and critique the Triple-A game as a cultural commodity, questions regarding the process of structuration and of unequal access to blockbuster games fall outside the scope of this book.

complements the processes of commodification and spatialization as the third approach structuring my argument. The notion of a techno-economic logic signals the Triple-A game's medium specificity and draws attention to the fact that a Triple-A console game is platform dependent. Apart from being a cultural product developed and published by transglobal for-profit game publishers, the dual logic has profound implications for the blockbuster game's political economy, and thus for its commodity form.

1.1 Commodification, techno-economics and spatialization

The three theoretical concepts structuring my critical approach towards the Triple-A commodity form break down into 1) the process of commodification, 2) the console game's techno-economic logic which accounts for the structuring effects of cyclically upgraded hardware platforms, and 3) the process of spatialization. Let me start where Karl Marx started his efforts to offer the theoretical foundations of the capitalist mode of production. A commodity, Marx ([1867],1999) points out, comes into being through the process of commodification, that is “by turning use values into exchange values, or transforming products whose value is determined by their ability to meet individual and social needs into products whose value is set by their market price” (Mosco, 2009: 132). Every single Triple-A game is brought about by a team of game developers, who, as waged laborers create a marketable product. Similar to other sectors in the media industries, industrial actors in the Triple-A publishing ecology aim at generating surplus value—generating a profit. Taken together, these somewhat abstract notions of value and, more importantly, the processes they reflect, have profound ramifications for the production and circulation of culture, as we will see throughout this book.⁸

One typical approach to explore the implications of the process of commodification concerns the ideological content of cultural commodities. Numerous critical theorists, political economists and scholars from the field of cultural studies have concerned themselves, albeit from fundamentally different theoretical and methodological perspectives, with media content. For example, the blockbuster Massive Multiplayer Online Roleplaying Game (MMORPG) PC game *World of Warcraft* (2004) can be read as “an allegory of contemporary real-world geopolitics” (Kontour, 2009; cf. Kücklich, 2009). Scott Rettberg (2008: 20-21) offers a similar reading of *World of Warcraft* as a “capitalist fairytale”, yet he contends that the form and structure of MMORPGs, classical arcade games and console games are largely determined by a game publisher having in mind the goal of successful and reliable surplus value extraction. Moreover, console games are either designed to be extensively replayed or played through and mastered “just in time for the release of the next game in the series” (Rettberg, 2008: 21).

More so than question how meaning is derived or negotiated from playing games, the focus of this book concerns the extent to which the process of commodification helps define

8 This does not make console games special in any way but rather consistent with the capitalist mode of cultural production.

the Triple-A game's commodity *form*. Whether or not Triple-A game franchises such as *Call of Duty*, *Halo* (2001 -), or *Medal of Honor* (1999 -), could be read as imperialist, neoconservative, neoliberal or militarized ludic fantasies, and to what extent a capitalist ideology permeates the design of these franchises, is a question more than worthy of study, but falls outside the scope of this book.⁹ In other words, the process of commodification gives us an approach to study *what kind* of Triple-A games are made, *under what conditions* and *how* they are circulated.

Particularly helpful to explore the capitalist mode of cultural production is the work of the Australian sociologist Bill Ryan (1991), who argues that the process of commodification leads to the standardization and codification of cultural production and the rationalization of circulation. To counter or exempt the risks associated with cultural production, managers of creative labor typically oscillate between the need for creativity, freshness and originality versus the need for predictability, continuity and control. Ryan builds on Adorno's Culture Industry thesis by a thorough investigation of the sociology of cultural production and conceptualizes “formatting” as a pervasive system of creative control:

By transforming the production of originality into a process governed by company-advocated rules, formatting serves to rationalise the otherwise arbitrary and idiosyncratic play of imaginative creativity and routinely steers artists towards repetition of the particular cultural forms in which companies have invested (ibid: 178).

Because console game development is such a capital-intensive mode of cultural production, if not the most capital-intensive instance within the game industry, the Triple-A commodity form is rather homogenous. The notion of formatting, then, is useful to explain why the Triple-A commodity form is standardized and formulaic: “Cultural goods produced under the formatting system reveal a marked tendency towards typicality and repetition” (Ryan, 1991: 184). What sets the Triple-A game apart from other cultural goods is that the strategy of formatting not only encompasses managerial strategies and a number of textual, socio-economic and cultural properties but is also afforded and constrained by (game) technology.

In the case of the console game, the process of commodification leads to a specific logic, what I will henceforth call 'techno-economic logic'. This double logic breaks down into two complementary institutional strategies. On the one hand scarcity needs to be artificially increased to be able to generate exchange value. By leveraging a strict intellectual property rights regime, game publishers and platform owners Microsoft and Sony are able to control

9 While cultural studies scholars rightfully stress an individual's agency and the inherent pleasures associated with the ritual of consumption, I would emphasize that a media consumer's agency is mutually constituted by the structural and processual power of the cultural industries (cf. Hagen and Wasko, 2000; Meehan, 2005).

the means of cultural production and circulation. Enabling these owners is an intricate web of physical and legal protection schemes (Festinger 2005; Oosterbaan, 2011). Both hardware platforms (game consoles) and software platforms (the closed-off software code of firmware, operating systems and source codes) have a proprietary status. This allows platform owners to operate a business model in which a console game is positioned to generate surplus value but is also always tied to one brand of hardware, which is generally sold at a loss.

Next to mechanisms of control, there are strategies specifically aimed at generating surplus value. As Ryan's definition of formatting suggests, there is a tendency to achieve repetitive consumption, which in the game industry is operationalized through either the promotion of technological or psychological obsolescence (Slade, 2006). First, hardware platforms are constantly updated via hardware revisions as well as software upgrades of a platform's firmware and operating system. Second, every single next-gen Triple-A game, in order to be financially successful for a game publisher, needs to be serialized. As such, the next-gen Triple-A game is characterized by the commitment of game publishers and platform owners to technological and economic continuity and giving the game's commodity form its predictable and repetitive character. That said, the perpetual innovation of both proprietary hardware platforms and Triple-A software is anything but a top-down process but should be seen as being embedded in a "permanent upgrade culture" (Dovey and Kennedy, 2006).

Bound with the process of commodification and the console game's techno-economic logic is the process of "spatialization". The latter process concerns questions of ownership and power, and is best understood as "the institutional extension of corporate power in the communication industry" (Mosco, 2009: 158). It is first and foremost a macro-economic perspective as it maps the cultural industries' tendency to cluster capital, for example through takeovers, alliances, agreements, mergers and acquisitions. The increasing economic viability of console game development signaled a shift from a small cottage industry of hobbyists, hackers and digital tinkerers towards a billion dollar commercial enterprise led by both 'old' media moguls as Disney, Time Warner, Viacom and Vivendi Universal, those who successfully survived the dotcom era, as well as various new start-ups (Kerr, 2006).

The issue of ownership, then, corresponds with a principal political economic concern, that of the concentration of capital and thus of power. Typically, political economists distinguish between two complementary ways in which ownership is structured (or, how the big get bigger); to benefit from economies of scope there are the 'big companies' diversifying (the process known as horizontal integration or conglomeration), and, second, the big

controlling more (or entire) parts of the process of production and circulation (vertical integration).¹⁰ Similar to the process of commodification being mutually constituted by the Triple-A game's institutional techno-economic logic of perpetual innovation of proprietary hardware and software, the process of spatialization indicates a regime of access and control based on the ability to initiate a capital-intensive mode of cultural production and effectively control commodity circulation. By doing so, competition is effectively stifled and this led to the general agreement among political economists that the intensification of the process of corporate concentration continues to have a serious effect on, among other issues, cultural diversity (Bagdikian, 2004; McChesney, 2000; Meehan, 2005).

Steering away from a form of economic reductionism, it is prudent to note that commodity production takes place within capitalist social formations, thereby stressing the mutually determined structure—'the setting of limits'—of social power. These limits, the access to and control over the means of cultural production are "determined by the specific economic characteristics of the sector and by its direct functional interrelationship with the wider system of material production" (Garnham, 1990: 14). Notwithstanding the question of textual interpretation and appropriation by users, this "determines in ways to be analyzed, the type and range of symbolic forms circulated" (*ibid.*). The key point here is that contemporary capitalist cultural production and circulation is rife with contradictions and should hence be seen as a contested field.

First of all, whereas game publishers and platform owners push for the standardization of hardware platforms and software formats, they enable users to tailor their game experiences to their own needs via various participatory practices (Raessens, 2005; Sihvonen, 2011). The malleable quality of games, then, creates considerable tension between the copyright holder, game publishers owning a Triple-A game's source code, and those who derive pleasure from going beyond 'casual consumption' (Newman, 2008; Nieborg, 2005a; Postigo, 2007, 2008). Thus, rather than free-for-all mass customization of games or an open source approach to game publishing, the approach towards player production is one of selective diversity as the parameters for non-profit console game production by users are

10 For completeness sake, there is also the process of diagonal or lateral expansion "when firms diversify into new business areas" (Doyle, 2002: 5).

seriously constrained through both technical and judicial protocols (Sotamaa, 2010).¹¹

Second, the player-centric view, for instance how a player negotiates the meaning of a Triple-A game, is a question purposely left open in this book, if only for the recognition that this perspective is not best understood through the lens of political economy. As Mia Consalvo observes in her study on cheating in games: “[...] gameplay doesn't exist in a vacuum, nor do game developers or publishers exert the only forms of control over how to play, understand or enjoy a game.” (2007: 177, cf. Kücklich, 2007; Sotamaa, 2009). Instead, games and gameplay are shaped, as René Glas (2010) concludes in his in-depth study of *World of Warcraft*, by the interplay between various stakeholders who negotiate issues of control, agency and ownership.

My approach, then, should not be seen as 'a grand theory of the game industry' or as the definitive political economy of the game industry, which would account for all that is contemporary digital play. Instead, I seek to critically discuss the operationalization of power through capital and copyright, as well as providing an overview of the economic principles underlying the production and circulation of Triple-A games. I will argue that the Triple-A game is a highly standardized techno-economic-cultural artifact. Therefore, I will discuss the structural and procedural issues of power by analyzing the institutional properties of the cultural game industry. This means examining the concentrated nature of industrial ownership and investigating how institutional characteristics shape the commodity form.

The next section sets the focus of the book by introducing the three units of analysis which guide the argument; that of the 'Triple-A game', the 'next-gen console cycle' and the 'cultural game industry'. These focal points are tied to the theoretical perspectives underlying the political economic approach. I will start with the software perspective—the Triple-A game—which maps to the process of commodification. Second, the level of hardware will be discussed which concerns the console game's techno-economic logic. And third, the process of spatialization aids in investigating the cultural game industry, as it is primarily an institutional perspective.

11 To be sure, there are countless non-profit and/or free games, there are just no free Triple-A games. The holders of intellectual property face a problem of losing their rights if they do not actively enforce them, consider the practice of “trademark dilution” (cf. Oosterbaan, 2011). Game publishers cannot attract capital for large scale projects if they are not expected to return a profit. This means that companies are forced into a binary situation: if they want to cover costs, they need to protect their intellectual property. If, on the other hand, they want to give games away or decide not to enforce their rights, they are free to do so but will surely have difficulty recovering costs.

1.2 Focus: Software, hardware and industry

The three levels of analysis in this book are best described as software, hardware and industry and taken together they are encapsulated in the Triple-A commodity form. Henceforth, the next-gen Triple-A console game is understood to be a platform dependent, heavily marketed, physically distributed 'flagpole title', published by one of the few transnational for-profit game publishers. Let me break down this definition and start by positioning the Triple-A game as software.

In popular discourse there is no fixed definition what is or what is not a Triple-A game, other than a general notion of a big-budget title available for a console or the PC. Critics and gamers typically invoke the Triple-A status of a console game as a mark of quality. Bigger budgets, following such a line of reasoning, would mean better games and the games with the biggest development budgets and the most pervasive marketing campaigns are 'true' video game blockbusters. For game publishers, the next-gen Triple-A game falls into the category of 'packaged goods'; a stand-alone, disc-based title sold at retail outlets or via web stores. Game publisher Electronic Arts' CEO John Riccitiello describes the next-gen publishing logic as 'pay first, play later', whereas more recent commodity forms available for emerging hardware and software platforms are understood as 'play first, pay later', for example via micro-transactions, advertising, or not at all.¹²

Instead of a more popular understanding of the blockbuster form, I will draw on a political economic body of work and emphasize the console game's status as a product. This means that a game's price is the sole mechanism for allocation, as opposed to, for example, the sale of the audience commodity, which is common in the television industry (Fiske, 1987; Meyers, 2009; Miège, 1979; Smythe, 1977). In other words, a console game is a for-profit (market) production by design. The Triple-A game is consumer oriented and sold at premium prices versus games for businesses (e.g. training games), capital-extensive non-market projects (e.g. student projects), or free games (e.g. advergames). Especially compared against digitally distributed networked arcade titles developed by smaller, many times independent game studios, the production and circulation of Triple-A games is capital-intensive and depends on

12 The 'play first, pay later' concept is used by Riccitiello on several occasions. For example at the 2011 Goldman Sachs Technology and Internet Conference. Transcript available at: <http://investor.ea.com//eventdetail.cfm?EventID=92522>. Retrieved: February 20, 2011. The move toward 'paying later' is not only seems more attractive to consumers, but is, arguably, as much afforded by new technological innovations, such as digital distribution, as it is a reaction to the difficulty of upholding copyright in a networked ecology.

high upfront investment.

The concept of the Triple-A game in the context of this book, despite its qualitative connotation, does not equal a mark of quality and serves primarily an analytical purpose. Simply put, all disc-based games published for both next-gen consoles are considered Triple-A titles. It does not matter if a game 'bombs', breaks even, or if it is a true smash hit; in its commodity form, the Triple-A game is always positioned to be a hit, if only in its demographic niche.¹³ Arguably more so than in other cultural industry sectors, for example book or music publishing, the Triple-A game's hit-driven nature is a direct result of the capital intensive mode of next-gen game production and circulation. Overproduction of next-gen games is not an option for game publishers, thereby necessitating a blockbuster mentality, much like that of movie productions in Hollywood's post-classical era (Wasko, 2003).

The next-gen Triple-A game consists of various game genres dominated by a relatively limited number of mutually inclusive categories; action games, music games, shooters, sports games, race games, roleplaying games and a miscellaneous category of licensed games.¹⁴ My corpus is limited to a number of dominant game genres for the simple reason that it is impossible to familiarize myself with all genres published on next-gen platforms over the course of five years. The main genres which will be discussed are the music genre—the *Guitar Hero* (2005 - 2011) and *Rock Band* (2007 -) series—, the first person shooter genre—the *Battlefield* (2002 -) and *Call of Duty* series—, roleplaying games—*The Elder Scrolls IV: Oblivion* (2006) and *Dragon Age: Origins* (2009)—and action games as *Grand Theft Auto IV* and the *Assassin's Creed* (2007 -) franchise. This collection captures over half of all next-gen Triple-A games published for the Xbox 360 and Playstation 3.

For reasons I will go into in the next chapter, I will consider the next-gen incarnations of the *Call of Duty* series as emblematic for the Triple-A commodity form and draw extensively on them as a paradigm case. One popular genre that is notably absent from my main corpus is the sports genre, the stronghold of game publishing powerhouse Electronic Arts.¹⁵ This is not to say that sports games—such as the long running *Madden NFL* (1988 -) and *FIFA* (1993 -)

13 According to *Assassin's Creed* producer Jade Raymond: "To be one of those big blockbusters that's really profitable is very hard. You have to be in the top five" (Kohler, 2011).

14 Licensed games include movie-based titles, puzzle games and more casual 'family' titles. Because I will focus on the dominant trends in Triple-A game publishing, I derive these categories from the publishing strategy from major console game publishers Electronic Arts and Activision Blizzard. While textual genres, and this goes for game genres as well, are always fluid, I would say that these five genres have dominated the Xbox 360 and Playstation 3 Triple-A line-up until 2010; the advent of the second half of the next-gen cycle.

15 Game publisher Take-Two Interactive Software is a competitor to Electronic Arts mainly in the genre of American sports (baseball, basketball and ice hockey), Konami Corporation competes in the soccer genre with the *Pro Evolution Soccer* (2001 -) franchise, and THQ competes with their fighting franchises *WWE Smackdown* (2000 -) and *UFC Undisputed* (2009 -).

series—are in any way less relevant. On the contrary, Electronic Arts is thoroughly overhauling the economic foundations of the genre and during the seventh console cycle sports games have become a test bed for new and often untested business models altering the Triple-A commodity form.¹⁶ However, because of my unfamiliarity with the genre as well as the current innovations, a deep investigation into the political economy of the sports genre is something to expand upon in further research.

Hardware: The console cycle

What sets a digital game apart from a song, an e-book or a movie, is a game's platform-dependent nature. In comparison, the digitization of music, particularly the advent of the MP3 software format coupled with online distribution systems, ushered in an era where music is easily shared across hardware platforms such as portable media players (Leyshon, 2001).¹⁷ Once captured on a computer, music can be easily manipulated and redistributed without fundamentally altering a song's textual properties. Conversely, a console game is anything but an interoperable software format and is ultimately shaped by a computational platform defining the technical and economic properties of the Triple-A commodity form. This 'techno-economic logic' means that the software of, for example, the Xbox 360 edition of *Guitar Hero II* (2007), cannot be run on any other platform than the Xbox 360. Let me explore this logic more in-depth to emphasize how the Triple-A commodity form is integrated with the dedicated console's hardware.¹⁸

On the one hand, Montfort & Bogost (2009: 145-150) point out that a console ties together the computational side of a platform (hardware), interfaces (game controllers and graphical user interfaces), and code (software). Taken together these elements influence, facilitate or constrain “particular forms of computational expression” (ibid: 3). On the other hand, from the introduction of the Magnavox Odyssey game console (1972) onwards, the Triple-A segment has been economically driven and technologically structured by a series of so

16 For example, sports titles are being integrated with existing online social networks, such as Facebook.com, or are integrated with dedicated Electronic Arts community websites, as happened with the Madden Online franchise which features, as EA Sports president Peter R. Moore explains: “[...] real NFL scheduling, live drafts, player transactions and real-time NFL stats, all manageable via the console, a web browser, or even an Apple mobile app” (“Electronic Arts F1Q10 (Qtr End 6/30/09) Earnings Call Transcript”, 2009).

17 That said, the advent of streaming music services (e.g. Spotify and Amazon's Cloud Player) and proprietary software platforms (e.g. Apple's iTunes service) are examples to 'put the genie back in the bottle' via a mixture of digital rights management systems and making listening to music dependent on (proprietary) applications and delivery platforms.

18 Considering the history of television, film or videocassette and the decades it took to arrive at hardware and software standards, one might argue that the current stage of competing hardware platforms is a temporary phase and that there someday might be one standard for dedicated game consoles.

called hardware or 'console cycles'.¹⁹ The video game industry “focuses as much on the future as on the present” and furthers itself through technological advancement (Brookey, 2010: 110). At the technological heart of this permanent upgrade culture is Gordon E. Moore's well known Law stating that the computational and storage capacities of computational components exponentially increase every eighteen months (Dovey & Kennedy, 2006: 52-53). As a result of the cyclical development of console hardware, critics, consumers and industrial actors have instilled a forward-looking ethos. This “state of perpetual anticipation”, as suggested by Brookey (2010) and many others studying the political economy of video games (e.g. Kerr, 2006, Kline et al., 2003) is driven, among other things, by the investments and for-profit agenda of institutional actors, and it is present in every fiber of video game culture.

The focus of this book is on Triple-A games published for the seventh generation dedicated game consoles. The seventh cycle started in 2005 with the launch of the Xbox 360, followed by the 2006 launch of the Playstation 3, and is believed to last at least ten years before a new console cycle becomes dominant, if any.²⁰ Compared against the previous cycle, what defines the next-gen cycle is the networked nature of both devices together with a leap in storage and computational capabilities. One way to read this book is as a history of the first part of the seventh cycle. The PC and the Nintendo Wii (2006), and their wide range of available games will be used as secondary case studies to compare and contrast the different institutional approaches towards cultural production in the game industry as a whole. The PC, for example, is a non-proprietary hardware platform giving way to a much wider range of commodity forms as well as to non-commodified modes of digital play. The Nintendo Wii, although it is a dedicated console launched in 2006, is neither a high-definition device nor do Wii games rely on networked technologies to the same extent as the next-gen devices. As we will see later, this has profound implications for the differences between next-gen Triple-A commodity form and blockbuster games published for the Wii.

For both analytical and practical reasons, the hugely successful and economically viable hardware platforms of dedicated handheld consoles (the Nintendo DS, DSi, 3DS and Sony's Playstation Portable) will not be discussed in this book as they constitute a political economy of their own, begging interesting but different questions regarding the concentration of ownership and the commodification of content. Also, the situatedness—the everyday

19 The Magnavox Odyssey is widely considered as the first dedicated game console. Designed by the American inventor Ralph Baer, the console offered innovations such as cartridges and various mode of controller based input (Herman, 2008).

20 Shane Kim, corporate vice president for strategy and business development at Microsoft's game division, stated in an interview: “We firmly believe that the Xbox 360 has a life cycle through 2015 (10 years after the launch)” (Takahashi, 2009b).

practices of play—of dedicated handheld consoles differs considerably in demographic, economic, and locative terms (e.g. Jari et al., 2005). That said, the forthcoming analysis of the Triple-A commodity form and its political economy should be able to serve as both a theoretical and structural blueprint to study similar cultural commodities such as games published for handheld consoles, smartphones, and tablets.

One of the main contributions of my analysis therefore is its narrow focus on the next-gen console game. The added heuristic value derives from doing so during a particularly revealing transitional moment in technology and cultural practice—the shift to online distribution of content packs and hybrid commodity forms—during which we can see an adaptation process.

Traditionally, scholarly attention has tilted towards the PC market segment, while relatively little attention has been paid to both dedicated consoles and handheld consoles, or mobile phones for that matter. The PC-centric MMO genre and virtual worlds such as *Second Life* (2003), *EverQuest* (1999) and *World of Warcraft* have seen the brunt of academic interest in, arguably, a disproportionate share of academic monographs (e.g. Bainbridge, 2010; Boellstorff, 2008, Castronova, 2005, 2007; Copier, 2007; Glas 2010; Humphreys, 2005; Lastowka, 2010; Ludlow & Wallace, 2007; Malaby, 2009; Nardi, 2010; Taylor, 2006), edited volumes (e.g. Balkin & Noveck, 2006; Corneliussen & Rettberg, 2008) and dedicated journals (e.g. *Journal of Virtual Worlds Research*). Again, this is not to downplay or trivialize such research efforts and the insightful work done regarding digital play. It is to note that console games have received less coherent and dedicated attention. As Laurie Taylor (2007) argues, this is partially due to the fact that consoles are less easily accessible in a research context; researchers need, for example, an expensive console and TV setup. In addition, in the decades of non-networked consoles, video games featured mostly single player games, which have raised different socio-cultural questions, in relation to online multiplayer games. This is not to say that no attention has been paid to console games at all. Journalists have written many platform-focused books, such as on the Xbox (Takahashi, 2002), the Xbox 360 (Takahashi, 2006), and the company culture of hardware manufacturers as Sony (Nathan, 1999; Asakura, 2000) and Nintendo (Herz, 1999; Inoue, 2010; Sheff, 1999). I am indebted to many of these sources in order to provide a comparative perspective, to ground my argument historically and to provide some valuable insights into the machinations of often secretive multinationals.

The console game's platform dependent nature enforces a, one might say, platform specific modality of production and circulation (Montfort & Bogost, 2009). How, then, to approach such a heterogeneous entity as the game industry and how to locate the institutional position of the industrial actors associated with the production and circulation of Triple-A

console games? To answer this question I need to introduce two macro-economic categories: the 'cultural game industry' as a sector within the wider cultural industries and the 'Triple-A segment' as a segment within the cultural game industry.

The cultural game industry

The game industry continues to grow, change and diversify in terms of hardware and software platforms, business models, formats and game genres.²¹ Considering the pluralist techno-economic nature of the PC segment, combined with the political economic continuities of the processes of spatialization and commodification, the singular notion of 'the' game industry is not specific enough to gain a deeper understanding of the Triple-A commodity form. The dedicated game console is much less diverse in terms of demographics, commodity forms, and formats. Or vice-versa, one could say that the Xbox 360 and Playstation 3 are primarily dedicated to the Triple-A commodity form.

Even though, over the last decades, the cultural industries have seen a push towards cross-industry ownership structures, the Triple-A segment should be seen as a distinct branch within the wider cultural game industry because it sports its own techno-economic logic—the perpetual innovative nature of proprietary game hardware and software design—as well as socio-cultural practices and particularities. The notion of the 'cultural game industry' is used to indicate a continuity between the game industry and existing conceptualizations of the cultural industries as a whole (Bustamente, 2004; Miège, 1989). Because the cultural game industry's principal institutional actors primarily deal “with the industrial production and circulation of texts”, it is considered to be an important sector within the “core cultural industries” (Hesmondhalgh, 2007: 12). The formation of the cultural game industry as it exists today is the result of decades of technological innovations, ever evolving media practices and the continuation of protective legal schemes, leading Hesmondhalgh to conclude: "The digital game industry, then, is a significant new entrant in the cultural industries sector and digital games are an interesting and important cultural form. But they do not represent a significant shift in the prevailing structures and organizational forms of cultural industries generally" (2007: 246). I concur with this view, as does Aphra Kerr (2006: 44-47) in her reading of the political economy of the game industry. Both scholars argue that the game industry is deeply

21 For example, the PC market segment consists of stand-alone Triple-A games very much similar to those published on next-gen consoles. Among other categories there are “newsgames” (Bogost et al., 2010), serious, persuasive or advergaming (Bogost, 2007; Ederly & Mollick, 2009; Nieborg, 2006b), subscription based or free-to-play Massive Multiplayer Online games, browser based casual games or newly emerging meta-genres such as so called “social games” played on social network sites.

entrenched in existing institutional frameworks and practices and that its principal industrial actors draw on strategies familiar to other industry sectors.

How should the institutional actors affiliated with the Triple-A segment be located geographically? The cultural game industry as a whole, including the Triple-A segment, should be seen as “a hybrid encompassing a mixture of Japanese and American businesses and (more importantly) cultures to a degree unseen in other media industries, especially in regard to US popular culture” (Consalvo, 2006: 120). In his insightful political economic exposé of the Korean game industry, Dal Yong Jin (2010) points towards the successful fusing of global markets and transnational companies with local content in the console and PC segment. That said, the next-gen Triple-A commodity form is, I would argue, primarily dominant in Western markets. Compared to the European, North American and Japanese market, the dedicated console is less popular in countries such as China (Cao and Downing, 2008; Walraven, 2009) and South-Korea (Chee, 2006; Stewart and Choi, 2003). Instead, in these emerging gaming markets, the PC is the dominant gaming platform. Therefore, different commodity forms are dominant, such as advertising supported free-to-play games, and microtransactions or subscription based models. Even though internationalization has been one of the key developments in the cultural industries as a whole (Bustamente, 2004; Hesmondhalgh, 2007), my perspective will be, also because of purely pragmatic reasons, unambiguously ethnocentric, in focusing on the North-American and European production, circulation and consumption of Triple-A games.

The process of spatialization encompasses not only the convergence of industries and markets, but also blurs the boundaries between technologies, genres and audiences. These many instances of convergence are intensifying and taken together they represent a “paradigm shift”, “a move from medium-specific content toward content that flows across multiple media channels” (Jenkins, 2006: 243).²² In other words, afforded by digitization and the diversification of hardware platforms and driven by institutional convergence, we are witnessing a move towards textual divergence (Bolin, 2007; Ip, 2008). A significant number of games are part of what Jenkins labels “transmedia franchises”. For example, a narrative, theme or brand may originate in a book and transfer to film and games (e.g. *Lord of The Rings*), from games to books and film (e.g. *Halo*) or from games to television, as in the case of the *Viva Piñata* (2006 -) franchise (cf. Aarseth, 2006; Brookey, 2010; Thompson, 2007). As such, the paradigm shift Jenkins describes points towards the blurring of boundaries between different

22 The strategy of textual diversification is anything but a recent occurrence as shown by the research of Eileen Meehan on the “commercial intertext” of *The Batman* (1991).

sectors of the cultural industries and thereby challenging the understanding of industry sectors as neatly defined fiefdoms.

However, even though the content of a Triple-A game might be affected because of transmedia publishing strategies, I would argue that the Triple-A commodity form is primarily shaped by different processes. Transmedia storytelling involves a story unfolding “across media platforms, with each new text making a distinctive and valuable contribution to the whole” (Jenkins, 2006: 95-96) thereby determining the content of games. At the same time transmedia publishing arguably leads to an increasingly rationalized mode of cultural production and strengthens rather than lessens the medium-specificity of console games. Thus, as Kline et al. (2003: 23) note, the effects of new technologies allowing for the logic of convergence “must be seen in their intersection with the continuing, and indeed intensifying, force of a global market economy predicated on the priorities of profit, commodification, consumerism, and managerial strategy”. In the end, both the Triple-A commodity form and the logic of convergence are driven by the same processes, those of commodification and spatialization.

To emphasize instances of institutional continuity and change I will draw extensively on research on the cultural industries in general (Miège, 1989; Ryan, 1991), as well as more specific work done on the political economy of television (Meehan, 2005; Moran, 2009; Van Dijck, 2007, Williams, 1974[2005]) and the movie industries (Prindle, 1993; Wasko, 2003; 2005). The Triple-A segment in particular compares well with the hit-driven nature of the movie industry: “all three share high production and marketing costs, as well as a similar reliance on blockbusters” (Egenfeldt Nielsen et al., 2008: 17; cf. Rifkin, 2000: 199). Much like the well-known economic meta-genre of the post-classical Hollywood blockbuster (cf. Elsaesser, 1998, 2001; Cucco, 2009; Stringer, 2003), I will argue that the Triple-A game's mode of production and circulation can be characterized as capital intensive, highly rationalized and technology driven. If the so called “high concept” film, as film scholar Justin Wyatt argues, can be seen as “as a strain of contemporary American cinema whose style has a direct economic motive” (1994: 104), then the Triple-A game is best seen as a strain of contemporary transnational digital play whose cultural form is a direct result of its commodity form, having an economic motive as well.

This does not mean that the game business is a carbon copy of the movie or television business. The explicit comparisons with Hollywood blockbuster movies might invite criticism arguing that a game, considering its textual and techno-economic modalities, is nothing like a movie. That is very true. Yet, in a political economic sense there is considerable overlap in the extent to which cultural production, circulation and consumption are organized. Apart from

the many obvious formal distinctions between games and movies, there are a number of fascinating, underexplored and undertheorized political economic issues constituting the next-gen Triple-A video game. These issues are at the core of my argument. Having introduced the three core focal points of my argument and the three corresponding theoretical concepts, let me briefly position my approach towards the study of blockbuster games and argue why a political economic perspective on game software, hardware and industry contributes to a novel interpretation of the digital game.

1.3 A novel approach: Unpacking the Triple-A commodity

Unlike the consumption of linear cultural texts, such as reading a novel, gameplay tends to be both interactive and highly iterative. By nature, games as software are fluid and malleable; the renewable nature of play counts as one of the defining characteristics of games as interactive media (Aarseth, 1997). Yet, this book is not about the emergent properties of games as interactive texts, that is, the fact that one can seemingly interact with detailed game worlds, customize cars, and avatars—virtually everything which is rendered on the screen. Neither does the main argument of this book deal with that curious gift which games afford: play. Rather, this book goes beyond the idiosyncrasies of play, but also beyond a singular technological or economic definition of the digital game. Instead, I will theorize the next-gen blockbuster video game as a techno-economic-cultural artifact by investigating how Triple-A video games work as products and which purpose they serve for game publishers, platform holders (i.e. Microsoft and Sony), retailers and gamers. In short, I will focus on its commodity form.

Playing games, as Juul (2010) contends in the opening of this chapter, might not have been a mainstream activity for decades. Console cycle after console cycle the Triple-A game has dominated the cultural game industry. From the countless *Super Mario* games to the numerous installments within *The Sims* (2000 -) franchise, big—capital-intensive—blockbusters have defined what digital play has been all about. Yet, even though the Triple-A game reigned supreme since the early days of digital gaming, very little attention has been paid as to how the blockbuster game is institutionally embedded, how it is afforded and constrained by game hardware, and why game critics regularly invoke the notion of 'the inevitable sequel' when reviewing a Triple-A game. Or as critical theorist Shane Günster (2004: 238) observes: “The commodity form is nestled in all aspects of cultural experience, where it has acquired a curious sort of immunity from critical reflection”. Withstanding a number of valuable critical interventions by scholars in the field of game studies (Kerr, 2006; Kline et al, 2003; Dyer-Witheford & De Peuter, 2009; Dymek, 2010), in aggregate there is a high level of conformity when it comes to discussing the console game's commodity status.

To be able to theorize, critique and unpack the Triple-A commodity form and ground my argument both historically and institutionally, I introduced three overlapping theoretical perspectives in section 1.1. These perspectives will guide my comparative analysis of the Triple-A game's political economy and I would argue that the value and novelty of my approach stems as much from my focus on the Triple-A game's commodity form as my

theoretical apparatus. In other words, in this book I will draw on the three notions of commodification, spatialization and the console segment's techno-economic logic as elements mutually constituting the Triple-A commodity form. The various aspects constituting the console game's political economy are often studied in isolation, either focusing on the game's cultural form, the institutional characteristics of the game industry, or on the practices or effects of digital play.

Therefore, I contend that the combination of a micro and a macro perspective, of analyzing both the integrated nature of game hardware and software and the institutional actors developing and publishing Triple-A games, offers an additional perspective on the console game. A game publisher's goal of generating surplus value through the process of commodification is not so much the Triple-A segment's dominant model of material production, it is the sole underlying rationale characterizing all industrial actors. This is not to say that a Triple-A game's cultural form can only be understood through economics. Rather, I would argue that it is impossible to discuss the nature of playing games in the next-gen era without accounting for the cultural game industry's institutional logic which shapes its commodity form, format, delivery and, in the end, the very act and nature of digital play itself.²³ My perspective would allow for questions regarding the technological, economic *and* socio-cultural aspects of the blockbuster game.

Because of my specific focus on the next-gen era I am able to offer an in-depth analysis of a commodity form in transformation. As is every new console cycle, the next-gen era is a period of transition and as a result the next-gen commodity form is different from previous console cycles. Even though many game studies scholars are commonly careful in defining their object of research, addressing specific titles or genres, the underlying techno-economic framework from which these objects emerge is rarely discussed. However, a generic ahistorical approach towards the blockbuster commodity form prevents both a more precise breakdown of the power relations among the various industrial actors in the cultural game industry and thus how technological and institutional transformations affect the commodity form.

The transformation of culture into commodities leads to a particular codification of culture and the Triple-A game adheres to a particular logic of cultural production, circulation and consumption. It is a logic that is anything but set in stone, instead it is fluid and in constant flux. Hence, my approach analyzes the extent to which the Triple-A publishing logic exhibits, on the one hand, institutional continuities between hardware cycles, and on the other hand to

23 While the game industry's capitalist logic shapes the commodity form, this leaves open the question of how users consume, appropriate, modify or derive meaning from playing or using Triple-A games.

what extent the Triple-A publishing overlaps with similar strategies deployed in other sectors in the wider cultural industries. In the coming chapters I want to support the hypothesis that if there is one thing unique about the next-gen Triple-A commodity form then that would be the hybrid nature of a packaged good complemented with digitally distributed content. This particular publishing strategy demonstrates that the rules of play, quite literally, are structured by the game's commodity form. Television as a cultural form cannot be understood without accounting for its institutional and technological grounding; think of the use of cliffhangers in the last episode of a season (Kompare, 2005; Williams, 2005[1974]). Ultimately, a game's textual, technological and cultural form is shaped by the commodity form, operationalized through a set of formatting strategies such as the serialization of the biggest blockbusters.

In sum, my aim is to situate the commodity form within a wider material, historical and media comparative framework. The console game's blockbuster status does not solely reflect a sizable capital investment, but also draws attention to the Triple-A game as being part of a larger publishing arrangement. I would contend that a Triple-A game should not be considered as a single unit of analysis since it is always part of a game franchise. Rather than focusing on individual blockbuster titles, as is common in game studies, or unpacking its formal qualities, this book will consider the next-gen Triple-A game's political economy. By unpacking the commodity form I will map the cultural, technological and economic dimensions of the blockbuster game in order to analyze, comprehend, and criticize dominant patterns of thought, leading business practices and largely unquestioned business models.

1.4 A critical material approach to game studies

In this book I will follow a critical material approach to engage with issues of technology and innovation, cultural production and circulation. Mikolaj Dymek, in his doctoral dissertation on the political economy of the game industry, offers a similar approach when he articulates that taking a material perspective means “to focus on the physical mechanisms” of the console game, “instead of sign-signifier spaces, post-modern weak identity construction projects in digital media, or interpretative dimensions” (2010: 67). To do so, I will follow line of reasoning that is neither condemnatory, nor overly celebratory, but is above all critical of how corporate contexts and institutional forces shape the commodity form (Dyer-Witheford & De Peuter, 2009).

The use of the political economy approach in itself sets this study apart from the great majority of research on computer games. As game studies offers a new interdisciplinary field of study, my choice is to derive questions from the fields of critical political economy and critical theory but also to draw on media economics, innovations studies and, to a lesser extent, cultural studies. This pluralist mode of investigation corresponds with newly emerging approaches in the field of game studies also known as software studies and platform studies. Understanding Triple-A games, then, is as much an inquiry into players and games, technology (i.e. the console, the TV set, software engines) and innovation, as it is an economic discussion (Kerr, 2006; Kline et al., 2003; Montfort & Bogost, 2009; Nieborg & Hermes, 2008). Because of this book's explicit focus on the Triple-A game's commodity form, I will elaborate on the epistemological orientation of the political economic approach to media studies and game studies in order to ground my methodological apparatus and to point towards neighboring fields of study whose theoretical and methodological approaches benefit from the study of the next-gen blockbuster.

Influential political economists such as Nicholas Garnham (1990), Peter Golding and Graham Murdock (1996), and Vincent Mosco (1996, 2009), although each focusing on slightly different cases, single out a set of central qualities which together constitute a critical political economic approach. These qualities are succinctly summarized by Hesmondhalgh (2007) as being critical, normative, historical and holistic. As its name suggests, political economy is a critical approach which means that the dominant ideology of a profit-oriented capitalism is to be questioned at all times. Or, in the words of Robert McChesney (2007: 46): “The range of inquiry for a critical scholar is not bounded by the needs of those who rule society and benefit by the status quo, but by the range of what is determined to be socially possible”. I will argue

that the Triple-A commodity form is rooted in a complex and contradictory set of material conditions that are commonly perceived as natural or take-for-granted by scholars, game journalists and gamers alike.

Closely related to this prerequisite is the agreement among political economic scholars of the approach's normative dimension. Rooted in moral philosophy (Smith [1776],1970), universal themes such as equality, democracy, freedom and social justice take precedence over the a-political administrative analysis of media economics (Albarran, 2002; Doyle, 2002; Hoskins et al., 2004), management or business studies (Eisenmann, 2008; Gawer & Cusumano, 2002) or the profit and efficiency orientated line of questioning within innovation studies (Christensen, 2006; Rogers, 2003; Von Hippel, 1988; 2005).²⁴ The detailed studies on the issues of management and innovation in the cultural game industry offer valuable data, insights and a number of useful concepts and will thus be used to answer questions grounded in critical political economic thought.

Traditionally, the positivist models of neoclassic economics aimed at predicting economic systematics "without understanding the complexities of power, social structure, organizational behavior and cultural practice" (Mosco, 2009: 63). Political economists lament neoclassical economics' neglect of the historical, social, cultural and political dimension, as well as their predictive models lacking any moral philosophical underpinnings. Or in the words of Eileen Meehan (1999: 162): "Administrative scholars celebrate ideology, commodity, and reception; our job is to deconstruct, reveal, and critique". This book does not attempt to answer questions such as: 'How can the game industry become more profitable by serializing content?', or 'What is the best price point for selling downloadable content?'. Rather, micro-economic practices are theorized and conceptualized using both a macro-economic theoretical framework and a normative line of questioning. A more relevant question, from a critical point-of-view, would be: "What are the political economic implications of the emergence of digital distribution related business models for the cultural game industry?" Such a line or reasoning involves both micro-economic and macro-economic analysis and leads to a discussion of power, control, competition and ownership, and the cultural significance of the commodification of play.

Next to providing a normative and critical perspective, a political economic account is both holistic and historical, relating the political and economic dimension to social-cultural institutions and the practice of everyday life, interpreting current innovations from a historical

24 Recently, critical legal scholar Yochai Benkler (2006) one might say 'upgraded' Smith's moral philosophic arguments in his analysis of the networked public sphere and his work is a powerful reminder of what a non-commodified game culture might look like (cf. Coleman & Dyer-Witheford, 2007).

perspective. Contemporary game culture cannot be understood without accounting for “particular historical moments and specific institutional constellations” (Kline et al, 2003: 24). In other words, the game industry cannot be understood without an understanding of its rich history. This project has a similar historical dimension, even if its main focus is rather on contemporary game history and less on previous console cycles. As argued in the opening of this chapter, the next-gen Triple-A is part of an economy in transition, coming from a physical goods industry and slowly moving towards full digital distribution. Because this is a contemporary history, this book cannot benefit from the work done by fellow scholars who described the game industry's rich history (e.g. Glas, 2004; Kent, 2001; Whalen & Taylor, 2008; Wolf, 2008). On the other hand, the advent of the seventh-gen era marked the coming of age of the Internet as a research tool thereby opening up a wide pool of data, such as developer blogs, research reports, analyst reports and an unprecedented access to valuable work done by game journalists and critics.

Apart from a critical, normative and historical account, the political economic argument in this book is holistic in the sense that I position the game industry as part of the wider cultural industries and as “interrelated with the political, social and cultural life, rather than as a separate domain” (Hesmondhalgh, 2007: 33). The deliberate and explicit focus on the Triple-A game as a cultural commodity might invite questions as to whether there is a claim to essentialism—ignoring either the technological or socio-cultural aspects constituting the production, circulation and consumption of cultural commodities. Yet, the application of political economy to theorize digital play does not mean a primary focus on economics alone “we can think of economy dynamics as playing a central role in defining the key feature of the general environment within communicative activity takes place, but not as a complete explanation of the nature of that activity” (Golding & Murdock, 1996: 15). The somewhat uncommon application of critical political economy might invite the uninitiated—those unfamiliar with either blockbuster games or political economic theory—to sweep aside the general argument on the logic of the commodification of digital play by invoking notions such as conspiracy theories and economic determinism. I would invite those critics to consider the focus of this study: the technological, economic and socio-cultural conditions mutually constituting the production and circulation of Triple-A's games in their commodity form.

Methodology: approaches, sources and data collection

The guiding political economic concepts to theorize the commodity form—the processes of commodification and spatialization—constitute a complementary methodological apparatus.

Allow me to ground my methodological instrumentation as well as to discuss the challenges of engaging in a critical material analysis by outlining the tools, data and sources used during my research. In order to theorize the process of commodification I engaged in instrumental analysis and textual analysis. Instrumental analysis “traces the personal and business network within institutions” (Meehan, Mosco & Wasko, 1993: 112). The core unit of analysis in an instrumental approach is what Ryan (1991) calls the “project team” because the conditions of corporate cultural production are largely structured by the rationalization process of formatting. That is to say, there are a number of generic responses and managerial strategies deployed by industrial actors trying to deal with the inherent risks of cultural production. Think of the unpredictable nature of consumer behavior and the ongoing struggle of cultural (or creativity) versus managerial capital during cultural production.

Interviews with game developers, executives at game publishers, and marketing employees such as PR and brand managers are valuable sources to get a sense of their vision of the state of the industry and the implementation of the flow publishing logic. Therefore, between 2006 and 2009 I visited game studios in Canada, the United States, Sweden and the Netherlands where I conducted semi-structured and open interviews with developers and studio management to get a better grip on the intricacies of the formatting strategy.²⁵ Complementing my own data is a wealth of scholarly work on the material and immaterial labor in the cultural game industry.²⁶

For an academic, a significant methodological issue concerning the cultural game industry, or any sector within the wider cultural industries for that matter, is access to key industry personnel: “Access to crucial material remains one of the most onerous constraints of research; for example physical proximity to materials is a common problem” (Meehan, Mosco & Wasko, 1993: 113, cf. Ortner, 2009). In a world where information is power and publicity a currency, I soon found out that a PhD student has very little to offer to executives at game publishers or platform owners, other than the moral trope 'for science!'. Suffice to say, a critical theorist for that matter has even less bargaining power.²⁷ Ironically, access to game developers and studio management is less of a problem if you are a game journalist. Critics

25 Studio visits included trips to EA Montreal (Canada), Turbine Inc (U.S.), DICE (Sweden), and Guerilla games and W!Games located in my hometown of Amsterdam. The visit to DICE was paid for by Electronic Arts and included the informal agreement to report on the visit in a full page article for a Dutch newspaper.

26 Sources include: De Peuter & Dyer-Witheford, 2005; Deuze et al., 2007; Dyer-Witheford & De Peuter, 2009; Dymek, 2010; Gershenfeld et al., 2003; Janssen & Van Der Meer, 2010; Johns, 2006; O'Donnell, 2008; Pausch, 2004, Teipen, 2008.

27 As a Dutch brand manager told me upon explaining my project and requesting studio access: “We rather not have outsiders talk to developers. Developers are far too open about their vision and their plans and always say more than we want them to say”. Personal conversation November 20, 2007 with Warner Guinee, Dutch brandmanager for 2k Games responsible for, among other games, *Bioshock*.

writing for online outlets, magazines or newspapers are regularly invited to come to studios all over the world at the expense of game publishers. During lavish studio visits they are granted unprecedented access to developers, early game builds and various game (marketing) material (Nieborg, 2010).

Therefore, early on during my project I decided to take on the role as a game journalist in order to get access to the industry as well as to become a participant observer of the game industry's marketing apparatus.²⁸ During interviews, visits and conversations with industry professionals I always openly communicated my 'double role' as journalist/doctoral student. Writing for Dutch newspapers, magazines and a blog, I was able to get access to key industry personnel and interviewed them by phone, in studios and at industry events around the globe—the Tokyo Game Show and the Leipzig Game Convention—as well as during numerous press events in the Netherlands.²⁹

Next to an instrumental analysis, theorizing the process of commodification benefits from the textual analysis of blockbuster games. In this sense I follow Ryan (1991: 2) who argues for “the urgent development of a complimentary political economy of culture, which should eventually be connected to text-based analyses, and empirical studies of consumption”. Such a “realist approach” to political economy combines theory and practice and merges mutually constitutive “sensory observations” with “explanatory practices” (Mosco, 1995: 2). Similar to Robert Allen Brookey's (2010: 27) insightful study of the convergence of Hollywood film and the next-gen Triple-A game, I engaged in “rhetorical criticism”, a method which not so much makes “claims about the effects of rhetorical strategies” of game developers but anchor observations of Triple-A games in “specific contexts of production”.

To do so, over the course of my project I built an extensive library of Xbox 360 and Playstation 3 games and played through dozens of titles to study the structural and material properties of the Triple-A commodity form. I considered the *Call of Duty* and *Guitar Hero* franchises as paradigm cases and played all installments of both franchises, both online and offline, in online multiplayer and offline multiplayer settings.³⁰ Rather than solely focusing on a

28 Over the course of four years I published four articles for the newspaper nrc.next, twenty magazine articles for GMR magazine, 80 newspaper stories and game reviews for Dagblad De Pers, numerous blogposts at Bashers.nl, and a weekly column for two years at Amsterdam University magazine Folia, and a bi-monthly column at nrc.next.

29 Interviews with industry professionals at industry events in Leipzig and Tokyo (Epic Games' Mike Capps, EA Sport's Peter Moore, Red Octane's Kai Huang, Microsoft's Aaron Greenberg, and Valve Software's Gabe Newell and Doug Lombardi, Polyphony Digital's Kazunori Yamauchi, Ubisoft Toronto's Jade Raymond, Bungie's Jonty Barnes and Jay Weinland), phone interviews with Infinity Ward's Vince Zampella, Gearbox Software's Randy Pitchford, Playfish's Sebastien de Halleux and Neversoft's Alan Flores.

30 Suffice to say, I also played non-next-gen titles on the Nintendo Wii, the Nintendo DS, the iPhone, iPad, Facebook.com, the Windows PC and Apple's iMac.

Triple-A game's gameplay, game-rules and game-world (Aarseth, 2003), I paid special attention to such game specific properties as the implementation of DLC into the core game, the release and pricing strategies of DLC, and the nature (size, content) of additional material.

The process of spatialization favors an institutional analysis “tracing industry structures and their effects” (Meehan, Mosco & Wasko, 1993: 112) consisting of a study of the Triple-A segment's market structure and the cultural game industry's position among other cultural industries' sectors. As for the ownership structures in the cultural game industry I have engaged in, what media economists call “financial analysis”; “data derived from financial statements and the use of various types of financial ratios” (Albarran, 2004: 296). The key institutional actors in the Triple-A segment are publicly traded companies and as such they are mandated to file various reports with the Security and Exchange Commission (SEC). Companies such as Microsoft, Sony, Electronic Arts, Activision Blizzard, THQ, and Take-Two provide a wealth of publicly available financial data that greatly benefitted a financial analysis. For example, all companies offer annual reports on the investor sections of their respective websites. Second, these companies conduct quarterly calls open to a select number of institutional investors who are able to ask questions about a variety of subjects related to video game publishing. Third, game publishers regularly attend conferences hosted by financial services companies as UBS, Morgan Stanley and Goldman Sachs.

Apart from sharing accurate financial data and in some case breaking down the revenue gained from individual Triple-A games and even pieces of downloadable content, during all these events key individuals, such as a game publisher's chief executive and financial officers, provide in-depth overviews of their long-term strategies. Even though these often heavily scripted presentations are meant to convince (potential) shareholders and institutional clients of the viability of their investments and are uncritical and celebratory in nature, they provide a wealth of data and have been crucial for me to reconstruct and get to grips with the rationale underlying the next-gen publishing logic. For this book I analyzed all annual reports, prepared comments and transcripts of investor calls as well as transcripts of conference presentations from late 2004 until February 2011 from Electronic Arts and Activision Blizzard.³¹ To fill gaps in my knowledge and add a different perspective on financial data in executive's statements, over the course of this project I kept up-to-date with primary and secondary resources such as in-depth industry coverage by journalists and critics, and analysts at investor

31 When publicly available. Most reports can be downloaded at <http://investor.ea.com>, <http://investor.activision.com>, the SEC's EDGAR database: <http://www.sec.gov/edgar.shtml> and stock market blog Seeking Alpha (seekingalpha.com) which provides many quarterly call transcripts free of charge.

firms and industry lobby reports.³²

In the next chapter I will first start with an instrumental and textual analysis of the *Call of Duty* franchise. I will argue that the Triple-A game transformed from a stand alone, singular artifact into a perpetually extended, more open-ended commodity type.

32 Key journalistic sources have been EDGE Magazine, Game Developer Magazine, Gamasutra.com, The LA Times, The New York Times, The New Yorker, Venturebeat.com, and IndustryGamers.com. Analyst data is derived from, among others, Crandall & Sidak (2006), Merel & Smith (2010), Pachter & Woo (2005, 2009), and Siwek (2010).

Chapter 2 - Prolonging the magic

What strikes me as I am playing one of the next-gen iterations of the *Call of Duty* and *Guitar Hero* franchises, reading game news online, buying games in a store, or browsing through the “Marketplace” which is part of the Xbox 360's Xbox Live service, is that as a gamer you never seem to be finished. There is always more to explore. There seems to be always something (presumably) better—an upgraded, more advanced version of the game you bought or completed moments ago—just around the corner. To be a dedicated gamer today means to wait, as there is always the 'inevitable sequel': 'If you liked this game, just wait and see what the next iteration has in store for you', or something along the lines of: 'This game might not be perfect, but let's hope they fix these issues in the next version'. The promise of a sequel or a new episode has been a familiar one for consumers of popular culture, from the serialized fiction of Charles Dickens to the *Star Wars* movie blockbusters of George Lucas, the paradox of choice is that familiarity breeds liking: “On the whole people will rate the familiar things more positively than the unfamiliar ones” (Schwartz, 2007: 54).

Yet, what has become a distinctive technological as well as economic feature of the growing next-gen video game library is that before, or just after buying a new game, there is always the promise of additional digitally distributed material that ties directly into and thus extends the core artifact. There are patches, (content) packs, game modes and various other kinds of extra components or modules to prolong the magic—that is, until the sequel comes out and the entire process of anticipation, acquisition, and extended consumption starts all over again. In this sense, the next-gen Triple-A game never truly feels like it is finished; it is marketed by game publishers and positioned by critics as, what I will call, an *unfinished commodity*. Consuming a next-gen Triple-A game is as much a technological and economically defined experience, as it is an engagement with the rules of play. My interest in this chapter is to see how the magic works. Not so much to find out who is performing the trick and who is watching, but rather to lift the curtains just high enough to see how the magic trick itself is done and in what form it is then sold to consumers.

This chapter is guided by two main lines of inquiry. The first section 2.1 provides a comparative historical and comparative media perspective by discussing the hybrid nature of the Triple-A commodity form—starting as a physical, disc-based commodity which is complemented with digital extensions. Throughout this chapter I will draw on high profile next-gen Triple-A titles as *The Elder Scrolls IV: Oblivion* (2006), *Dragon Age: Origins* (2009) and

the *Call of Duty* series to illustrate the operationalization of the unfinished commodity form. The second order of business in this chapter is to approach the Triple-A commodity form as an economic genre, rather than a content genre. I will offer an anatomy of the next-gen Triple-A console game—a fundamental part of contemporary game culture and an object of much critical engagement by consumers, but also a rarely theorized artifact. The core of my argument is that the Triple-A game is neither simply a discrete cultural commodity, nor just a mere object of play, but is best understood as an incremental and seemingly infinite stream of renewable gaming experiences. Yet, most of all, the Triple-A game should be understood as fully functioning inside a capitalist framework hence tying into a specific production and circulation logic.

Similar to other cultural industry sectors, the business of selling Triple-A games is competitive and unpredictable and therefore a high risk endeavor. Ryan (1991) outlines a useful theoretical framework to critically engage with capitalist cultural commodity production in its corporate form. In order to counter the inherent risks of for-profit cultural production, game publishers aim to add a layer of predictability to the creative stage of game development. This rationalization strategy should be seen as a set of fixed cultural rules that are meant to channel and guide the unruly artistic practice of game production (i.e. idea origination, design, development et cetera). These so called “formatting strategies” are “the combination of structuring principles underlying the creative stage of production and its manifestations” (Ryan, 1991: 15). In this chapter I will argue that the Triple-A commodity form, in its next-gen incarnation, breaks down into two clearly discernible, complementary formatting strategies—branched serialization and franchising—both speaking to its unfinished nature.

In many ways, games are uniquely suited for the unfinished commodity status, unlike more ‘closed’ narrative-based texts such as books or movies. A film or television program may be unbundled or repackaged but remains essentially linear and fixed (Wasko, 2003; Kompare, 2005). Even though Triple-A games are undergoing a shift towards a flow like circulation logic—similar to comic books, soap operas or DVD boxes—the digital game is at the same time a distinctive cultural artifact. Not only is the Triple-A game bound to a proprietary platform, games as software are modular in design. As Lev Manovich (2001: 30) explains, a game as a new media object consists of “collections of discrete samples (pixels, polygons, voxels, characters, scripts)”. Additional game content such as maps, clothing for an avatar or entire episodes, can quite literally be plugged into the core game. Unlike the novel or movie, a Triple-A game's core mechanics can be significantly altered via a digitally distributed software

upgrade, patch or content pack, slightly changing a small in-game parameter, for example the availability of the number of bullets in a first-person shooter.

Typically, a Triple-A game is developed, published and marketed as a disc-based, discrete, physical good (“packaged good”), sold at retail. In between waiting for the inevitable sequel in the franchise and in order to extend the longevity of the Triple-A title, there are modules that add onto or tie into the core artifact. The development and publishing of these modules adheres to the, what I call, 'branched serialization' formatting strategy and breaks down into three complementary sub-strategies, all which are ways to extend the primarily physically distributed disc-based copy.³³ First, there always is more to buy. Additional material, such as new maps, songs, cars or unlocks can be digitally downloaded on next-gen consoles as so called paid-for downloadable content; by industry insiders often referred to as “PDLC”. The amount and nature of PDLC on sale for a particular title depends on the game genre and publisher. It is safe to say that the leading publishers (Electronic Arts and Activision Blizzard) aggressively pursue this strategy for all of their larger franchises (i.e. *Call of Duty*, *Battlefield*, *Guitar Hero*, and *Rock Band*).

The second category of branched serialization is free DLC. This category, albeit not under the DLC moniker, has a long history outside the console segment. Since the rise of networked PCs, the distribution of additional, free material has been a familiar part of game culture. Rather than giving away 'free stuff' for the sake of it, the distribution of free DLC ties into for-profit publishing strategies. A couple of years into the next-gen cycle, game publishers leveraged the free nature of DLC by offering premiums to users who buy new games in stores (instead of second hand), thereby rewarding such 'good behavior' via additional free DLC only available to the original owner. Other instances of free DLC are meant to extend the longevity of a multiplayer title, maintain customer loyalty, or as a tie-in with advertisements (e.g. free DLC codes on soda cans).³⁴

The third category of branched serialization concerns digitally distributed user created content (UCC, also referred to as user generated content, UGC). This type of additional content is also firmly rooted in PC game culture. This third sub-strategy is far less dominant compared

33 The notion of “branching” aims to signify the dependent nature of extended material on the core game. Similar to a tree branch always being attached to a tree, additional game material can only be used together with the core game (technology). Similar to branches changing the tree's form, additional game content can change the Triple-A game's commodity form.

34 There are other reasons as well to offer free DLC, but these currently seem the most explicit ones. These three strategies are integrated, for example, in the first-person shooter *Battlefield: Bad Company 2* (2010). Throughout 2010, Electronic Arts ran an advertising tie-in with the soft drink brand Dr.Pepper by offering “unique DLC” for selected Electronic Arts titles (e.g. *Mass Effect 2*, *Battlefield Heroes*, *The Sims 3*, *Spore*, *Battlefield: Bad Company 2*). See: “Dr Pepper - Promotions”. 2010. Available: <http://www.drpepper.com/promotions/ea/rules/>. Last visited October 1, 2010.

to the 'golden ages of PC modding' and the now ubiquitous PDLC model for video games; only a select set of Triple-A console titles offer free UCC, often alongside various forms of DLC and PDLC.³⁵ It must be stressed that the branched serialization strategy is very much work-in-progress. In the early days of the seventh console cycle the inclusion of particularly PDLC appeared to have been an afterthought and initial offerings had an experimental character in terms of price, size and function.

The Triple-A commodity form's second dominant formatting strategy is game franchising: the serialization of discrete game titles. From the earliest stages of creative conception, a next-gen title is set-up to be part of something bigger and if a title hits its set goals for success, then there will be one or more sequels. Again, this dynamic is not unique to games and is similar to the production and circulation of books, blockbuster films (cf. Thompson, 2007), and as the notion of serialization in particular suggests, TV series (cf. Hayward, 1997; Kompare, 2010; Pearson, 2009). That said, publishers in the next-gen era complement the all pervasive strategy of franchising with a myriad of customization options, or rather additional modules consisting of original material to add onto the core game. More so than franchising, it is the branched serialization strategy which leverages the unique textual and technological properties of video games as software. Taken together, both strategies should be seen as dominant ones and a set of fluid rather than a strict set of principles. As we will see in the next section, due to the economic and technological contingency of game production and circulation, in practice both strategies translate in to a diverse set of day-to-day institutional practices.

Section 2.2 will use the *Call of Duty* franchise to illustrate the anatomy of the next-gen Triple-A game and further deconstruct both formatting strategies. I will argue that the unfinished nature of the Triple-A game as a cultural commodity translates into, on the one hand, the constant drive towards the expansion of the artifact beyond its initial release as well as providing every discrete title with a follow-up. This property of continuous extension cannot be separated from the nature of digital games as software and its integration with proprietary hardware platforms. As we will see in this chapter and the next, while the Triple-A commodity form has clearly changed, it becomes apparent that the cultural game industry's underlying institutional structures, the reliance on strict formatting strategies and the materialist conditions underlying capitalist cultural production changed very little. The question what the unfinished nature of the commodity form means for gamers and every day play, remains very

35 High profile examples of next-gen Triple-A console games featuring UCC are mainly Playstation 3 titles as *Little Big Planet* (2008), *ModNation Racers* (2010), *Unreal Tournament III* (2007), on the Xbox 360 *Forza Motorsport 2* (2007), and on both platforms *Guitar Hero: World Tour* (2008).

much up for debate. One thing is certain, though, in every way imaginable: a gamer is never 'done'. One could say this is a condition of culture; is it ever 'done'? My focus then is primarily on the game publisher and how he performs his magic trick and how he tries to keep all of the consumption inside his own circus tent.

2.1 The hybrid console cycle

The story of the Triple-A console game is a tale of transition, from a PC dominated game industry to a console led industry, from the distribution of physical goods (i.e. discs) towards a hybrid model of the sale of physical copies extended through digital downloads, and thus from one commodity form towards another. Before introducing the notion of a hybrid console cycle, which is a more apt descriptor than its popular “next-gen” moniker, I will draw attention to the sizable economic, technological and socio-cultural impact of the next-gen console cycle compared against previous console cycles as well as other segments within the wider cultural game industry. Let me first elaborate on the decreasing (economic) relevance of the Microsoft Windows based PC as the dominant publishing platform for Triple-A games.³⁶

To be sure, the significance of the PC as a gaming platform has by no means decreased. On the contrary, the popularity of browser based 'social games', accessed via popular social networking sites such as Facebook.com, as well as downloadable casual games speak volumes of the platform's versatility (Juul, 2010; Merel & Smith, 2010). However, for the small group of global game publishers of Triple-A games, the PC is less and less viable as the primary publishing platform.³⁷ These shifts not only affect the Triple-A commodity form, they also shake up intra-industry power arrangements, an issue explored in chapters 4 and 5. The implications of the gradual shift from the dominance of the PC as a relatively open publishing platform to the console's economic success, being a proprietary hardware platform, will be critically examined in chapter 6.

Next to certain developers and publishers, there is one PC-based genre in particular—the MMORPG—which drives Triple-A related revenue on the platform.³⁸ However, despite the financial success of a small number of MMORPGs, particularly *World of Warcraft*, the total volume of PC retails sales has been in steady decline for years. From 2003 to 2008, packaged good PC games have declined in global market share from 24% to 9% (Pachter & Woo, 2009: 30).³⁹ In 2007, before its merger with Blizzard Entertainment, for game publisher Activision the

36 Other operating systems such as Apple's OS X or open source operating systems as the Linux based Ubuntu are virtually ignored by major publishers: “According to the NPD group, in 2008, over 93% of all PC software sold was for Windows-based computer systems” (Pachter & Woo, 2009: 95).

37 Many major franchises published by third-party publishers follow a cross platform release strategy. This means that one game is released for, in many cases, the Xbox 360, Playstation 3, and the Windows-based PC.

38 For instance, the U.S. based privately owned Valve Inc operates its own proprietary software distribution platform *Steam* to distribute PC games.

39 Note that there are considerable regional differences with, based on 2008 figures, 6% PC market share in North America, 13% in Europe and 7% in Japan (Pachter & Woo, 2009: 30).

percentage of revenue derived from Triple-A PC games was a mere 5% (\$78 million in global sales), compared to 29% in 2000 (\$115 million).⁴⁰ Conversely, the publisher's revenue derived from its console segment rose from \$281 million in 2000, to \$886 million in 2008. Unsurprisingly, Activision Blizzard, as well as its many competitors, shifted its attention to the next-gen platform to publish blockbuster games.⁴¹

Second, similar to other sectors in the wider cultural industries, the cultural game industry is in a transitional phase moving from a physical, or 'packaged goods' industry (i.e. selling boxes in retail stores) towards an on-demand distribution model based on digital distribution. As of late 2010, digitally distributed console games are available across genres, platforms and publishers. On the one hand, selected next-gen Triple-A games, often titles that were previously published via retail, are available as downloads via the Xbox Live Games on Demand service. On the other hand, non-console titles from the popular *Pet Society* (2008), *EA Sports FIFA Superstars* (2010) or *Farmville* (2009), to the thousands of games on websites such as Kongregate.com, Pogo.com, and Zylom.com are all distributed digitally, as is every game published on a smart phone or tablet. Given its hybrid character, the next-gen video game commodity form could be placed between the packaged good model (the pre-networked console cycles from 1972 - 2004) and the online only distribution model.

This is not to say that the revenue derived from selling single, discrete console games (handheld and TV-based) and PC games is in decline: “The 8.5% compound annual sales growth for software over the past 10 years has resulted in the interactive entertainment segment being among the largest sectors within the entertainment industry” (Pachter & Woo, 2009: 23). Yet, for the majority of video game publishers, the revenue growth of non physical goods for all game hardware platforms has been much higher.⁴² For Electronic Arts, a publisher who has been at the forefront of exploiting both the hybrid nature of the unfinished commodity as well as new digital revenue streams, these “digital components” span genres, demographics and hardware platforms. These instances of digital revenue are better understood as new, and often complementary business models, including subscription revenues, free-to-play schemes coupled with microtransactions, the digital distribution of

40 These figures are from the 2007 (Activision, 2007: 26) and 2002 (Activision, 2002: 14) annual reports and are based on the percentages of total consolidated net revenues.

41 To be sure, there are considerable differences among publishers in their platform (or segment) mix, choosing between handheld, next-gen, the Wii, mobile and PC. One of the strategic goals for Activision and Blizzard Entertainment to merge would be to offer a more diverse portfolio, combining the console focused catalogue of Activision with the PC-based expertise and revenue streams of Blizzards PC titles (i.e. the *Warcraft*, *Starcraft* and *Diablo* franchises).

42 For example, Electronic Arts saw its “digital revenue” (derived from mobile, handheld consoles, PC full downloads and subscription services, and other digital related revenue) rose from \$430 million in (fiscal year) 2009 to an (estimated) 750 million in 2011 (Brown, 2010b).

mobile games, advertising, web-based casual games, and, last but not least, downloadable content for consoles.⁴³ It is the latter category, the availability and exploitation of paid-for downloadable content (or PDLC) for Triple-A video game titles that is one of the defining features of the Triple-A commodity form.

The seventh generation of HD consoles—as were the six console cycles before—is a moment of disruption and thus a moment of change in gamer discourse, market structure and institutional practices (cf. Bissell 2010; Chatfield, 2011: 27-38; Dymek, 2010). In addition to the networked capabilities that are part of all next-gen consoles, both handheld and dedicated, what makes the The Playstation 3 and Xbox 360 truly next generation machines, are the affordances of these consoles' powerful and innovative hardware. In opposition to the Nintendo Wii, the next-gen machines are explicitly positioned to leverage their unprecedented computational power and voluminous and expandable storage media. Ironically, these technological affordances have a rather significant repercussion. High Definition (HD) gaming experiences come at a steep price, resulting in higher development budgets and thus asking for a continuous revenue stream to sustain year-round game development while simultaneously fending off inquisitive analysts and demanding stock holders. As a result, high-def production values translate into bigger risks for game publishers financing next-gen console games.

At the same time, the hybrid Triple-A game allows for ample opportunities to expand upon titles beyond their initial release, if only for providing game publishers with the chance to, to put it micro-economic terms, extend the value chain—a strategy which will be explored in-depth in this and the next chapter. The option of prolonging the process of game consumption through additional digital offerings seems like an obvious choice for for-profit game publishers. Release a Triple-A game and publish some additional game content after its launch to complement your title. Yet, the process of commodification is, and always has been, an uncertain, complex and contested process (Hesmondhalgh, 2007; Mosco, 2009; Ryan, 1991). The debate surrounding one of the earliest PDLC offerings in the next-gen era, is revealing in this respect.

Initially, the transition towards the hybrid commodity form appeared to have a rocky start, not so much because of the disruption inherent to the start of a new cycle, but because during the early months of the seventh generation, a relatively small but vocal crowd of early-

43 According to its own estimates, Electronic Arts saw its revenue from packaged goods declining from 94% in 2003 to 65% in calendar year 2008 (Brown, 2009). As Brown's presentation indicates, there are significant regional differences in the digital/packaged goods mix. In Asia 56% of Electronic Arts' revenue comes from direct digital revenue streams, more than double that of Europe (22%) and North-America (23%).

adopters of HD consoles were confronted with game publishers and platform owners experimenting with the introduction of a new business model. For the console segment game publishers took some unprecedented steps to commodify additional game content. Yet, after several early bumps in the road, the unfinished nature of the Triple-A commodity soon became a 'natural order' and cemented a set of formatting strategies combined in a by now dominant commodity form. Let me briefly revisit this early episode of disruption.

A knight in expensive horse armor

Early April 2006, two weeks after Bethesda Softworks published the single-player roleplaying game *The Elder Scrolls IV: Oblivion* for the Xbox 360, the publisher offered a small piece of PDLC via Xbox Live Marketplace (the 'electronic storefront' which is integrated in the Xbox 360 main menu). It was three months into the seventh console cycle and Bethesda's business proposition was in many ways a novelty. Three megabytes in size and priced at a 'mere' 200 Microsoft Points, the "Horse Armor Pack" allowed players to change the appearance of their ingame horse.⁴⁴ Judging by the immediate explosion of online anger, the release of the Horse Armor Pack struck an open nerve with the relatively small, but vocal group of 'core' gamers who were among the first to own a Xbox 360. According to an online commenter called 'Nate': "... this is ridiculous. And if I'm not mistaken....aside from protecting your horse (who is generally useless as it is), it does nothing to enhance the gameplay" (Ransom-Wiley, 2006). Soon the notion of 'Horse Armor' became an Internet meme and it entered the gamer's lexicon as shorthand for overpriced or rather useless, paid-for additional content.

Yet, rather than pulling the plug on its post-launch monetization strategy, Bethesda Softworks made subsequent packs more substantial while lowering the pack's prices. Early 2009, a company spokesperson announced on the corporate blog: "Looking at our Xbox Live reports, every day, tens of thousands of people STILL play Oblivion and they purchase thousands and thousands of downloadable content—again, every day. Yes, even Horse Armor continues to sell daily" (Acheng, 2009). The nature and status of PDLC is as much defined by those who develop and publish it, as by consumers who provide it with meaning and integrate it into their day-to-day play. However limited or seemingly useless additional content may seem in the eyes of some, there clearly is a significant market for virtual goods. While

44 Two hundred Microsoft Points is equivalent to \$2.50 or €2.33 Euro. Bethesda was not the first publisher to sell small pieces of additional content on the Xbox 360. The launch title *Kameo: Elements of Power* (2005) coincided with the availability of the "Winter Warrior Pack", a package similar to Bethesda's pack; the Winter-themed package also changed the appearance of ingame characters, as opposed to offering substantial gameplay additions such as new maps or quests.

Bethesda might have been singled out by gamers for selling overpriced PDLC, the new business model did not spring out of thin air and the company essentially did what so many companies had done before. Allow me to, very briefly, take a step back in time and position the PDLC format as a historical continuity in the evolution of the Triple-A commodity.

Over the last decades, the PC as a gaming platform allowed gamers to pick from a wide variety of supplementary content. Much of this content, such as clothing for game characters as in *The Sims* franchise, or maps, levels or full total conversions modifications for First Person Shooters, has traditionally been developed and published for free by users, fans and 'modders', i.e. amateur game developers (Nieborg & Van Der Graaf, 2008; Sihvonen, 2011). Game publishers, on their part, routinely support PC games after launch with all kinds of additional material, ranging from substantial for-profit productions such as expansion packs and 'official' map packs to free updates such as maintenance patches and bug fixes. Especially for developers of first-person shooter PC games such as Epic Games, Valve Corporation and Id Software, giving away 'freebies' has been a common strategy to retain customers, extend the shelf life of a title, and keep the online player base entertained (cf. Anderson, 2009). For next-gen console games, many of these goals still underpin the Triple-A publishing strategy.

That said, the main difference between the great majority of free complementary content for PC games, either produced by for-profit developers or individuals, and the next-gen PDLC strategy, has to do with pure economics. Implementing and exploiting the strategy of offering additional paid-for downloadable content as an additional revenue stream has gained both considerable urgency and traction over the last years. The "Horse Armor" debacle and its initial backlash show that the introduction of PDLC was no small step for a small group of big corporations. In many ways, game publishers were in uncharted waters; industrial behemoths like Electronic Arts and Activision Blizzard were only partially able to tap into their institutional knowledge of how to structurally sell additional, complementary material.⁴⁵ For long, PC game developers and publishers have been accustomed to publishing so called "expansion packs" (physically published game extensions for stand-alone retail games) as well as to freely distributing patches and allowing for user-created modifications. Conversely, for the console segment this new way of doing continuous business was, at least in early 2006, unprecedented. Considering both the initial implementation of PDLC, its release timing and pricing strategies, the unfinished nature of the Triple-A commodity was not fully ingrained in

45 Talking to investors and analysts, Electronic Arts' Chief Financial Officer spoke openly about the uncharted water the publisher is in concerning how to implement post-launch DLC strategies: "There's no playbook to follow. This is new to everyone. And so we'll have to see what happens after this year, reassess and go from there, but the point I would make is that the DLC offerings for a packaged good can be fairly complex" (Brown, 2010a).

the workflow of video game development studios, nor in the publisher's release schedules or its marketing strategies.

In 2009, at the time the next-cycle was in full swing, a new kind of economic logic had evolved. Developing, publishing and consuming PDLC had become a natural part of Triple-A game culture. For Electronic Arts' Chief Financial Officer (CFO) Eric Brown (2009) offering PDLC is about extending demand, catalyzing additional demand and educating the consumer “and when the consumer becomes conditioned to understand that the game is a bit open ended as opposed to discrete, they are much more likely to keep it in the disc tray and play it and refer to their friends and go back and look for the additional updates.” Subsequently, the real challenge, then, becomes to find the sweet spot of the quantity of PDLC versus regular (free) DLC, and when to publish it: “What the publishers need to sort out is the right mixture of what to provide at launch, on an ongoing basis, what is free and what is paid. We have seen a variety of difference variance of those four categories” (Brown, 2009). As it turns out, the first half of the next-gen cycle (2005 - 2010) offered numerous opportunities to experiment.

Three years after the infamous launch of Bethesda Softworks' *Horse Armor*, game publisher Electronic Arts launched their single player roleplaying game *Dragon Age: Origins*. As its name suggests, the game is clearly positioned to be the first one in a new series of *Dragon Age* titles. By then, gamers were apparently 'fully conditioned' to accept copious amounts of PDLC as Electronic Arts pursued a well planned post-launch strategy for its “new fantasy RPG blockbuster”, boasting to business analysts that the publisher had “a very ambitious downloadable content plan for keeping players engaged long after release” (Electronic Arts, 2009).⁴⁶ From the early announcement of the game's existence (July 2008) until the release, the publisher stressed the game's unique selling points rather than the publisher's many post-launch monetization options.⁴⁷ In the press release announcing the game hitting the retail shelves, the publisher explicitly mentioned the existence of “several downloadable content packs” that were “also now available”.⁴⁸ Both press releases show how in a relatively short period of time, the availability of additional content has become a natural order and is even expected by critics and gamers.

46 Not only that, *Dragon Age* can be seen as an example of “transmedia storytelling” (Jenkins, 2006a), and compared to similar RPG's a forerunner in this respect, as the game's release was accompanied by two novels, *Dragon Age: The Stolen Throne* (Gaider, 2009) as well as a prequel to the game's main story, a free-to-play, browser based tactical RPG called *Dragon Age Journeys* (2009), a board game, an anime film, and a comic book.

47 *Dragon Age: Origins* was marketed as: “the spiritual successor to BioWare's critically acclaimed *Baldur's Gate*, featuring deep character customization and roleplaying, morally challenging decisions, tactical party-based combat, and a wealth of gritty, mature sub-plots that together make it one of the most highly-anticipated PC and console releases of 2009” (“BioWare Announces New Release Date for *Dragon Age: Origins* PC”, 2010).

48 (“BioWare's *Dragon Age: Origins* Hits Retail Shelves in North America”, 2010).

The uniform pricing and well planned post-release timing of *Dragon Age: Origins*' DLC and PDLC also illustrates that the *ad hoc* distribution of Horse Armor has been replaced by a more integrated publishing model in which post-launch material has an additional, more strategic role beyond generating immediate revenue. For example, in order to combat piracy and limit the sell through of used copies, Electronic Arts provided two pieces of free DLC at launch; "The Stone Prisoner" and "Blood Armour".⁴⁹ The first piece of paid-for DLC, called "The Warden's Keep", was considered a huge success by Electronic Arts and generated over one million dollars in revenue within a week (Brown, 2009). Throughout 2010, the Xbox 360 release rhythm of *Dragon Age* material kept a regular pace with a January PDLC release, followed by the mid-March release of an expansion pack (*Dragon Age: Origins - Awakening*, 2010, also sold at retail), a set of small April Fools related PDLC packs, followed by a steady stream of content in May, July, August and September 2010.⁵⁰ In October the "Ultimate Edition" was released, containing the core game, all DLC and PDLC and the expansion pack. Amidst the PDLC releases, the inevitable sequel was announced and set for a March 2011 release, a full year after the release of the first and only expansion pack.

The example of *Dragon Age: Origins* and its underlying business rationale are indicative of the shift towards the increasing importance of complementary digital sales for major publishers Brown alluded to in the opening of this chapter. As for *Dragon Age*, the title "was designed at the outset to have extensive PDLC at launch as well as through the next 12-plus months of its lifespan" (Brown, 2009). After three years of experimentation and 'conditioning' the consumer, PDLC is fully integrated into the entire fabric of the next-gen Triple-A game. The Horse Armor experiment, and many associated developments in the business strategies of game publishers, marks the evolution of the logic of cultural commodification: publishing games which are purposely unfinished upon release, and explicitly marketed as such, in order to expand the core product and sell additional material.

Political economist Nicholas Garnham (2000) argues that one cannot understand the process of commodification and the dominant mode of cultural production without accounting for various patterns of consumption. As both the *Horse Armor* debacle and the success of *Dragon Age* show, power is rarely absolute and alternative consumption strategies might challenge, shape or reshape the dominant mode of production (and distribution) in

49 Each boxed copy contains a unique code, which allows the owner to download free material. This additional content is then tied to the user's account (either Xbox Live or Playstation Network) and is non-transferable. If a gamer wants to sell his or her copy, the new owner of the second hand copy can only use the unique code if the original owner decided not use the code in the first place.

50 The Playstation 3, PC and Mac platforms are on a different release schedule. All pieces of DLC and PDLC will be combined and be sold at retail as the *Dragon Age: Origins: Ultimate Edition*.

unexpected ways. The attention to this process of mutual constitution is one of the key elements of Mosco's (2009) effort to define and rethink a political economy approach and by drawing specific attention to the process of commodification, signaling ongoing change rather than a fixed state of being, and linking issues of power and control to forces of "change and contestation" (Golding & Murdock, 1978: 354). What this means for the process of commodification in the realm of video games is that rather than a strict, top-down checklist of certain predestined actions to be followed by industry executives, the unfinished commodity logic is an evolving logic and should above all be seen as a power struggle among various actors related to the production, circulation and consumption of Triple-A games.

To illustrate the shift towards the hybrid model of physical goods and digitally distributed complementary content, and before grounding this shift in political economic theory, I will offer a deeper insight into the anatomy of the next-gen Triple-A game. Brief examples as to how DLC and PDLC are integrated into *Dragon Age: Origins* and *The Elder Scrolls IV: Oblivion* tell only half the story. In the next section I will argue that the core-defining features of the next-gen Triple-A game are two distinctive formatting strategies; not only branched serialization but also franchising. Both strategies are crucial for our understanding of the Triple-A commodity form as well as the positioning of the commodity form within the cultural game industry and the cultural industries as a whole. In sum, it is impossible to understand contemporary digital play without a critical account of the Triple-A game's logic of game production, circulation and consumption.

2.2 The anatomy of the blockbuster video game

During the first decade of the twenty-first century we have witnessed the rise of a game culture in Northern-America, Europe and Asia, moving from a 'simple' physically distributed stand-alone game towards the constant expansion of a discrete game title. Game related technology, such as console hardware and developer tools, is constantly upgraded and following their release individual titles are patched, altered and added upon. In many ways, the genre of massively multiplayer online games (MMOGs) epitomizes the shift of the production of 'fixed' texts (e.g. books and films) towards texts that are constantly altered by both its users and its producers. *Everquest* is such a game which:

[...] being played years later has been modified, tweaked, added to and deleted from. The code has changed, the rules have changed, the images and words have changed. It has been populated with communities. It changes with every player keystroke and action. It changes with every new relationship—be it a friendship, a romance or a rivalry. It changes with every interaction between players (Humphreys, 2009).⁵¹

The unstable and malleable nature of networked virtual worlds has serious implications for thinking about issues such as intellectual property rights, user-producer relationships, the democratization of innovation, but also for the commodity form and associated formatting strategies (cf. Balkin, 2006; Davidovici-Nora, 2009; Glas, 2010; Humphreys, 2005; Rettberg, 2008; Taylor, 2006).

Traditionally—before the advent of the seventh console cycle—the Triple-A video game was something you bought in a store, then put into your console and started playing until you finished the game or got bored with it. These were the days of best sellers as *Gran Turismo 3: A-Spec* (2001), *Metal Gear Solid 2: Sons of Liberty* (2001), *Grand Theft Auto: Vice City* (2002), *Fable* (2004), *Grand Theft Auto: San Andreas* (2004), and *Gran Turismo 4* (2004). With no standard multiplayer option, and with no ways to customize the material beyond what was on the disc, there were few ways to lengthen the life span of console titles. Once you

51 The same can be said of *World of Warcraft*, *Lord of the Rings Online: Shadows of Angmar* (2007) and all those other MMORPGs. The MMORPG is primarily a PC based genre. *Final Fantasy XI* (2006) is the exception to the rule as it is a subscription based MMORPG available for the Xbox 360. One of the game's sequels will be published for the Playstation 3 with launch of *Final Fantasy XIV* (2011). Mainly because of Microsoft's restrictive publishing policies and the company's firm grip over its proprietary hardware platform, Square Enix decided not to publish part 14 of the series on the Xbox 360: "The main reason why we couldn't go with Xbox 360 was the Xbox Live system. [Live is] different to the normal internet environment, so when we wanted to introduce this game in the same environment as Windows PC it had to be PS3, so that was our choice" (Purchase, 2010). The Playstation 3 offered two MMOGs, *DC Universe Online* (2011) and *Free Realms* (2011).

finished a game, you could replay it, but that was it.⁵² To be sure, what Aarseth (1997) dubs “exploration” and “configuration”, and Raessens (2005) labels “reconfiguration”—customizing one's gameplay by adjusting the parameters or code on the disc—has always been a crucial domain of participation, ranging from ingame customization options to changing a game character, and from car upgrades to additional game modes. What we are witnessing during the next-gen console cycle is the continued exploitation of that logic. The next-gen Triple-A game is specifically positioned to generate additional revenue beyond 'traditional' retail sales and aims to keep players caught in a particular game world, and, in the long term, within a franchise.

In its form as an unfinished commodity, the next-gen Triple-A game is still a far cry away from the adaptive and versatile nature of the PC-centric MMOG form, which supports business models ranging from advertising and subscriptions, to microtransactions and PDLC offerings. There is, however, one thing MMOGs and Triple-A games do have in common. Both commodity forms are in constant flux; they are constantly added upon and are expected to be continuously altered on a textual and technological level. For the operators of MMOGs, this opens up a wide range of monetization schemes; for publishers and gamers the MMOG is as much a discrete physical good as it is the entry fee to a wide range of ancillary services. In terms of business models, the Triple-A format is much more rigid. The library of next-gen console games has seen no free-to-play titles, supports no microtransactions similar to the likes of MMOGs, advertising revenue is rising but far less significant compared to the browser based casual PC-game, and the subscription model is, as of yet, non-existent.⁵³

The next section will go on to theorize and conceptualize the Triple-A game's commodity form and critically analyze the logic underlying its development, publishing strategies, and consumption patterns. But before doing so, I will first sketch a richer picture of the Triple-A hybrid publishing logic and illustrate the anatomy of one of the major Triple-A franchises: *Call of Duty*, a series published by Activision Blizzard and developed, ported or

52 There are, of course, exceptions to the rule. Especially Xbox games later in the sixth generation cycle, did offer multiplayer options. Think of *Halo 2* (2004), *Counter-Strike* (2003) or *Need for Speed: Underground 2* (2005).

53 It must be stressed that this observation goes for Triple-A games and is based on the Western console market and the first part of the next-gen cycle (November 2005 - mid 2010). The subscription and micro-transaction business models are used for the hardware platforms, especially the Xbox Live service where “Gold” members pay an annual fee and where gamers can buy game related items (themes, avatar clothing, et cetera).

worked on by several of its in-house studios and external contractors.⁵⁴ Drawing on the two complementary formatting strategies of franchising and branched serialization, this key 'intellectual property' will be compared against the well known James Bond movie franchise to highlight the pervasive use of serialization in the cultural industries at large. The anatomy of the Triple-A commodity form has its techno-economic particularities, but also shares many traits with other cultural forms and previous console cycles.

Call of Duty: A billion dollar franchise

When it comes to franchising, the movie franchise of *James Bond* and the first-person shooter franchise *Call of Duty* have much in common. Both are characterized by the common formatting strategy of serialization as a way to provide continuity between discrete titles.⁵⁵ For the sake of brevity and clarity, I will only consider the box-office releases of the *James Bond* movies and leave out the many other publishing opportunities (i.e. airplanes, TV syndication, VHS, DVD and Blu-ray releases, pay-per-view, et cetera). Figure 2.1 shows the box-office release of three *James Bond* movies; *Die Another Day* (2002), *Casino Royale* (2006) and *Quantum of Solace* (2008). Unlike other blockbuster movie releases as Peter Jackson's *Lord of the Rings* (2001 - 2003) trilogy or the *Harry Potter* (2001 -) movie series, both the *Call of Duty* and *James Bond* franchises are still on-going.⁵⁶ That is, the James Bond movie series is, in theory, infinitely expandable.⁵⁷ Given consumer interest, and as long as movie trademark and

54 In-house Activision studios working on the Call of Duty franchise (across all game platforms) are Infinity Ward, Treyarch (and Gray Matter Interactive which was acquired by Activision in 2005 and merged into Treyarch). External studios are Pi Studios, Spark Unlimited, Aspyr Media, n-Space, Amaze Entertainment, Ideaworks Game Studio, Certain Affinity, and Rebellion Studios. In addition, a wide range of auxiliary production companies aided to the production of *Call of Duty* installments, particularly on the next-gen titles (e.g. sound recording facilities, additional art work, military advisers). Chapter 4 and 5 will give a brief overview of how external studios and companies relate to game studios and publishers.

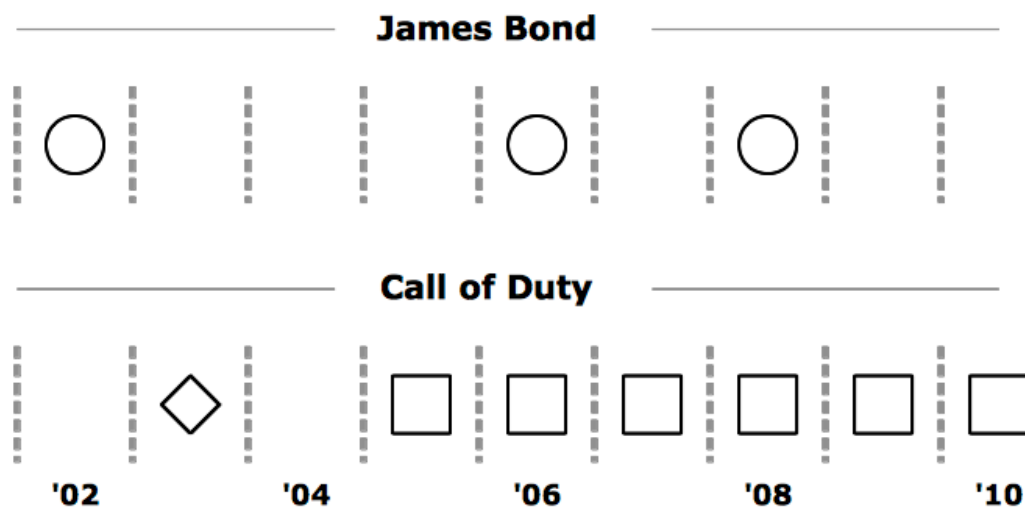
55 The *James Bond* movies are used as an example here because of their open ended and serialized nature and the fact that they are so well known.

56 In typical synergistic fashion: "[The] LOTR project was from its inception conceived as a franchise in the corporate boardroom. Like most media franchises, video games were part of the ancillary package developed for the LOTR films, with three games released in tandem with each film" (Brookey and Booth, 2006: 215, cf. Thompson, 2007). Together with a roleplaying game (*The Lord of the Rings: The Third Age*, 2004) and two strategy games (*The Lord of the Rings: The Battle for Middle-Earth*, 2004, and *The Lord of the Rings: The Battle for Middle-earth II*, 2006), the second and third movie of the *The Lord of the Rings* trilogy were preceded by an EA published videogame (developed in close cooperation with the movie production company).

57 This is not to say that the *Harry Potter* and *Lord of the Rings* franchises will most likely not be expanded in the future, rather, that the core narrative of both series are based on a finite number of books (three books and seven respectively). As both Tolkien, his son, as well as Harry Potter author J.K. Rowling published supplements, prequels, and numerous additional texts expanding both narrative universes, there are many ways both movie franchises can be extended as well. Conversely, I would argue that the never aging *James Bond* and the *Call of Duty* universe which is more of a genre (i.e. action game) template than a fixed narrative, are more open ended as opposed to the more closed and linear narratives of the life and adventures of Harry and Frodo.

copyright owners Danjaq and United Artists decide to do so, James Bond will be alive forever.⁵⁸ The same goes for *Call of Duty*. In a similar timespan as the three *James Bond* blockbusters, the *Call of Duty* franchise had six major installments, starting October 29, 2003 with the PC release of *Call of Duty*.⁵⁹

The cultural game industry's franchising strategy has its roots in the earliest days of the dedicated console: "Before they support a new title as a platform game, developers and console makers want to be confident that it has a storyline and character that can be morphed into a "serialized" franchise, media spin-offs, and product-linked merchandise" (Kline et al., 2003: 237). There are few financially successful bestselling blockbuster games that forgo the serialization treatment: "[...] the logic of economies of scale and the fear of failure favour the serialization of success" (ibid). It must be stressed that for years, if not decades, franchising as a formatting strategy has been a common business practice for developers and publishers in all major segments of the cultural game industry (cf. Sheff, 1999). What has changed, however, is the strategy's dominance. Due to a mixture of technological affordances, economic necessity, and consumer demand, the franchising strategy is the *sine qua non* of the next-gen Triple-A segment.



[Figure 2.1] Franchising *James Bond* and *Call of Duty*

Or, to turn the argument around, a blockbuster game is by definition meant to be extended. Since late 2005, the top-selling next-gen titles were, with few exceptions, either sequels or

58 United Artists Entertainment is a Metro-Goldwyn-Mayer Inc. subsidiary. Danjaq, LCC is a family owned holding company. Both are private companies.

59 The comparison here is between the *James Bond* box-office releases and the *Call of Duty* next-gen Triple-A releases. After the box-office release, the movie is then released on many different 'platforms' as airplanes, DVDs, television, and so on (cf. Kompare, 2005, 2006).

licensed IP.⁶⁰ New, original titles based on publisher owned intellectual property (instead of using IP licenses from movies, sports or TV-series), became very exceptional during the next-gen cycle. To be sure, there were original console games.⁶¹ Yet, all these games clearly are 'franchise starters', launched early in the new console cycle to establish new 'next-gen franchises'. Within three years, all original titles had one or more sequels.

Business strategists, investors, analysts and industry executives all recognize the franchising formatting strategy as a crucial 'monetization option'. The key to financial success in the next-gen era, as reads the Activision Blizzards 2005 annual report, is to increase operating income "derived from an annualized game portfolio" (Activision, 2005: 18).⁶² To come back to *Call of Duty*, Activision Blizzard CEO Robert Kotick is blunt about his company's serialization strategy that focuses on "proven franchises". In practice the franchising strategy means: "that [titles that] don't have the potential to be exploited every year across every platform", and which do not have "clear sequel potential that can meet [Activision's] objectives of, over time, becoming \$100 million plus franchises", will be purged from Activision Blizzard's catalogue (Activision Blizzard, 2008). Individual installments planned to be published by Activision, such as *Gun* (2005), *Brütal Legend* (2009), and *Ghost Busters: The Video Game* (2009), were either discontinued or sold, while other franchises such as the *True Crime* series (2003 -) were put temporarily on hold to seek out a new development studio.

Call of Duty awaited a different fate and was from the outset positioned to become a franchise: "We will also continue to develop new intellectual properties, such as the upcoming titles True Crime: Streets of L.A. and Call of Duty, which we hope to establish as franchise properties" (Activision, 2003: 10). "The original intellectual property" which after acquisition of development studio Infinity Ward in 2003, became a "wholly owned" IP by Activision and soon turned out to demonstrate considerable "sequel potential". Just as the First Person Shooter is often oriented towards themes such as zombies, Nazi's, and zombie-Nazi's, spawning sequels is a natural part of the genre. The first generation of First Person Shooters launched

60 Top selling means part of the annual cross platform top-30. This observation is based on U.S. sales data from Pachter & Woo (2009: 81; 149).

61 For example the Playstation 3 exclusive titles *MotorStorm* (2006), *Resistance: Fall of Man* (2006) and *Little Big Planet* (2008), Xbox 360 exclusives as *Gears of War* (2006) and *Crackdown* (2007), and or cross platform releases (Playstation 3, Xbox 360, Windows PC, or Mac) as *Assassin's Creed* (2007), *BioShock*, and *Mass Effect* (2007).

62 Note that the annualization of game franchises is often a stated goal, rather than an option. The complexities of game production and circulation, as well as access to human or monetary resources, might prevent annualization strategies. For example, game publisher Take-Two Interactive chairman Strauss Zelnick opposes a strict annualization publishing schedule for franchises as *BioShock* and *Grand Theft Auto*: "We can make quality video games and release them in a somewhat more orderly fashion than we have done historically. We'll stop short of a strictly annual schedule, however, because I think that is the enemy of pushing the envelope creatively" (Fritz, 2010).

throughout the 1990's—*Wolfenstein* (1992), *Doom* (1993), *Quake* (1996), *Duke Nukem* (1996), *Half-Life* (1998) and *Unreal* (1998)—are all still ongoing franchises.

Following the success of the *Medal of Honor* franchise, and *Medal of Honor: Allied Assault* (2002) in particular, the *Call of Duty* franchise followed the, by then, familiar World War II theme, and its first installment proved to be a genuine hit. After a short hiatus in 2004, there has been a new *Call of Duty* franchise iteration published every year. Similar to *James Bond* installments switching actors—from *Die Another Day's* Pierce Brosnan to Daniel Craig—the *Call of Duty* series evolved over time and switched locales and timeframe.⁶³ *Call of Duty 4: Modern Warfare* (2007) proved to be a successful break with the obligatory Normandy beach landings and the umpteenth assault on Berlin, selling almost 14 million copies worldwide.⁶⁴ The monetary value and sequel potential of the franchise was cemented once and for all by the spectacular launch of *Call of Duty: Modern Warfare 2* (2009), which revenue topped \$550 million in five days and reached the elusive goal of becoming a 'billion dollar title', generating as much revenue as the previous five major installments combined (Brightman, 2009a; 2009b). Or, to put it in gamer parlance, *Modern Warfare 2* has become the über-blockbuster, going on to sell an unprecedented 20 million units against an installed base of, at the time, 55 million next-gen consoles.⁶⁵

Several techno-economic properties set the Triple-A game franchising formatting strategy apart from the serialization strategy deployed for blockbuster movies. First there is the intensity—the annualized nature—of Triple-A franchising. Similar to many high grossing box-office sequels (e.g. *The Lord of the Rings: The Return of the King*, 2003; *Pirates of the Caribbean: Dead Man's Chest*, 2006), it is not uncommon for franchises as the *Call of Duty* series, to signal revenue growth with each additional franchise installment.⁶⁶ Second, as opposed to movies, Triple-A games are platform dependent. Figure 2.1 should be read as a summary of the *Call of Duty* franchising strategy and shows *Call of Duty's* stand-alone installments released on the PC, Mac and the two next-gen platforms. Publishers pursue

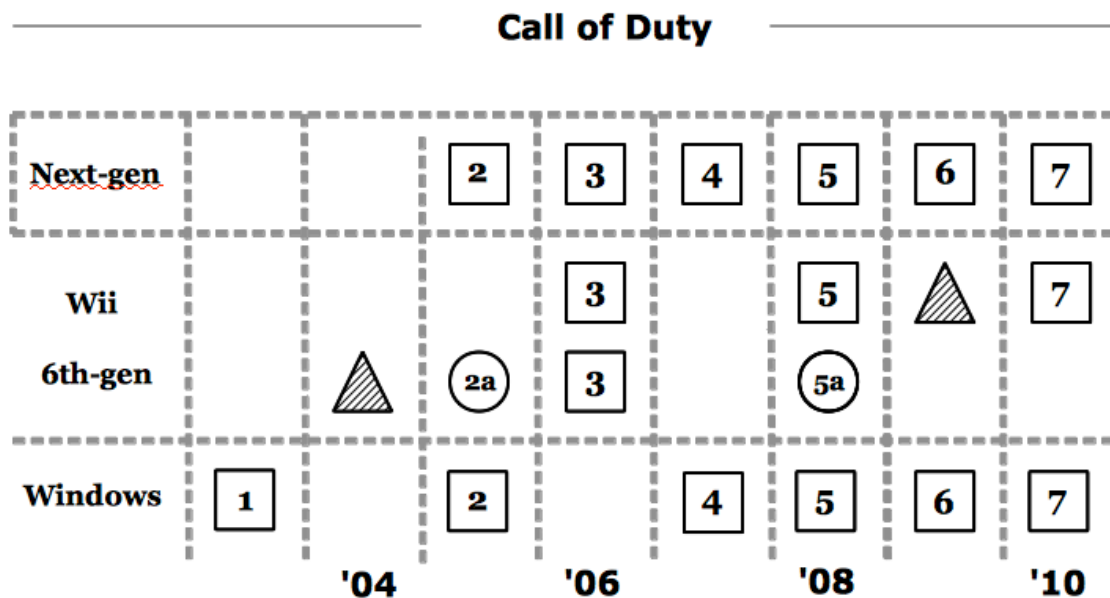
63 After the initial successes of the first installments, publisher Activision urged developer Infinity Ward to keep on the World War Two themed track. Years later Infinity Ward studio executive Vince Zampella revealed that the developer initially rejected the World War II theme and opted for a more modern take on warfare instead: “With *Call of Duty 2*, we were dead set against it being World War 2, but Activision really wanted it, the compromise sort of being that we'd get some dev kits for consoles in exchange for doing a World War 2 game” (Robinson, 2009).

64 The 14 million mark was almost reached in August 2009 (“Activision Blizzard Q2 2009 Earnings Call Transcript”, 2009). Even so, those who thought World War II themed first-person shooters were a thing of the past, were wrong. *Call of Duty: World at War*, part five, was published late 2008 and this installment, including zombie-Nazi's, sold more than 11 million units in 18 months. “Cod:Waw Surpasses 11 Million Units!”, 2009).

65 These numbers were announced by Activision CFO Thomas Tippl at the 2010 E3 summit (Strauss, 2010).

66 By the end of 2008 the *Call of Duty* franchise achieved over one billion dollars in sales. “*Call of Duty* has achieved over \$1 billion life-to-date net revenues in fiscal 2008” (Activision Blizzard, 2009: 13).

synergy effects on a developmental as well as a marketing level by having game developers sharing assets, creative talent and technology, and launch marketing campaigns not only promoting individual installments, but also the franchise as a whole. This means that, for game publishers, franchising is not only a question of temporal serialization, but also of either developing installments and publishing them across platforms (“cross platform strategy”) or create games for specific consoles (the “spin-off” strategy).



[Figure 2.2] *Call of Duty's* multi-platform strategy (2003-2010)

As shown in figure 2.2, since its 2003 PC launch up until 2010, *Call of Duty* had six stand alone releases on the Windows PC platform, as well as six releases on the next-gen machines (Xbox 360 and Playstation 3). Two spin-offs (visualized by the circled 2a and 5a releases) were published on so called “legacy hardware”; i.e. the sixth generation (Playstation 2, GameCube and Xbox).⁶⁷ The grey triangles indicate separate releases for the Nintendo Wii and sixth-gen platforms, apart from the main (i.e. next-gen) releases. The decision to publish on either the PC, Mac, sixth-gen or Wii platform seems to be largely based on economic grounds, the trade-off between the size of the installed base and the number of prospective consumers versus the

67 For clarity and comparison's sake, I did not include releases on Mac OS X, the Nintendo Wii, handheld devices (i.e. the Nokia N-Gage, Apple iPhone, Nintendo DS, Playstation Portable, cellphones with Windows Mobile) or the re-released version of original *Call of Duty* for Xbox Live and Playstation Network. Nor did I include various compilations such gold editions, game-of-the-year (GOTY), or deluxe e.g. *Call of Duty: War Chest* (2006), and *Call of Duty Legacy* (2007) released for the Playstation 2, which combines *Call of Duty: Finest Hour* (2004) and *Call of Duty 2: Big Red One* (2005). Also, collector's editions were left out.

costs of “porting”—the costs to translate platform specific software code—and platform licensing fees.

Both aspects of the Triple-A's franchising logic become apparent in figure 2.2. First of all, the annualized releases of the next-gen versions set the pace of publishing and are by all accounts the leading releases. The rigid, well-planned temporal publishing tempo is indicative of the unfinished nature of the Triple-A commodity. From 2005 onwards next-gen gamers are conditioned to expect a sequel every November. Secondly, the figure shows that the next-gen franchising strategy is complemented by the cross-platform publishing strategy. While this book will not explore the implications and economics of the cross-platforming strategy, the *Call of Duty* release schedule shows the difference in release timing for non next-gen platforms. What is missing, however, in figures 2.1 and 2.2 is the branched serialization strategy and how the availability of downloadable content, either paid-for, free or user-created, relates to the franchising logic. Let's now turn to this strategy.

Branched serialization

The second dominant formatting strategy defining the next-gen Triple-A commodity form is, what I call, 'branched serialization': the extension of discrete titles though additional, digitally distributed content which can be free DLC, paid-for DLC (PDLC), or user generated content (UCC). This new model by no means eradicates the pre-networked model, or, in the words of Electronic Arts Chief Operating Officer John Schappert: “The digital business is very complementary to our packaged goods business. Digital downloads allow us to sell additional content to players and keep our titles fresh at retail. In short, downloads extend the life and profitability of our disc-based games” (Electronic Arts, 2009). It must be stressed that the majority of Triple-A titles are still sold primarily through traditional retail channels, in ways that are similar to the selling of games in previous console cycles. However, additional chunks of game material are sold online through online storefronts—Xbox Live Marketplace and Playstation Store— which are fully integrated into the software of next-gen hardware platforms. As such, the Triple-A commodity form contrasts starkly with games published for cell phones, particularly games for Apple's iDevices, which have no physically distributed component. It is likely that the seventh console cycle is a transitional cycle and that the shift towards cloud computing services will once again alter the Triple-A commodity form and its formatting strategies described in this book.

The complementary branched serialization strategy and the way it is implemented as a business model in the next-gen era, is as of yet primarily beholden to the next-gen Triple-A

form and in many ways defines the blockbuster game as a techno-economic-cultural artifact. Unlike franchising, the branching strategy has its roots not so much in comparable media offerings such as TV series or movie blockbusters, but in software based business models which are focused on both iterative design and continuous distribution and content upgrades (Manovich, 2001; Neff & Stark, 2004), rather than selling discrete, finished units. The main difference between continuously upgraded software (for example Google's services such as the now defunct Google Wave application) and the Triple-A game is again the latter's hybrid nature, combining a discrete parent unit (the physical game bought in a store) with additional purchases.⁶⁸

As for the original PC game *Call of Duty* (2003), the franchise was immediately branched out by the release of the *Call of Duty: United Offensive* (2004) expansion pack, available almost a year after the first installment. This goes to show that the branched serialization strategy is neither completely new, nor unproven. The expansion pack is primarily a PC-based format, although Electronic Arts still physically publishes expansion packs for console games, for example in the case of the *Dragon Age* franchise discussed in section 2.1. Expansion packs can be defined as self-contained retail additions to commercial stand-alone proprietary game titles. Unlike other cultural texts, as movies or books, and similar to PDLC, expansion packs build directly upon the existing code base of the discrete, stand-alone game title and branch out the original game.⁶⁹ Figure 2.3 shows the branching out of the first *Call of Duty* title via an expansion pack (indicated by the cross-hatched hexagon). Looking back, the rather irregular publishing of PC-based expansion packs can be seen as a step-up to the age of ubiquitous PDLC.⁷⁰

Apart from its platform of origin, there are two structural differences between next-gen console based branched serialization and PC based branched serialization. First, the expansion pack differs from PDLC as the former is traditionally sold as a physical good, rather

68 Console games are generally shipped with as few bugs as possible as opposed to, for example, the launch of new services by Google that are “a test, an experiment, a work in progress, a half-baked product” (Jarvis, 2009: 93).

69 To run an expansion pack it is often a requirement to have the original game installed. Which is the case with the majority of PC expansion packs. Conversely, console based expansion packs drop the install requirement of the original game, for example in the case of the Xbox 360 version of *Command & Conquer 3: Kane's Wrath* (2008).

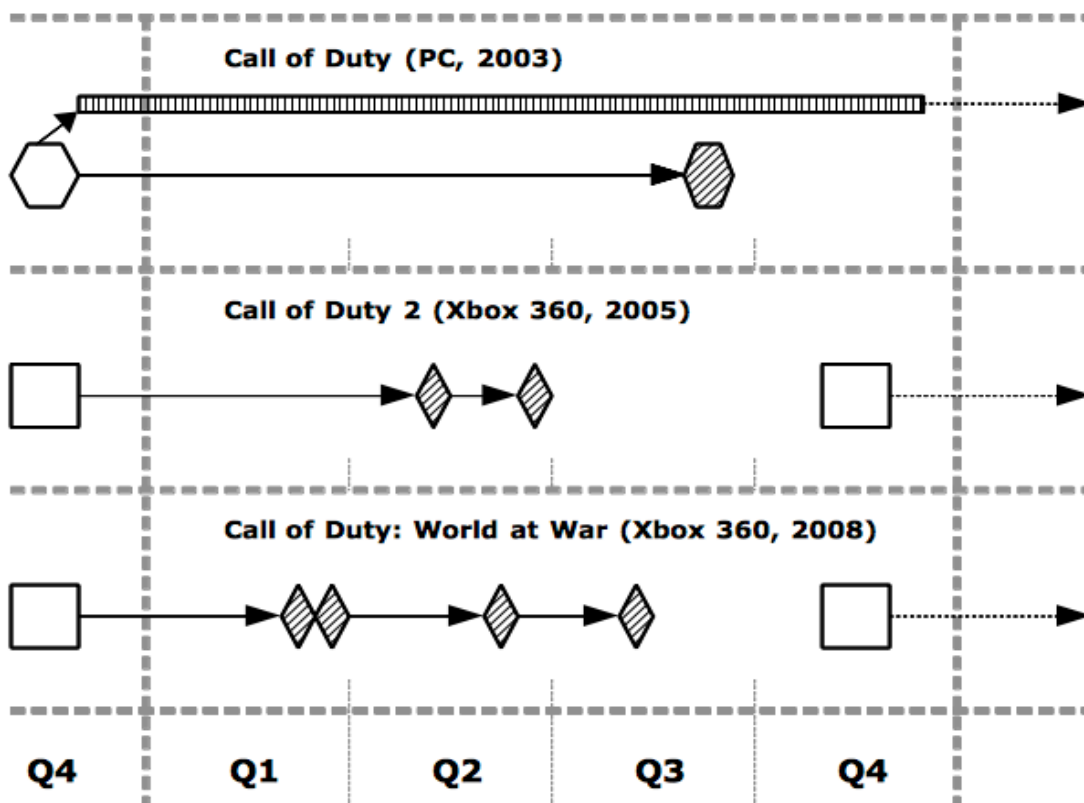
70 The history of the expansion pack demonstrates that toward the start of the next-gen era, both formats—PDLC and the expansion pack—had considerable overlap in terms of its technological, economic and cultural characteristics (Nieborg, 2006a). The expansion potential of the *Call of Duty* on display in this chapter is quite medium specific. While there have been transmedia offerings beyond the medium of the computer and video game (e.g. comic books, action figures and a card game), these materials primarily serve as promotional material, are of little economic relevance and do not seem to have entered the consciousness of many of the millions of *Call of Duty* players. Even though it serves some of the same economic ends, the branched serialization strategy is a structural inversion of transmediality.

than a purely digital extension. Also, with the exception of the successful *The Sims* franchise, part one (2000) selling seven expansion packs and *The Sims 2* (2004) selling eight expansion and ten “stuff packs”, expansion packs in general are less frequently sold compared to PDLC and more substantive in terms of content. This was the case for the PC-based expansion pack *Call of Duty: United Offensive*, offering a single player campaign spanning thirteen levels, a set of eleven new multiplayer maps and three new game modes. Third, as was common for many first-person shooter PC games, *Call of Duty* was infinitely branched out through the availability of a wide range of user-created content such as new player skins, weaponry or total conversions—complete overhauls of the core game. The availability of UCC is illustrated in figure 2.3 through the stretched beam representing an endless stream of small chunks of additional content.

The *Call of Duty* franchise's entry into the next-gen era spelled the end of both UCC and expansion packs as dominant formatting strategies, and the birth of a new form of branched serialization. The *Call of Duty* franchise was among the first series to popularize so-called 'map packs', a sub-genre of paid-for downloadable content.⁷¹ A map pack is a collection of multiplayer maps that is either given away for free, or sold at a price far lower than the stand-alone game or an expansion pack. Figure 2.3 shows the release of map packs (indicated by the diamond shaped extensions) for *Call of Duty 2* (2005) consisting of the free 'Bonus Pack', the PDLC *Skirmish Pack* (May 10), and the PDLC *Invasion Pack* released June 29, 2006.⁷²

71 One could say that this formatting strategy has been explored by EA's in-house development studio DICE. Apart from an expansion pack, the PC-based first-person shooter *Battlefield 2* (2005) offered two “booster packs” (*Battlefield 2: Euro Force*, 2006 and *Battlefield 2: Armored Fury*, 2006) consisting of additional weapons, classes and maps. As such, the booster pack format, in terms of release timing, pricing, mode of distribution (digital only) and contents is very similar to *Call of Duty*'s paid-for map packs.

72 Not shown in figure 2.3 is *Call of Duty 3* (2006) which followed a similar strategy, offering one free map pack and two PDLC packs. Also not shown in figure 2.3 is *Call of Duty 4: Modern Warfare* (2007), the runaway success that saw 'only' one pack; “the Variety Map Pack” (2008) containing four additional maps. Following the game's huge success, this pack set a record by selling over a million units in nine days (Activision Blizzard Q1 2009 Earnings Call Transcript, 2009).



[Figure 2.3] *Call of Duty* and the branched serialization formatting strategy

Similar to the infamous Horse Armor DLC and the “conditioning” remark of EA's Eric Brown, these irregular releases demonstrate that Activision Blizzard was still experimenting with the right mixture of packs (free versus paid), the right price (400 or 800 Microsoft Points for two maps), as well as the right release timing (two packs during the second quarter versus two packs spread out over two quarters).⁷³ The result was *Call of Duty: World at War*, serving as a clear example of a well timed, uniformly priced, in short, a highly rationalized mode of circulation and arguably a blue print of how to implement the branched serialization strategy.⁷⁴ As shown in figure 2.3, *Call of Duty: World at War*, the fifth major installment offered four map packs, strategically launched in the first quarter of 2009 (March, 5 and 19),

73 A month after the launch of the *Call of Duty 4: Modern Warfare* PDLC, Activision Blizzard president Michael J. Griffith commented: “Keep in mind we are still just scratching the surface in this area but we expect to see continued growth and emerging opportunities over the long run” (Activision F4Q08 (Qtr End 3/31/08) Earnings Call Transcript, 2008).

74 This is acknowledged again by Griffith when speaking to analysts: “[We] have a significantly more robust program in place than last year when it comes to downloadable content for sale in the months ahead for [Call of Duty: World at War], building on our successful launch of the one map pack we fielded for Call of Duty Modern Warfare last year”. (Activision Blizzard F2Q09 (Qtr End 9/30/08) Earnings Call Transcript, 2008).

the second (June, 11), and the third quarter (August 6).⁷⁵ In the summer of 2009, Activision Blizzard could boast that it sold more than 8 million maps packs on the next-gen consoles.⁷⁶

Once a novelty, for game publishers releasing map packs transformed from an “emerging opportunity” into “direct accretive revenue generation”; again signaling that innovation in the market segment of Triple-A console games, besides technological and textual experimentation, has a crucial economic dimension.⁷⁷ Similar to *Dragon Age: Origins*, for Activision Blizzard, the *Call of Duty* map packs had a number of notable benefits; 1) they extended the shelf life of the stand-alone product as game magazines and news websites are known to dutifully report on their release, 2) packs decrease the need to trade-in a used version of the game as replayability is heightened because of new content, the 'keeping the disc in the tray' argument, and 3) the publisher is able to “hold pricing longer”; that is, rather than dropping prices as is common for 'older games', the additional content keeps the game in demand and keeps prices close to the initial suggested retail price.⁷⁸ In addition, digitally distributing additional content means there are no sales return risks; a player cannot return a map pack to the store and get his or her money back.⁷⁹ DLC in general can be used as a tool to combat piracy, as online consoles are more prone to counter-measures by platform holders (compared to offline consoles which cannot download additional material). And, last but not least, because of the networked nature of next-gen consoles, by digitally distributing PDLC publishers can get a better view of who their customers are, what kinds of PDLC they buy when, and sometimes even why.

There is very little public data on what moves *Call of Duty* players to invest in PDLC and what keeps them coming back. If the past is any indication, the players of First Person Shooters are keen to add variation to their online play sessions. The existence of expansion packs is indicative of the inclination of players to continuously seek out novel, online enabled content. The same can be said of the availability and usage of millions of user-created maps for first-

75 The first pack was a free remake, but the subsequent PDLC packs were best-sellers; the second pack sold one million units in the first seven days with total sales exceeding two million paid downloads. (“Activision Blizzard Q1 2009 Earnings Call Transcript”, 2009).

76 (“Activision Blizzard Q2 2009 Earnings Call Transcript”, 2009).

77 To drive this point home, months before the launch of *Call of Duty: Modern Warfare 2*, Microsoft announced at its press conference at the annual E3 trade show that the Xbox 360 would be home to a so-called 'timed exclusive' map pack. Again a novelty, to make downloadable content exclusive to a platform, in this case the Xbox 360, for a certain period. By announcing the exclusive pack, Microsoft stressed the economic relevance of downloadable content and implicitly solidified its 'natural' place in the evolving economic ecology of the turbulent next-gen era.

78 This business rationale is explained by Michael J. Griffith (“Activision Blizzard Q1 2009 Earnings Call Transcript”, 2009): “Beyond direct accretive revenue generation, this extends our shelf life, helping to insulate us from the used game market and in turn allowing us to hold pricing longer.”

79 This is codified in the Xbox Live Terms of Use: “All items purchased or rented from Xbox LIVE Marketplace, using the Web or your Xbox 360 console, are non-refundable. This includes subscriptions and all games, videos, and other digital goods. All sales are final” (“Xbox LIVE Refund Policy”, 2010).

person shooter PC games. The next-gen platform owners and leading game publishers conditioned players not only to welcome PDLC as a natural element of the Triple-A product: owners also integrated PDLC into every aspect of the Triple-A experience via marketing, PR and, in the end, the clever ingame integration of additional content.⁸⁰ The release of map packs, especially for the 'big hits' in the *Call of Duty* franchise, has become a marketing event in itself. Signaling to gamers that it is time to invest just a little bit more to keep enjoying the 'full game'.

To put this in a political economic perspective, as the next generation of consoles raises the bar in terms of production values, the process of commodification systematically creates significant material inequalities severely constraining the output (both qualitatively and quantitatively) of any Triple-A games other than publisher driven, capital intensive productions. The most troubling aspect of commodification is that the access to, or even worse, the production of any alternative mode of production not congruent with the dominant mode of production, is frustrated, seized upon or literally destroyed. In a capitalist culture the process of commodification is inherently self-perpetuating: "The process reduces the resources, the time, and the space available to alternatives, so that commodification is perceived not as a process of power but as the natural order, common-sense, taken-for-granted reality of social life" (Mosco, 2009: 144). Similarly, the formatting strategies of franchising and branched serialization have swiftly become an accepted, natural element of contemporary game culture. Game reviewers routinely speak of the "inevitable sequel" while PDLC offerings, especially for the biggest blockbusters, have become not so much taken-for-granted, but are eagerly anticipated by consumers and many game critics as 'part of the game'.

In summary, one of the dominant next-gen publishing strategies has become a process of launching new, preferably wholly owned, intellectual property early in a new console cycle, to subsequently exploit those franchises annually *ad infinitum* and to conservatively experiment with only a select number of new intellectual properties each year. In the next chapter I draw on political economic theory to argue that the logic of development, circulation and consumption of Triple-A franchises is best understood as, what I call, 'flow publishing'; the Triple-A game has become an unfinished commodity meaning that game franchises are set-up to provide publishers with opportunities to extend the act of consumption beyond the initial

80 Consider EA's strategy for *Dragon Age: Origins*, *Battlefield: Bad Company 2* (2010), and *Mass Effect 2* (2010). When bought at retail (instead of renting a game or getting it second hand), the game includes a code to download free DLC. In this way gamers will get online but also are familiarized with the process of acquiring DLC. Or as EA's John Schappert explains: "And so we've seen very, very strong uptick in downloadable content across all of those titles because we have: a, content available on day one for purchase; and b, we've seeded it with a bonus token of free content" ("Electronic Arts Q4 2010 Earnings Call Transcript", 2010).

point of sale, as well as across titles. Flow publishing, then, facilitates a consumptive flow of physically published franchise installments interspersed with well-timed PDLC offerings.

Chapter 3 - The flow publishing logic

The anatomy of the *Call of Duty* franchise demonstrates that the rules of play for Triple-A games are as much governed by a game's internal ludic properties as they are structured and alternated by a distinctive and very explicit market logic. A Triple-A game is a cultural commodity first and foremost and this has a structuring effect on its cultural form, giving way to two distinctive formatting strategies. To speak of cultural commodities is to speak of the process of commodification meaning that video games as cultural commodities are defined by their “exchange value” expressed through its (suggested retail) price, as opposed to an arrangement foregrounding the “use value” of games as art. To follow political economist Nicolas Garnham's (1990) argument on the interaction of capitalism and communication, these particular historical and materialist conditions have profound effects on the structure of the symbolic form, the mode of circulation, and to whom commodities are available.

Following this political economic line of reasoning, as this book aims to contribute to a deeper understanding of the ways in which economic forces shape the blockbuster video game, it is vital to question the changing nature of the Triple-A game as a cultural commodity. The commodities developed and published within the wider cultural industries have taken on new forms and new meanings. In the previous chapter, I argued that the hybrid next-gen publishing strategy signals the selling of physical games complemented by what one might call the 'maintenance of franchises' through branched serialization.

Game publishers create, as business executives and marketers tend to say, additional “touch points” with consumers: “They don't simply want to get a consumer to make a single purchase, but rather to build a long-term relationship with a brand” (Jenkins, 2006a: 63). Ryan (1991: 167) links branding to formatting arguing: “The capacity of the format to direct creativity operates partly through its personification in the producers and directors, and also through the (brand) name designed to cover the series of originals produced under its jurisdiction”.⁸¹ The process of selective content diversification and incremental extension helps game publishers to keep gamers “inside the franchise”, just long enough to get hyped up about the inevitable sequel. More importantly, this ongoing relationship can be commodified

81 Thomas Tipl, Activision Blizzard's Chief Financial Officer on *Call of Duty* as a brand: “[The] Call of Duty brand represents one of our largest long-term opportunities as the brand is one of the largest entertainment properties and is well-aligned with the fastest growing entertainment sectors, including online gaming” (“Activision Blizzard (ATVI) Q2 2010 Earnings Call”, 2010).

by game publishers who see the advent of PDLC as a significant complementary monetization option, as well as a way to increase customer loyalty by keeping in close contact with a consumer.

This chapter, then, will serve as a step up to the next chapters by addressing more in-depth how the Triple-A game's unfinished commodity form is embedded in a particular industrial arrangement. To ground my analysis of the unfinished commodity in a historical, critical and comparative approach, I will draw extensively on the work of French political economist Bernard Miège (1989). In his book *The Capitalization of Cultural Production*, Miège offers a set of principal logics underlying the production of culture and information. These logics correspond with several institutional characteristics underlying various cultural industry sectors such as the business model associated with a market sector and the general characteristics of cultural commodities—either “isolated individual works” or a “continuous flow” of commodities.

The work of Miège provides a starting point to provide a critical analysis of the logic of game production, distribution and consumption of the next-gen Triple-A console game by deconstructing the interaction between the Triple-A game's commodity form and the cultural game industry's institutional characteristics. I will use Miège's distinction between two principal logics—the publishing model (e.g. books, films, and records) and the flow model (e.g. radio and television)—to draw up the logic of, what I call *flow publishing*. The flow publishing model signals the circulation of additional content in-between sequels, such as downloadable content, content packs or expansion packs and denotes the dominant logic of development, circulation and consumption in the Triple-A segment.

The goal of this chapter is to lay bare the specificity of the Triple-A video game through a historical comparison with previous console cycles, and also, through Miège, by comparing the Triple-A logic to other sectors in the cultural industries, most notably the television and film industry in the pre-Internet era. Comparing the institutional practices constituting Triple-A video game publishing against post-classical Hollywood blockbuster movies aims to highlight the similarities between both modi of cultural production. My main goal is to prevent an ahistorical and overly essentialist reading of the Triple-A commodity form and its associated publishing logic as being truly unprecedented. While there are many similarities between the economics of the blockbuster movie and the blockbuster game, the latter does have its own publishing logic.

What is needed to critically examine the Triple-A game, is a conceptual toolbox—a critical language—which is theoretically informed and is positioned in such a way that it connects the historical, structural and material conditions of the cultural game industry to the

production, distribution and consumption of the Triple-A game. The notion of a 'flow publishing' and the Triple-A game as an 'unfinished commodity' are such critical concepts which question the taken-for-grantedness of the logic of commodification and consumption associated with contemporary digital play. The argument made in this chapter about the interaction between capital and culture and the effects of the capitalist logic underlying the Triple-A market segment, are familiar ones and, theoretically speaking, my approach is quite traditional. Purposely so, because, as I will argue below, the cultural game industry is, on a structural and institutional level, not radically different from other segments in the cultural industries. The work of Raymond Williams's ([1974]2005) on TV as a technological and cultural form, and Miège's (1989) commodity logics provide theoretical continuity. Similarly, the fundamental political economic characteristics of the game industry, as I will argue throughout this book, have remained largely unchanged over the last decades and seem to be solidly cemented for several years, if not decades, to come. In sum, in this chapter I will investigate the medium-specificity of the Triple-A game's unfinished nature by asking: How does the institutional logic of flow publishing compare to other sectors within the wider cultural industries?

3.1 A planned flow

Not all cultural commodities are created equal. A broadcast TV program in its commodity form operates according to a different market logic than a Triple-A game. While the revenue of the former is largely based on advertising revenue, the publisher of the latter commodity type traditionally derives its primary revenue from selling physical copies in a retail store. In this section I want to contribute to the understanding of cultural commodities as well as the process of commodification by pointing out that there are stark differences, not only among cultural commodities in general, but also among game commodity forms, for example the next-gen Triple-A game, and let's say, social network based 'social games' such as *CityVille* (2010) or *Mafia Wars* (2009). The latter category has publishers primarily deriving income from optional ingame transactions and to a lesser extent via advertising, or what political economists refer to as the "audience commodity" (Smythe, 2006).

The Triple-A publishing model stands for the continuous flow of a potentially never ending series of Triple-A games and associated additional content. The result of the institutional practice of extended commodification is a particular flow of commodity production, circulation and consumption, significant parts of which are planned and anticipated. Interestingly, this particular logic is not unlike other offerings of popular culture, such as television. Rooted in the institutional practice of television programming, the defining characteristic of television as a cultural form and a technology is a similar logic called "planned flow", as defined by Raymond Williams (2005[1974]: 91):

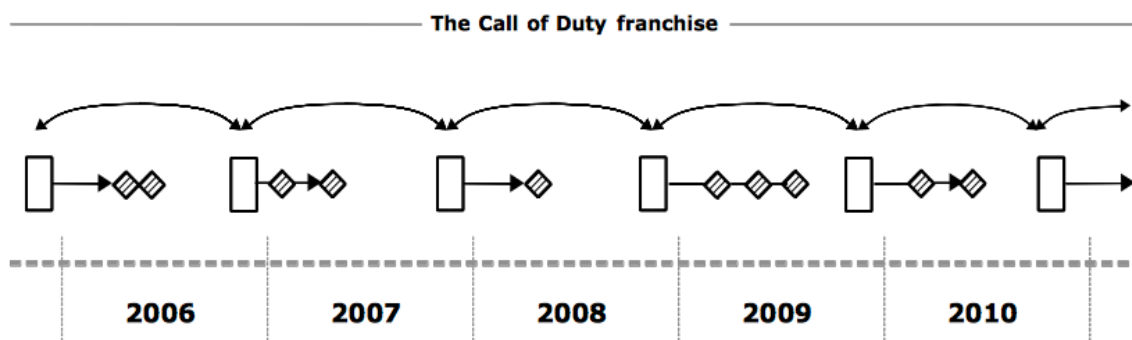
What is being offered is not, in older terms, a programme of discrete units with particular insertions, but a planned flow, in which the true series is not the published sequence of programme items but this sequence transformed by the inclusion of another kind of sequence, so that these sequences together compose the real flow, the real 'broadcasting'.⁸²

Serialized content (series and serials), as Williams observes, has been a familiar part of popular culture and thus an important characteristic of television as a cultural form.⁸³

82 In order to heighten viewer retention, as Williams explains, trailers for later shows and films are added to the flow.

83 This section is inspired by the work of Kline et al (2003: 48) who argue: "Thus, for Williams, analysis of television must appreciate the relationship between the structure of the commercial institution of television and the structure of experience that it brings to contemporary life. Williams' approach places in the foreground the historical constitution of media as institutional and cultural practices, and his analysis of television is thus one of the best accounts of the emergence of a mediatized marketplace."

Similar to television audiences 'retained' by a planned flow, gamers are retained in a game franchise. Figure 3.1 shows the planned flow of content for the next-gen installments of the *Call of Duty* franchise, the white squares representing sequels and the grayed out diamonds being map packs. Starting with *Call of Duty 2* (2005), the *Call of Duty* franchise shows a distinctive rhythm and a strong continuity in its publishing schedule. All physical next-gen installments are released in November and are strategically interspersed with map packs. The flow of *Call of Duty: World at War* (2008), the fourth installment in figure 3.1, demonstrates the most disciplined planning and shows a well paced cadence; offering map packs in all three subsequent quarters after the release of the physical game, up until the November release of *Call of Duty: Modern Warfare 2* (2009).



[Figure 3.1] *Call of Duty's* planned flow

Games are not developed, distributed and consumed in a vacuum and the Triple-A game as a technical object and cultural form shows many similarities to Williams' televisual concept of planned flow. Arguably the most explicit inspiration game industry executives drew from television programming seems to be the publishing of "episodic content". For example, rather than expansion packs, game publisher Valve labeled the *Half-Life 2* (2004) franchise extensions "episodes" (i.e. *Half Life 2: Episode One* (2006) and *Half-Life 2: Episode Two* (2007)). However, episodic content like Valve's has more in common with the franchising logic of serialization than with the branched serialization format. The *Half-Life 2* episodes do not technologically tie into the core game similar to map packs or expansion packs, and the episodes are positioned as economically discrete units. Moreover, the episode, as a format, has not been a significant economic or cultural factor in the realm of console games.

As previously indicated, despite sharing the temporal characteristics of the planned flow logic, the Triple-A game as a techno-economic-cultural artifact is—given its structural and

institutional foundation—decidedly different from television as a cultural form, which manifests itself on an economic and technological level. For one thing, the cultural game industry has seen, as of yet, very few other monetization options in the Triple-A segment other than the sale of content. As opposed to the television economy, the cultural game industry is not primarily monetized through syndication and advertisement. The former is primarily driven by the audience commodity, the licensing of television content and the sale of reruns (Fiske, 1987; Kompare, 2005, 2006; Prindle, 1993; Smythe, 1977), whereas the console segment primarily via selling content direct to consumers.

Because of the risky, singular revenue stream, game publishers and platform holders are looking for ways to drive down costs, increase operating margins via digital distribution and make revenue streams less seasonal and more predictive (e.g. through monthly subscription plans). In the sixth generation of dedicated consoles additional game content has been digitally distributed. However, the lack of physical storage room, viable distribution channels other than retail stores, and the absence of widely diffused broadband Internet connections hindered the distribution of additional game content such as map packs, serialized content, or ingame items.⁸⁴ Conversely, because of its technologically versatile character and the ongoing development of the networked environment, the next-gen console seems to be better positioned to integrate revenue streams and business models traditionally outside the realm of the cultural game industry. The underlying motive of these business practices is fueled by the need to create new, complementary revenue streams thereby intensifying the process of commodification and extending the reach of for-profit productions in ways previously either physically impossible or economically unfeasible. For game publishers, an additional reason to explore digital extensions are the higher operating margins (higher surplus value) associated with additional revenue streams such as player services and branched serialization. Through an integrated and pluralist business model, the content flows and revenue flows can be better managed and planned, but above all, they are more profitable.⁸⁵

Secondly, compared to other cultural commodities, the Triple-A commodity has a set of distinctive technological properties that speak to its unfinished nature. Game technology in

84 This is not to say that the industry did not explore such options. Game publishers continually explored ways to extend revenue streams beyond the first installment of a game and have been quite successful in providing game related products (e.g. strategy guides) and a myriad of game related services (Consalvo, 2007).

85 Consider the publishing strategy as explained by Thomas Tipl, Activision Blizzard's Chief Financial Officer, who wants to advance the branched serialization strategy into a more integrated model: "While a reasonably successful console game that sells, let's say more than three to four million units can deliver operating margins in excess of twenty percent, we see two to four times higher margins for PC online games, downloadable content, and value added services delivered online. Integrating all these monetization streams into a single franchise is the best formula for financial success. And we have the greatest opportunity to apply this strategy to our largest franchises" (Tipl, 2009).

general is modular in design and therefore relatively malleable as a commodity (cf. Bogost, 2006). As opposed to a TV show or a movie, which can be seen as 'fixed' texts, the Triple-A game can be broken down into various sized discrete units which can then be (re)packaged and sold. While individual installments of a TV series can be repackaged and sold, for example, as a season DVD box, individual TV episode are rarely broken down into discrete modules and (re)sold (Kompere, 2006). For example, there are few DVD boxes with only show openings or the option to download a paid-for package of parts of a show containing specific character appearances.⁸⁶

Driven by an industry which seeks for a competitive edge through constant innovation (Shippy & Phipps, 2009), game technology is in a constant flux and industry marketing material never ceases to stress this dynamic. Chapter 7 will reflect on the cultural game industry's perpetual innovation dynamic and link it to the Triple-A game's commodity form. What makes a Triple-A game decidedly different from both comic books, cinema and broadcasting, is the artifact's techno-economic foundation, operationalized through perpetual innovation and the proprietary nature of games and game hardware platforms. Yet, the innovative aura of the Triple-A game is anything but a technology driven affair and the process of extended commodification is not explained by economics or technology alone.

The never-ending story of what's beyond the horizon is one of the main discursive traits of those playing and discussing the big, expensive games for next-generation consoles. Continuous discussions on future events are one element of what Dovey and Kennedy label as "the dynamic of permanent upgrade culture" (2006: 52). The notion of an upgrade *culture* means that even though technological progress structures innovation in the game industry, there is both a business imperative behind the institutional practice of selling additional material, as well as a shared ideology of progress among consumers and industry actors. Vocal gamers, especially on one of the many online fora, 'demand' more material, just as there has been pressure from television viewers "for an extension of viewing hours" (Williams, [1974]2005: 95). As the Horse Armor meme goes to show, game publishers have to walk a fine line between exploitation and expansion. Too much, or even worse, too much of the same, at too high a price can potentially put off even the most dedicated collector.

The Triple-A gamer is not a unique kind of consumer. Similar to those who play Triple-A games, the dedicated fan of serialized entertainment is never "done" either. He or she might not only "buy into" a series, but extend the narrative of a text *ad infinitum*, for example

86 There are DVD boxes that feature specific character appearances in a show, for example the Saturday Night Live DVD boxes featuring best of material of one specific comedian.

through engaging in fan production (Hills, 2002; Jenkins, 1992, 2006a). That is to say, the feeling a gamer might have of there always being something better around the corner is rooted in the everyday reality of gamer discourse and practice. Again, this ties into the modular nature of games as software and their reconfigurative mode of engagement by users (cf. Raessens, 2005). While movies and books are relatively “fixed” texts, the Triple-A game is constantly added upon and is altered the moment a disc is put in the tray of a next-gen machine and a “zero-day” bug-fixing patch is downloaded.

Not only that, gamers, fans, journalists, PR managers and industry representatives all constantly fuel the (supposed) need for textual updates in the short term and technological progress in the long term. The debates and discussions concerning a franchise's potential, as well as the artifact's extension and transformation, have always been intertwined with the evolution of the Triple-A game's commodity form. At the same time, gamers do not act like the iconic pale-faced, green-haired characters of the game *Lemmings* (1991), who, without help or direction, walk off a cliff (or to the game store). The need for massive marketing campaigns shows that game publishers do not just easily sell heaps of content to gamers, regardless of quality or value. Contrary to other spheres of capitalist production, in the realm of cultural production the needs of consumers are not pre-existing. People rarely wake up one morning with the inexplicable need to own a particular game title they did not know the existence of, and thus, such desires have to be created. So the sole goal of marketing in the cultural games industry is to artificially enhance the craving for that Triple-A sequel.

So far, I argued that the next-gen incarnation of the blockbuster game transformed the discrete, primarily physically distributed game into an unfinished commodity. Political economic research on dominant publishing strategies in the wider cultural industries shed a different light on the nature of cultural commodities and their mode of circulation in the pre-networked era by putting those strategies in a wider perspective. Next, I will draw on political economic theory to further contextualize and theorize the flow publishing logic arguing that it facilitates a consumptive flow.

Miège's commodity fetish

Raymond Williams' seminal work on the flow of television is a first step towards a deeper understanding of the Triple-A game as a cultural commodity. The French political economist Bernard Miège (1989) implicitly builds on the work of Williams and is one of the few scholars who offers a critical perspective which can be used to put the logic of flow in an institutional perspective. In addition, Miège's work is useful in order to compare the audience commodity

structuring the flow logic to other types of cultural commodities. The French scholar provides a set of distinctive logics constituting the creation, circulation and consumption of different types of cultural commodities. This section, then, will build on the work of Miège and relate his taxonomy to the Triple-A segment. I will argue that the combined characteristics of what Miège labels the “publishing model” and the “flow model” merge into a new logic—the flow publishing logic. This logic is specific to the next-gen Triple-A video game commodity form. Before doing so, the theoretical foundation of Miège's research will be explored more in-depth.

As so many of his colleagues in the field of political economy do, Miège starts his argument by stressing the contested, complex and contradictory nature of the process of commodification. His work builds on, and at the same time critiques, the work of the Frankfurt School, most notably Adorno and Horkheimer's cultural industry thesis. The latter scholars took a particular interest in markets and the nature of commodities, for example in their serialized nature, which they lamented. In chapter 8, I will reflect on how the Frankfurt School's critical approach—questioning the ideology, politics and implications of capitalist cultural production—can be useful to understand the rationalization of cultural production and the standardization of the Triple-A commodity form. Miège's answer to Adorno and Horkheimer's supposed elitism was to provide a more diverse and inclusive taxonomy of five competing logics of cultural commodity production, based on a differentiation between the reproducibility of commodities and “the nature of the contribution of artists and technicians” (Miège, 1989: 12, cf. Steinert, 2003). I draw on the work of Ryan (1991), who also builds on critical theory, and Miège because of their complementary nature; they both focus on capitalist cultural production. Both scholars take an institutional approach to the cultural industries, addressing questions regarding labor and economic organization while taking the cultural commodity as the core unit of analysis. Sharing a similar critical political economic approach, the main difference lies in the scope of their analysis. Whereas Ryan primarily critiques the extent to which capitalist corporations—via a continuous push towards the rationalization of cultural production—structure the commodity form, for example, through formatting strategies, Miège is concerned with the techno-economic and socio-cultural specificity of cultural commodities. Miège also takes a comparative approach to differentiate between different cultural industry sectors and their institutional logics.

Based on the level of uncertainty and risk facing a producer of cultural goods and services as a result of the unpredictable nature of audiences, and the limits of the reproducibility of cultural commodities, Miège offers three “principal” types of commodities (1989: 20-50). Type 1 products are reproducible and do not involve cultural workers; for

example recording devices. The most prominent type 1 product, which is a crucial commodity in the cultural game industry, is the dedicated console. Type 2 products are also reproducible, but involve cultural workers. A video game (as well as a book, a recording, and a movie) is a typical type 2 commodity as it is characterized by a mode of industrial mass production.⁸⁷ Miège offers a third commodity type, that of the semi-reproducible commodity—think of craftwork or performances—but this type is not relevant for the cultural game industry which is based on codified artifacts (texts) rather than ephemeral services (performances as commodities).⁸⁸

One of the distinctive characteristics of the relation between the two main cultural game industry commodities, is the prominence of type 1 products in relation to the type 2 commodity, or what Miège calls the “interpenetration” of both types. In opposition to, for example, region-free DVD's being playable on all DVD players, the Triple-A console game (a type 2 commodity) can only be played on a dedicated and designated console (type 1 commodity). This development has historical parallels in the market for audiovisual products, for example the development of microgroove record and the tape cassette. Yet, businesses operating in the console segment of the cultural game industry build, through proprietary platform ownership, their core business model around the control of commodity circulation. Chapter 6 will give a critical analysis of this 'proprietary platforming strategy' vis-à-vis the Triple-A game. One of the most significant consequences of the game console's hardware/software integration is that any other mode of production outside a market mode—for example, non-market or artisanal modes of cultural production—is seriously constrained.

Next to these three commodity types, Miège makes a suitable distinction between five heterogeneous logics characterizing the development, circulation and consumption of

87 Note that this taxonomy should be perceived in its historical context (the mid 1980's); today's widespread forces of digitalization for example, allow type 2 producers to “mass customize” content to the extent inconceivable two decades ago (cf. Pine, 1993).

88 As play theorist Brian Sutton-Smith (1997) argues, performance is a property of play (and thus of gameplay), yet play as performance, for example a video game player playing *Guitar Hero II* (2007), is not a commodity in the same way a theater play or a music concert is.

commercial audiovisual products, two of which are relevant to the unfinished commodity.⁸⁹ Miège's taxonomy offers a broader and more precise conceptualization of the Triple-A commodity form and is particularly useful to better understand the Triple-A game's unfinished character. The first relevant logic related to the unfinished commodity is the publishing logic where cultural commodities are either sold as physical objects such as books, or as discrete services, for example movie tickets. In this model the publisher controls the production and circulation of cultural commodities and the producer's income is directly derived from the sales of isolated individual works. In order to lessen the uncertainty which is associated with the "great difficulty in mastering the conditions of valorization", cultural producers build catalogues of diversified products, thereby facilitating profitable hits in order to offset the investments in (always) unforeseen flops (1989: 43). Miège calls this the law, or dialectic, of "the hit and the catalogue". In chapter 8, I will come back to the issue of game publishers building product portfolios, what this means for the Triple-A game, its potential to become a hit and how this relates to issues of content diversity.

A second logic is the logic of flow production. This model is most akin to television and radio production and provides a continuous, daily flow of broadcast material. As I argued in the opening of this chapter, the notion of flow is based on the work of Raymond Williams. The ephemeral nature of watching live television, as opposed to watching pre-recorded shows, means that such shows have obsolescence built-in. In Miège's taxonomy it is the "programme planner" who presides over an "almost industrial organisation" which feeds the flow. As income is derived primarily from advertising, following Flichy (1980), another general

89 The five logics are by no means meant as deterministic frames but rather the result of various complex and contradictory industrial strategies. The five logics are those of 1) cultural commodity publishing, 2) 'flow' production, 3) printed news, 4) computer programming production, and 5) live performing arts (including sports events). The third and fifth logic are not directly relevant for a deeper understanding of the Triple-A game as the newspaper business operates under a decidedly different techno-economic and temporal logic compared to the Triple-A game, and the live and performative nature of sports and plays is equally distant from the domestic consumption practices associated with digital play. As Miège himself indicates, the five logics he describes are temporary characterizations and he positions the logics as describing new media. At first glance one might suspect that the fourth logic—computer programming production—might be a suitable category closely related to the contemporary cultural game industry. Yet, Miège's description is too broad for the sake of describing the 'pure-play' nature of console games. The computer programming production logic includes business and governmental sectors and genres as the serious game ("educational software"), data banks, and e-commerce ("interactive services"), spawning three distinctive product categories: 1) management software packages, 2) domestic software (home computer games, management and educational software), and 3) consumer Videotex services. Given Miège's French background, the inclusion of the third category is understandable, but it is the second category of domestic software, which could serve as a basis to gain a deeper understanding of the Triple-A logic. The characterization of the domestic software category and the computer programming production logic as a whole, seem more like placeholder categories and offer little theoretical insight beyond the descriptive. Miège does offer a hint of their future development: "the [computer programming] sector is currently developing its own structure and may either keep its specific features or develop according to the logic of publishing" (1989: 142-3). As I argue in this chapter, the various segments in the cultural game industry now feature various commodity types and different industrial strategies.

characteristic of the flow commodity is 1) the need to build a sustainable relationship with mostly homogenous audiences and 2) the serialized output of commodities.⁹⁰ As for the unfinished commodity, it is particularly the latter characteristic that mimics the televisual flow logic. Figure 3.1 illustrates the operationalization of the *Call of Duty* franchise's flow type circulation logic.

It should be noted that Miège's analysis precedes the dot.com bubble. Obviously, the TV business has been far from immune to technological and economic changes (Spigel and Olsson, 2004). More to the point, as any other sector within the wider cultural industries, the television industry is in flux. On the one hand audience segmentation techniques have significantly changed the political economy of TV broadcasting over the last decades (Andrejevic, 2004; Meehan, 2005). On the other hand the lucrative commercial exploitation of both re-runs (Kompare, 2005), DVD boxes (Kompare, 2006; Skopal, 2007) and the ability to download or stream TV shows through the Internet, are all developments which, in various degrees, are able to break the flow of programming. Still, the reliance on advertising revenue seems, as of yet, not to have lost its luster.

Also changing the televisual commodity form is the advent of IPTV and 'on-demand' distribution models. There is a similar trend in the wider cultural industries, for example streaming music (e.g. Spotify), the rise of e-books (Amazon's Kindle device), and movies (a Netflix subscription instead of a visit to Blockbuster). Games are different in that they are not fixed texts, but they are the same in terms of their shift from physical objects to online, digital services. Considering the higher profit margins on full game downloads (cutting out the costs of physical distribution and retail), the hybridity of the next-gen Triple-A game is indicative of the complexities associated with the move towards a fully digital environment. Yet, despite the obvious institutional and technological challenges associated with this transition, in many respects, the hybrid nature of the next-gen Triple-A game shows that game publishers are at the vanguard of this move towards digital distribution and online services. However transitory the next-gen Triple-A commodity form may be, from the start of the seventh console cycle onwards, it has been a fully accepted, institutionally integrated, and economically viable construct.

90 At least, in commercial markets. Advertising and the flow logic has been subject to special regulatory regimes, even in the U.S. In other countries, for example the Netherlands where the public broadcasting system is still quite productive, television programming enjoys heavy public and state subsidy. Needless to say, while there are constant game related regulatory push backs, for example violent video game related policies, direct state intervention similar to the television industry, especially in terms of subsidies or sponsoring, is very rare and far from institutionalized (cf. Kutner and Olson, 2008).

3.2 Both flow and publishing

Almost two decades later, picking up on Miège's claim, Hesmondhalgh (2007: 244-6) states that the game industry might be a “significant new entrant in the cultural industries sector and digital games are an interesting and important cultural form”; they do not, however “represent a significant shift in the prevailing structures and organisational forms of the cultural industries generally.” Although I agree that the major market segments constituting the cultural game industry indeed show a strong continuity in terms of concentrated ownership, I disagree with Hesmondhalgh's interpretation of Miège in relation to the cultural game industry. Hesmondhalgh (2007: 244) is right when he states that the industry, *in general*, follows the publishing or editorial logic, meaning that: “texts are sold on an individual basis to be owned, a publisher/producer organises production, many small- or medium-sized companies cluster around oligopolistic firms, and creative personnel are remunerated in the form of copyright payments”. However, I would argue that the cultural game industry developed a logic of its own. More importantly, there are substantial differences between the various cultural game industry's market segments. Something which will be discussed in depth in the next chapter. Compared to the market segment of serious games or the casual games segment, the Triple-A segment might be relatively established, it still is in a state of flux. Therefore, as I indicated earlier, the Triple-A logic I am about to describe should be seen as an emerging rather than a stable model.

Given the technological disruptions at the time of Miège's writing, the French scholar recognized that the publishing logic and the flow logic would likely change, or even converge. As for the game industry specifically, Kerr (2006: 61) acknowledged the convergence of the two models, but only within the MMOG market segment: “[...] initially there is a need to sell product directly to the consumer but in addition there is a need to supply an ongoing support and content service to consumers, and quality and speed of distribution is key”. Note that the Triple-A segment has a different political economy compared to the MMOG segment. The latter segment has a mixed revenue stream, deriving income from the sale of physical copies, subscriptions, advertisement, and/or micro transactions.⁹¹ MMO games tend to be more PC-centered and therefore this genre adheres a slightly different techno-economic logic as the PC is not a proprietary hardware platform like the console. That said, I would argue that the

91 From the perspective of a game publisher, one could argue that the MMO genre is ahead of the Triple-A genre in terms of implementing additional revenue streams as well as conditioning users to purchase digital goods, accept advertisements and pay for monthly subscriptions and/or added services.

combined characteristics of the publishing model and the flow model constitute the next-gen Triple-A publishing logic.

Explicitly drawing on Miège's taxonomy, the conceptualization of the Triple-A's distinctive flow publishing logic emphasizes the historical continuities in which the logic is grounded. As Hesmondhalgh (2007) indicates, the cultural game industry exhibits various institutional, ideological and organizational continuities. Given the rapid pace of cyclically upgraded hardware platforms, the medium's inherently innovative use of technology and game culture's forward looking discourse, it is tempting to point towards the continuous industrial turnover and turmoil as a sign of fundamental structural changes. While the Triple-A game in its next-gen commodity form is indeed truly new, the associated publishing logic is a combination of two very familiar institutional logics. The recognition of the emerging model of flow publishing is meant to accentuate the unfinished nature of the Triple-A commodity as well as the material and temporal constancy of the process of commodification.

How does this logic, then, relate to the Triple-A's commodity form and its formatting strategies? As shown in figure 3.1, the flow publishing logic is the result of the combination of branched serialization and franchising, and it stands for a particular publishing rhythm. The logic follows both Miège's (1989) publishing model and flow model in various ways. First, the dialectic of the hit and the catalogue is still very much alive in the Triple-A segment, but with a small twist. Triple-A catalogues are not so much based on heterogeneous genres as they are built of serialized hits. If newly launched IP—as game franchises are often referred to in industrial discourse—is not a hit in the first instance, it will not be franchised and will not become part of the portfolio. Contrary to the scattershot approach of book publishing—publishing a large and diverse catalogue of books in the hope of a bestseller—the Triple-A portfolio is a more streamlined production comprising of 'series of hits' and nothing else. The two leading Triple-A game publishers, Electronic Arts and Activision Blizzard, have been upfront about their streamlining strategy as it pertains to the seventh console cycle, which basically boils down to a smaller portfolio consisting of bigger properties in terms of production values and marketing budgets.⁹²

Extending the book publishing versus game publishing comparison allows us to hone in on the specificity of the video game as a commodity and its institutional embeddedness. Compared to the relatively high number of pluralistic book publishers operating both nationally and globally, there is a small number of transglobal game publishers associated with

92 In a presentation for institutional investors and business analysts, Electronic Arts CEO John Riccitiello (2010) announced that the number of titles from (fiscal year) 2009 to 2011 would drop from 67 to 54 to 36 while at the same time the revenue per game is expected to rise from \$55 million (2009) to 84 million (2011).

Triple-A production and circulation. Also, the minimum production costs of a next-gen Triple-A game are considerably higher compared to those of a book. But most of all, both the technology of the paper book and its commodity form are quite stable compared to the rapid pace of technological change of game technology, whose pace of development is bound to that of cyclically updated hardware platforms, rendering games obsolete in a matter of months.⁹³

To come back to Miège's taxonomy, what sets the Triple-A's flow publishing logic apart from publishing and flow logic and what differentiates a Triple-A game from a TV-program or series, is that the Triple-A game's flow of published sequels has a distinctive technological dimension. Triple-A games are hosted on cyclically upgraded consoles that drive publishers to invest heavily in research and development of advanced 3D modeling technologies, software programming techniques and hardware upgrades.⁹⁴ Taken together, these techno-economic elements not only explain why game publisher portfolios are somewhat slim, they also begin to explain why the Triple-A's business model, its publishing logic and the Triple-A commodity form are much closer to the political economy of television and film. One characteristic of the flow logic of live TV programming (e.g. news, events and sports) in the pre-networked age, is its built-in obsolescence because of its ephemeral dimension. The Triple-A game's flow publishing logic has built-in obsolescence as well, but this is as much a temporal characteristic as it is a technological one.

Instigated by the process of commodification, Triple-A game publishing should be seen as both an experiment and a power struggle. The flow publishing logic should be seen in the same light. For game publishers, the first part of the next-gen console cycle is a moment to tinker with the video game's traditional commodity form: a discrete, stand-alone boxed retail unit. On the one hand, given the modular nature of game technology as software, developers can cut a game into pieces (e.g. multiplayer maps, additional story segments, or weapons and game modes), and extract as much value as possible from these complementary components. On the other hand, this kind of extension of the artifact through branched serialization can be challenging for publishers as they are trying to find the 'sweet spot' between saturation and

93 The recent diffusion of e-books and e-readers might change the stable format of the book. E-books, in theory, can be updated via these networked devices and additional material can be added beyond the written text, such as audio and video. Also there is the option to add interactive elements, or additional goods and services such as author interviews, annotated versions et cetera. It will be interesting to see to what extent the commodity form of future e-books will resemble that of the next-gen Triple-A game, given that both commodities are platform dependent.

94 The franchising strategy is a crucial element in this process of "planned obsolescence", combining predominantly hardware innovation related "technological obsolescence" with "psychological obsolescence" because of changing product styles (Slade, 2006).

extension. It represents a power struggle between the triad of gamers, game journalists, and the cultural game industry.

This is where political economy comes in and demonstrates the value of the critical approach of both Miège and Ryan. The logic of capital seems invisible, uninteresting or inevitable to those most accustomed with its effects. Political economic theory, then, is vital to account for the techno-economic properties, which would, in the field of cultural production, lead to supposedly disruptive and, in the eyes of some, even epochal transformations. I would like to argue to the contrary: it is a critical political economy of the media which, above all, affords a historically informed, holistic and normative approach towards the study of games and the game industry. By using the continuity and change dialectic, accounts such as this one are always inherently historical. Many a critical political economic analysis of the media stresses changes in the dominant modes of cultural production and circulation, yet always against the backdrop of the continuity of dominant patterns of the commodification of content and concentrated global media ownership (Meehan, Mosco & Wasko, 1993; Hesmondhalgh, 2007). The combination of the flow logic and publishing logic represent such continuity. The branched serialization strategy should be seen as an example of the adaptive nature of capitalism; it is an ongoing process of commodification that is gradually integrated in the cultural game industry.

The advent of digital distribution and the changing nature of the Triple-A commodity means that longstanding intra-industrial relationships, for example between retailers and game publishers, are altering fast and sometimes even come to an end. For example, despite the promises of digital distribution—distributing games at lower costs—there is a powerful incentive for offline retailers to stall the introduction of digital distribution of complete games and additional material. The next chapter will shift attention from a discussion of the Triple-A game's commodity form to the game industry, particularly. As social geographer Jennifer Johns (2006: 152) observes: “there is little academic attention paid to the organizational structure of the video game industry”. The central argument of the next chapter is motivated by the need to talk with greater clarity and deliberation about 1) inter-industry relationships and the relative position of the Triple-A market segment in relation to other segments of the cultural game industry, 2) the position of the game publisher within a segment, and 3) the concentration of ownership in the Triple-A market segment. I will argue that the cultural game industry is anything but a monolithic apparatus that adheres to one specific set of rules. For one, there are multiple industry market segments that have different ownership structures and in turn give way to different format strategies. Or, to be more specific, many key industry characteristics such as the primacy of a revenue model based on the sales of physical goods,

and the industry's seasonal revenue stream pertain particularly to certain market segments. The Triple-A market segment is such a specific market segment with its own set of institutional practices, power relations and formatting strategies.

Chapter 4 - The Game Value Chain

A political economic perspective is key to theorize the implications of the process of commodification and deconstruct the institutional logic of flow publishing. As argued in the previous chapter, the Triple-A game's unfinished commodity form signals a newly emerging type of cultural commodity. One that is continuously extended through sequels and complemented by additional paid-for downloadable content. Yet an investigation of the Triple-A commodity form and its political economy is incomplete without paying attention to “the structures of institutions, power and production” (Mansell, 2004: 98). In other words, a critical analysis of the industrial actors should examine the development and circulation of Triple-A games and their intra-industry power relationships.

To understand the implications as well as the taken-for-grantedness of the ongoing pressures towards commodification, this chapter will go on to explain how the next-gen Triple-A video game as a techno-economic-cultural artifact, adheres to a particular institutional logic, one which corresponds to a mode of production and circulation best summarized as highly rationalized (Ryan, 1991). Apart from the cultural commodities' “general characteristics” discussed in the previous chapter, political economist Miège (1989: 145-6) offers a set of institutional characteristics further describing the “publishing” and “flow” models. These five characteristics are 1) the central function of the producer, 2) the economic organization, 3) main source of income, 4) market characteristics, and 5) creative professions involved in production. Exploring these five features helps to gain a deeper understanding of the nature and implications of for-profit cultural production.

In this chapter and the next, I will elaborate and expand upon these characteristics and relate them to the flow publishing logic and the Triple-A commodity form. I will start this chapter by arguing that the game publisher holds a vital position as the main institutional agent both guiding and financing the various creative professions involved in game production. In addition, game publishers decide which games are published by setting up the framework for future iterations in a franchise, a process one might call “planning the flow”. The institutional position of game publishers is heavily dependent on platform holders and retailers and together these industrial actors constitute the Triple-A market segment.

To contextualize the cultural game industry's complex and oftentimes contradictory institutional practices, I will once again draw on political economic theory to provide a critical, holistic, historical and normative outlook on the production and distribution of the blockbuster

video game. This line of argumentation harkens back to Mosco's interpretation and definition of the political economy of communication: "the social relations, particularly the power relations, that mutually constitute the production, distribution, and consumption of resources, including communication resources" (Mosco, 2009: 24). Central to my argument in both this chapter and the next is the observation that the evolving nature of the Triple-A game cannot be understood without a discussion of the institutional composition, power distribution and practices of those industrial actors advancing the logic of flow publishing. Following Mosco, this perspective inevitably turns to a study of the articulations of structural and processual power. To that end, this chapter will provide both an inter- and intra-industry perspective and will discuss the political economic specificity of the power relations among those industrial actors affiliated with the production and circulation of next-gen Triple-A games and compare them against similar market segments in the core cultural industries.

Next to critical political economy, I will draw on insights from media economics and management studies, theories rooted in neo-classical economics. In this chapter the concept of the "value chain" will be introduced to distinguish between the 'core cultural game industry', and the 'support game industry', as well as to identify the hierarchies of power among relevant industry actors within the Triple-A segment. The next chapter will consider the economic organization of those industrial actors involved in the Triple-A model of flow publishing, showing strong continuities in terms of concentrated corporate ownership.

By contextualizing and analyzing the Triple-A segment's organizational arrangement it becomes clear that the flow publishing logic not only stands for a particular publishing arrangement; it also signals a particular set of institutional practices related to the production and circulation of Triple-A games. These practices are best described as top-down, well planned, and typical for blockbuster production, requiring significant upfront capital investments. This chapter serves as a step-up to chapter 6 and 7 which argue that the economic organization related to the flow publishing logic is one in which the publisher wields power through a capital intensive and increasingly rationalized mode of production. Chapter 8 further discusses the rationalization of cultural production as the practice of planned flow has a profound effect on the Triple-A's commodity form. The next section will further limit the focus of this book and determines which stakeholders are part of the, what I theorize as the 'core game industry', and which are part of the 'support game industry' in order to differentiate between a set of institutional stakeholders which together constitute the core game industry and the console market segment.

4.1 The Triple-A market segment

It is fair to say that the game publisher is the key institutional actor within the Triple-A market segment if only because of its ability to decide whether or not to initiate for-profit cultural production. Yet, next to starting projects by financing them, key institutions in the core cultural industries go above and beyond the production of cultural artifacts. They have the final say over a media product's eventual distribution, again by financing its marketing, manufacturing and shipment. In the television industries that key player would be a (broadcast) network (Gitlin, 1983; Litman, 1979), in the music industry the "labels" (Hesmondhalgh, 1998; Negus, 1992), and in Hollywood the key institutions would be the "big studio's", also known as "the majors" (Stringer, 2003; Wasko, 2003; 2005). The game publisher, then, holds this vital role in the cultural game industry. Even though the Triple-A game has become a hybrid commodity, the packaged goods business relies on the effective physical distribution of goods. Transglobal game publishers, such as Electronic Arts and Activision, invest heavily in a physical distribution network that allows them to ship millions of units all over the globe in a matter of weeks.

The game publisher's institutional position is largely based on available capital, a functional and effective distribution infrastructure, and a broad portfolio of intellectual properties.⁹⁵ Power, in the context of this book, means first and foremost power within an industrial context. Game publishers are the primary industrial actors who have the ability to shape the Triple-A's commodity form as well as to influence the conditions under which these commodities evolve. Suffice it to say, a publisher's power does not equal guaranteed profits or any sort of absolute power over how consumers derive meaning or pleasure from a game. Rather, game publishers have become the primary initiators of Triple-A production and have gained a crucial position deciding what gets published, when and how. That said, while game publishers are largely responsible for the implementation of specific formatting strategies and thus the commodity form, it is the platform owner, Microsoft or Sony, who has final say over the techno-economic properties of the next-gen Triple-A game.

For Triple-A game publishers, wielding capital not only means the ability to fund production and circulation, but also the management of intellectual property, which have become valuable capital in itself. Think of copyright over franchises and brands, but also patents, trademarks and proprietary tools, game engines, delivery/payment methods and

95 Based on research on the British game industry, Grantham and Kaplinsky (2005: 206) assert that "in absence of public funding" as is common for film and television productions, actors in the game industry can access four sources of funding: private investors, venture capital, banks and flotation.

project management methodologies. Dymek speaks of an “IP turn” characterizing the current cultural game industry “where core value creation is seen through the prism of ownership and management of IP rights” (2010: 81). The flow publishing logic, and the franchising formatting strategy in particular, is highly dependent on a game publisher's ability to act as a portfolio manager and to protect and strategically manage the intangible assets associated with Triple-A game production and circulation. In practice, so called “wholly owned intellectual properties” have become a prerequisite for game publishers to control the flow of the franchise.⁹⁶ As such, next to capital investments, intellectual property ownership and management has become a source of power (as much as a liability) for game publishers.

The “IP turn” is indicative of a wider shift in the globalized and concentrated cultural industries, which rely heavily on the exploitation of intellectual property (Bettig, 1996). Political economists Curtin and Streeter (2001: 228) pose that “media corporations are forging innovative strategies to deal with this new era of flux”. The media industry's focus shifted from “the control of communication conduits to the control of intellectual property, or, as some would put it, a shift from hardware to software” (ibid). Signaling the hybrid character of the Triple-A commodity form, the dedicated nature of the game console is indicative not so much of a shift from hardware to software, but of a further integration of the material and the immaterial. While the creation, exploitation and control of intellectual property is the main source of revenue for game publishers, it is the convergence of game hardware with game software that defines the techno-economic logic of the Triple-A cultural game industry. This specific institutional arrangement directly affects all industrial actors within the Triple-A segment.

While I will argue in this chapter that the game publisher indeed plays a vital role and that its position of power only seems to increase as the concentration of ownership rises, the game publisher's position of power is also a relative one. Similar to other market segments in the wider cultural industries, the cultural game industry is characterized both by intra-industry dependencies and rivalries, as well as considerable conflicts of interest. Developing and distributing a new TV-series, a song or album, a movie blockbuster, or a Triple-A game, can be compared to a team sport in which every individual player (i.e. institutional actor) plays his/her own role. For one player to stop participating oftentimes means that the game is over. For starters, platform holders utilize their proprietary platform strategy to, on the one hand, limit the number of games available on their respective platforms, and on the other hand to exploit

96 Dymek (2010: 88) argues that game publishers leverage intellectual property “to guard these precious and successful titles/brands from competitors” and use them as “defence shields”.

newly emerging consumption practices such as the Triple-A game's potential for a consumptive flow. A game publisher, on his part, can make or break a product by deciding to launch a product with a big 'marketing push'. Yet, without a fully vertically integrated industry in which game publishers control both the production as well as end-point distribution and sales, there are no guarantees for success. If major retailer chains, for example Walmart or GameStop, refuse to stock a title and get in the way of a game publisher, a game publisher potentially loses out on a very large segment of the U.S. market.⁹⁷ Similarly, a platform holder might delay manufacturing or in any other way interrupt the commodity flow.

To be able to delineate which industrial actors are part of the Triple-A business I will first argue that the Triple-A business is best seen as a distinctive market segment of its own. Section 4.2 will provide an overview of the different institutional actors within the Triple-A segment and their relative positions. Academic authors may take a rather generic approach to the classification of games. Even though some authors are careful in defining their object of research, talking of specific titles or genres, the underlying techno-economic framework from which these objects emerge is rarely discussed. As I will argue in this chapter and the remainder of this book, the flow publishing logic corresponds to a specific intra-industry power arrangement and a corresponding mode of development, circulation and, arguably, consumption.

For those who differentiate between different game forms from an industrial perspective, market segmentation is a common way to distinguish industrial sub-sectors.⁹⁸ In most cases, market segments are named after their respective hardware platforms. For example, Dmitri Williams (2002: 44) distinguishes between "three separate but related" market segments; consoles, handhelds, and PC games.⁹⁹ While at the turn of the century such a distinction made sense, the current proliferation of both hardware and software platforms challenges Williams' streamlined distinction. Think, for example, of Apple's iPhone as a handheld console (and hardware platform), or a software platform such as Facebook.com. Many browser based games, such as games published via Facebook.com, are platform independent. Although the majority of players might use their PCs to play, for example, a

97 Of course, if an American consumer truly wants to acquire a title, he or she would be able to buy a game online (e.g. via Amazon.com), or rent it via Gamefly.com. According to figures of Pachter & Woo (2009), in 2008 Walmart and GameStop together made up 50% of the PC and console software market share.

98 The application of the "market segment" concept has its roots in marketing studies and consists of both consumer and industrial market segmentation (cf. Wedel and Kamakura, 2000). Following Kerr (2006), throughout this book I will draw on the latter concept.

99 An OECD (Organisation for Economic Co-operation and Development) report on the "online computer and video game industry" singles out two "main segments", being the "console off-line (73%) and PC-offline markets (17%)" (Beinisch et al., 2005: 7).

popular social game such as Zynga's *CityVille* (2010), the majority of networked devices with a web browser allow access to the game as well. Following William's classification, *CityVille* fits all three segments as it can be played on an Internet enabled smartphone, a next-gen console (through the browsers integrated in the Playstation 3 and Wii), and of course on virtually every tablet, laptop, netbook, or desktop computer.

In one of the few political economic analysis of the business and culture of digital games, Aphra Kerr (2006, 52-61) argues that market segmentation is still a relevant analytical tool. She acknowledges the weaknesses of platform-based segmentation and builds on Williams' segmentation by mixing hardware platforms and genres, and she "takes games themselves" as the organizing principle for defining market segments (ibid: 53). Kerr's four market segments are the console segment, standard PC games, MMOGs and mini games, which are then grouped according to four characteristics: 1) market concentration, 2) revenue model, 3) openness of hardware system, and 4) the software production process. This detailed segmentation distinguishes between two games that, at first glance, have the same look and feel, but belong to a different market segment.¹⁰⁰

As Williams' paper and Kerr's book are published during the sixth console cycle (1998 - 2008), their analysis is based on a time period that is best described as "the pre-networked era" during which console gameplay took place mostly offline and the majority of games were distinct units which were physically distributed (Gallagher & Park, 2002). Even though Kerr's division is able to grasp the intricacies of the various sub-sectors of the cultural game industry, I would argue that the next-gen console cycle changed the segmentation of markets once again.

Besides a game's host platform, a game's commodity form and its associated formatting strategies should be additional characteristics to delineate among market segments. For the purpose of this book I propose to build on Kerr's segmentation in a way that reflects those games available after the start of the next-gen cycle and divide the overall dedicated video game segment into three separate market segments: 1) pre-networked console games, 2) networked arcade games, and 3) next-gen Triple-A games.¹⁰¹ The first

100 For example, if one looks at games published for handhelds devices, the political economy of games published on the Apple iPhone is considerably different from games published for the Nintendo DS. Consider the casual puzzle game *Peggle* (2007), which was physically published for the DS on a cartridge and came with a suggested retail price of \$30, while the iPhone version (2009), which offers the same core gameplay, is digitally distributed for five dollars at most. There are differences in its mode of play as well. The DS version is operated by the stylus, whereas the iPhone version is operated by touch.

101 Given the changes in the cultural game industry as a whole, all Kerr's segments (i.e. handheld console segments, as do the PC games, MMOG and mini-games segment) need to be revised. As my argument mainly concerns the next-gen Triple-A game, such a task falls outside the scope of this book.

market segment corresponds with Kerr's description of the original console segment. The pre-networked console segment consists of 'legacy games'—games still being published during the next-gen era (post 2005) for pre-networked consoles. In practice this means Triple-A games published for the sixth generation of hardware, particularly the Playstation 2.¹⁰²

Opposed to previous hardware cycles, seventh generation consoles host two major formats, the Triple-A game, and by lack of a better term, 'networked arcade games'. The latter commodity form concerns games published via Xbox Live and Playstation Network. The networked arcade game is thus different because of its principal distribution mechanism that is purely digital as well as its production process. They typically are less complex games with smaller budgets because of smaller development teams, shorter development cycles and drawing on different formatting strategies.¹⁰³ The Triple-A game's franchising and branched serialization formatting strategies are far less pervasive for networked arcade games. Compared to Triple-A games, the networked arcade game is often based on original intellectual property and many are developed by independent developers. The level of concentration of corporate ownership of game developers in the networked arcade segment is lower compared to the Triple-A segment. Therefore, the market segment of networked arcade games falls outside the scope of this book and will not be discussed here.

Because of their stable and relative homogenous output, I would argue that those industrial actors involved in the development and distribution of next-gen blockbuster games together constitute an industrial market segment. Compared to other market segments within the wider cultural game industry, the Triple-A segment is a relatively stable and mature market. A small number of incumbents, which are either platform owners or third-party game publishers, have dominated the segment since the 1980's. While the last decades saw plenty of new entrants developing console hardware (e.g. Nec, Philips, Sega, Atari, 3DO, Atari), each console cycle typically saw a maximum of three suppliers (Schilling, 2003), leading up to the sixth and current generation which, as of Sega's downfall as a platform holder in 2001,

102 The sixth cycle overlaps with the seventh and the Playstation 2's installed base is, up until 2010, still the biggest one compared to any other console. Although the Nintendo Wii has a slightly different set of market characteristics, I would add the Wii to the first market segment as well. The political economy of the Nintendo Wii adheres to a model that is more akin to the publishing logic. Nintendo may have profited from the franchising strategy like no other game publisher in history. However, the strategy of branched serialization is not a format used for Wii games. In addition, blockbuster games published for the Nintendo Wii have 1) a differently product life cycle that is far more extended than the relatively short product life cycle of a Triple-A game, 2) Nintendo is by far the dominant (first party) publisher on its own platform, and 3) Wii games are far cheaper (in terms of production) compared to next-gen HD games.

103 Networked arcade games also have a different revenue model. For example, there are instances of non-profit releases on Xbox Live Arcade, such as the game *Aegis Wing* (2007), which was available for free to Xbox Live members in North America. An example of a 'semi-for-profit' title would be the puzzle game *Chime* (2010), published on Xbox Live. *Chime* is an initiative of OneBigGame, "the videogames industry-wide charity initiative", and a large percentage of the games profit goes to selected charities.

affirmed the now dominant position of Nintendo, Microsoft and Sony.

Furthermore, there is an equally select number of game publishers. The 2009 Top 20 of game publishers shows a relatively small number of independent new entrants over the last decades (Wilson, 2009). Given the hit-driven and winner-takes-all nature of blockbuster production, a topic that will be picked up in chapter 8, the segment historically had, and still has, a very high barrier to entry. Traditionally, Japan has been a fertile ground for game production (Storz, 2008). Japanese publishers such as Atlus, Namco Bandai, Capcom, Konami, Sega and Square Enix all have long histories and primarily grew out of mergers and acquisitions.¹⁰⁴ In the West there is a similar pattern, where apart from a subsidiary of a media conglomerate (Warner Bros Interactive, 1995), the 1990's gave birth only to third-party publisher Take-Two Interactive in 1993. More recently in 2007, Viacom's subsidiary MTV Games was formed which after four years went out of business. However, these new entrants are far from new to the cultural industries and the potential 'gains' of new blood have been offset by a far larger number of publishers merging or going out of business altogether. In sum, compared to other market segments in the cultural game industry, the Triple-A segment is relatively stable and highly stratified.

For the remainder of this book I will concentrate on the next-gen Triple-A segment, which is characterized by blockbuster games, published on “closed” next-gen platforms by a small group of game publishers exploiting the logic of flow publishing. The substantiality of the next-gen Triple-A segment is akin to its mainstream status and its capital-intensive mode of production.¹⁰⁵ The format's stability is guaranteed because the game console is a standardized and thus a relatively stable piece of technology. Following Kerr's four characteristics (market concentration, revenue model, openness of hardware system, and the software production process), the homogeneity of the segment is a result of the high level of market concentration among all industrial actors in the market, the segment's uniform revenue model, the closed (proprietary) nature of console hardware, and the methodical software production process.

One of the consequences of the Triple-A segment's high barrier to entry is a specific market structure. Among many others, media economist Albarran (2004) stresses the usefulness of a macro-economic approach to define market structures. He offers four types of market structures—monopoly, oligopoly, monopolistic competition and perfect competition—

104 Storz (2008: 1483) notes that the Japanese innovation pattern “contrasts to the Silicon-Valley-model of academic start-ups”.

105 In terms of worldwide sales, next-gen consoles represent billions in revenue; in 2008 the Xbox 360 sold \$4.6 billion worth of games, the Playstation 3 sold 62.4 million copies generating 3.5 billion in revenue (Pachter & Woo, 2009: 124-9). In comparison, the Wii generated seven billion dollars, while PC sales totaled \$2.4 billion. Another comparison to illustrate the segment's volume is to compare 2008 net revenues (in the U.S.) for next-gen titles, totaling \$4.3 billion, to book sales (\$10 billion), and or music sales (\$8.2 billion).

which aid in comprehending intra-industry relationships, especially transglobal media firms. In the ongoing quest for growth in operating income, shareholder value and corporate expansion, the core cultural industries are characterized by concentrated ownership structures; many of them are oligopolies—markets controlled by a small number (three to five) of institutional actors.¹⁰⁶ Rather than competing with each other, media moguls tend to cut the cake, aiming for overall industry profits rather than creative competition.

In order to profit from economies of scale, game publishers and platform holders take advantage of their access to capital by investing in capital-intensive productions thereby raising the barriers to entry for competitors. Next, I will introduce the concept of the “value chain” to see how the Triple-A segment qualifies as an oligopoly and what this means for the Triple-A commodity form. As we have seen in this section, it is the lack of competition, the firm grip over a product portfolio (i.e. IP), as well as, in the case of branched serialization the control over the distribution platform, which particularly grants publishers and platform holders a disproportionate amount of power.

106 Consider, for example, the case of Viacom’s conglomerate entity MTV, which has a monopoly in music programming (Banks, 2005). Political economic inquiries into the U.S. television industry show that deregulation not only directly leads to industry concentration (Meehan, 2005), it stifles a free market.

4.2 Who is in and who is out?

In this section, both the market structure and the intra-industry relationships of the Triple-A segment will be analyzed by combining neo-classical media economic theory with a critical political economic approach. A common concept within neo-classical economics is the “value chain”, which stems from business management studies and was popularized by Michael Porter's (1985) seminal work *Competitive Advantage: Creating and Sustaining Superior Performance*. Apart from offering a set of conceptual tools to guide a structural analysis of an industry, as its title suggests, Porter's main aim is to help individual firms seek out their competitive advantages. By using the value chain model a firm could seek out its competitive scope, the extent to which a firm is able to differentiate itself, and how to gain cost advantages.

Typically, the value chain is a linear conceptualization of a commodity's production cycle, starting with pre-production and production, followed by the distribution, marketing and retail phases. In other words, the concept “describes the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use” (Kaplinsky, 2001: 4). In his original overview of the model, Porter (1985: 36-50) uses a slightly different terminology, and speaks of “five generic categories of primary activities involved in competing in any industry”, namely inbound logistics, operations, outbound logistics, marketing and sales, and service. It should be noted that Porter's original operationalization of the value chain concept draws primarily on case studies featuring the manufacturing of physical goods, such as paper, automobiles, and semiconductors. Over the years, many scholars from fields such as business management studies, innovation studies, media studies, and game studies took up the approach and re-conceptualized or complemented Porter's core model. In this section I will argue that the current understanding of the value chain needs to be slightly changed because of the advent of the next-gen era's flow publishing logic.

The value chain model has both strengths and weaknesses that partially stem from the approach's descriptive nature and its origin. The model's strength lies in its holistic proposition and the ability to make the inter linkages among industrial actors more explicit, thereby uncovering “the dynamic flow of economic, organisational and coercive activities” (Kaplinsky, 2001: 2). That is to say, the concept's true value lies in the visualization of intra-industry power relationships. Even though value is added following the commodity downstream, the various

links in the chain are often co-dependent. To be able to analyze those linkages, it is essential to pinpoint which actors are directly contributing to the value chain and which are not, thereby identifying the sometimes implicit or taken for granted power relations among those actors.

The value chain concept inspired many analyses of the game industry, which often offer a generalized model for the cultural game industry at large. The focus in such studies has primarily been on the pre-networked console segment and thus takes the physically distributed console game as the default commodity form. For example, Dmitri Williams (2002: 46) offers a very straightforward model, which distinguishes among “five vertical stages of the video game industry”—development, publishing, manufacturing, distribution, and retail— noting that the stages have similarities with the “pre-recorded video cassette industry and the book industry”. In the latter part of his article, Williams (2002: 49) briefly notes that the publishing logic might change as there “are alternative distribution paths on the horizon” that “remain a distant but intriguing possibility”, and will primarily bypass traditional retail channels. As we will see later in this chapter that is exactly what happened in the next-gen era.

As argued in the opening section of this chapter, the cultural game industry has seen many new hardware and software platforms and has evolved up to a point where the once straightforward console segment has spun off into several additional market segments, each sporting a slightly different value chain. The game's pre-networked commodity form, whether published for a pre-networked dedicated console, the PC, or a handheld console, has been primarily conceived as a packaged good. The rapid diffusion of hardware and software platforms as tablets devices, smart phones, and online social networks, led to a situation in which the traditional video game as a packaged good is not only complemented by a different commodity form, but also by a situation in which digital distribution renders the manufacturing and retail stages obsolete. These transformations challenge longstanding visualizations of the value chain model conceived during the era of pre-networked devices. As a result, the notion of a “typical” or “standard” game value chain no longer does justice to the hybrid nature of the next-gen Triple-A game, nor to digitally distributed video games in the networked arcade game segment.

Still, the fact that the configuration of the value chain model is changing offers a chance to reflect on institutional transformations. For example, current micro-economic trends, such as a truncation of the value chain through the advent of digital distribution, can result in a fundamental reorganization of the value chain and thus have significant macro-economic implications. In the case of digital distribution, there is a shift in the balance of power among the cultural game industry's main industrial actors. These kinds of micro-economic developments coincide with the taken-for-granted status of the concentration in

industrial ownership. Hence the need for a political economic perspective to complement the administrative, descriptive nature of the value chain model. A material perspective allows for a historically informed, but above all a much-needed critical perspective on blockbuster publishing and its associated industrial actors. In the end, the value chain is a useful analytical device because it shows the top-down, industrialized character of cultural production and circulation in the cultural game industry. By focusing on the power distribution among its individual linkages, the concentrated nature of capital and power becomes all the more apparent.

In order to deconstruct the intra-industry power relationships in the Triple-A segment, it is necessary to specifically identify the individual industrial actors that are part of the Triple-A value chain. Rather than Williams' model I will build on Christina Teipen's (2008) more specific interpretation of "the video game industry's value chain", see appendix. Next to positioning crucial industrial actors such as developers, publishers, platform owners, and retailers, Teipen's model draws attention to the mutual dependency between game developers and platform manufacturers, operationalized through licensing agreements. Before fleshing out the intra-industry relationships in the Triple-A segment and offering a segment specific interpretation of the next-gen Triple-A value chain, I will first re-contextualize and criticize the value chain model to make sure it better reflects the flow publishing logic as well as to account for the recent work done on the hybrid nature of cultural commodities.

Reconfiguring the value chain

While Porter's original value chain model, and the subsequent reinterpretations by game studies scholars are useful analytical tools, three issues question the premise of the model, particularly its generic and linear conceptualization. First, the typical game value chain excludes various external key stakeholders. Second, the model is based on the concept of consumption. And, third, the model has a limited scope because it omits market and non-market productions that structurally extend the game value chain. I will discuss these issues more in-depth below.

The first issue is the limited scope of the game value chain as presented in game studies literature by focusing on the "primary value adding activities" thereby precluding various "support activities, such as firm infrastructure, human resource management, research and development, and procurement" (Porter, 1985). The question then is, how do these companies relate to each other? The number of companies dependent on those companies conducting primary value adding activities is rather large. Dymek (2010: 86) notes that:

The video game industry is a loose alliance of a plethora of different types of organizations and companies scattered all around the globe, rarely with governmental support (like most major industries, including cultural) or central industry organizations—a peculiar patchwork of highly independent small to midsize companies.

For example, not directly visible in the typical value chain model are vital stakeholders such as venture capitalists, manufacturers of game peripherals such as controllers (Logitech and Madkatz), game related advertising middlemen (Double Fusion, IGA Worldwide, Massive Incorporated), Internet Service Providers, companies hosting game servers, online platforms selling ingame material, and game rental subscription services, for example Gamefly in the United States.

To help discriminate between what I will call the "core" game industry—firms primarily concerned with the development, distribution, marketing and retailing of games—and various support activities, I will break down the latter category into two sub-sectors. These sub-sectors add value, either to consumers, to the core game industry, or both, but they do so rather indirectly. The two sub-sectors are the paratextual industry and the support industry, and both are related to the core game industry on a different level. First, Consalvo (2007: 9) introduces the notion of the "paratextual industries". Note that this sub-sector is anything but peripheral, both in cultural and in economic terms (Hesmondhalgh, 2007; Gray, 2010). As Consalvo goes to show, typical companies active in the paratextual industry are manufacturers of mod chips (e.g. R4), anti-cheat software developers (e.g. Punkbuster), and strategy guide publishers (e.g. Prima). What these companies have in common is that they are primarily related to—but are not physically part of—the products developed in the game industry on a textual level. They provide goods or services, which directly interact with games by facilitating, extending or altering the game or game experience.¹⁰⁷

Next to the paratextual game industry, there are companies that are economically dependent on those companies operating inside the core game industry. This second sub-sector, 'support game industry', combines a wide range of firms that do add value, however indirectly, to the core game industry and in that sense they are supportive. For example, game rental services are not part of the value chain, nor do they relate to the core game on a textual level, yet they are highly dependent on the output of the core industry. The same can be said of Internet Service Providers who provide access to networked devices, but who do not alter

107 As Gray (2010) goes to show, the peripheral or paratextual industry is a highly lucrative business which revenues often eclipse those of the core industries.

the game experience on a textual level. Even though companies operating in both sub-sectors do not influence the Triple-A's commodity form directly, they are vital to the core game industry by offering valuable additional services.

The diverse set of companies constituting the paratextual game industry need to be recognized for the rather significant role they play for the every day practices of video game players. While these companies might not directly interact with the core game industry on an economic level, they act as indispensable intermediaries between game, gamer and core game industry. As a result, the complementary position of both sub-sectors inherently affects the position of power of institutional actors in the core game industry. Like Hesmondhalgh (2007: 14), I am particularly interested in that part of the game industry that is "based on the industrial production and circulation of texts and [which is] centrally reliant on the work of symbol creators". I will henceforth primarily focus on this set of organizations that one can see as the 'core game industry' (hereafter: the cultural game industry). My focus on the cultural game industry is, once again, why I will continue using the value chain approach in my further analysis

Second, the value chain model implicitly supposes a process of consumption which is at odds with the economic characteristics of cultural production and consumption. As noted earlier, the value chain model is largely rooted in theory that supposes the production of standardized commodities (physical goods), rather than cultural commodities. In economic theory, however, information, knowledge and culture are "nonrival public goods" (cf. Benkler, 2006). This means that playing a game does not lead to rival use. Its usage does not diminish the ability of other gamers to play the same game. Because the marginal costs of game production are close to zero, particularly in the case of digital distribution, there must be an incentive to profit from additional production. Simply put, once produced, information goods do not wear out or decay while being stored or during consumption, and can be copied indefinitely at very low costs. In practice, for-profit companies involved in the production of information goods deploy various tactics and regimes to create artificial scarcity, which translates to the reliance on a strict copyright regime and stringent control over the means of distribution. From this perspective it is somewhat misleading to speak of game consumption; rather, one should speak of game usage.

Despite this economic observation I will continue to refer to the use of games as consumption. As opposed to the status of commons-based, peer produced goods and services in Benkler's "networked information economy", I argue that Triple-A game production clearly follows a corporate logic; signaling a for-profit, rationalized, standardized, capital-intensive and proprietary mode of cultural production. The Triple-A game is not meant to be used, pried

open, sold through, rented or lent to a friend, but to be consumed, played through and then, preferably, to be shelved. The advent of PDLC slightly changed this rationale by extending the act of consumption as illustrated in chapter 2 by the examples of *Dragon Age: Origins* and *The Elder Scrolls IV: Oblivion*.¹⁰⁸ By ways of a mix of marketing, PR, and the industry's dominant techno-economic logic of legal protection schemes and constant innovation, gamers are conditioned to continuously consume games, and to buy the annual iteration of a Triple-A game and its inevitable sequel.

Following this line of argumentation, the typical next-gen Triple-A game, such as *Call of Duty: Modern Warfare*, is part of what Lessig (2008) would call "Read Only culture". The video game incarnations of *Call of Duty* are meant to be played, not manipulated, let alone be copied and shared. Even though we can recite stories of playing the game, share screenshots, or discuss tactics, the actual process of playing console games is, in an economic sense, set-up as an act of consumption. Even though a consumer has full say in what to play, when and for how long, as well as how to interpret ("read" or play) a game, the cadence of consumption feels well paced and is highly regulated. In the case of a multiplayer game like *Call of Duty* playing extensively online may extend well beyond the time spent reading a book or watching a movie; in an economic sense the video game is positioned as a physical "RO token" to be consumed, stocked and discarded when 'done'. As we have seen in chapter 3, the more open-ended practice of online play is heavily guided by the logic of flow publishing. The release of map packs several months after the initial release invites players who put the game away to not only put the disc in the console again, but to consume as well. And when gamers are bored with additional maps in the pack, there will be a sequel, which is generally marketed as bigger, better and (slightly) different, but above all it is strategically positioned to jumpstart the next cycle of consumption.

The third issue with the common conceptualization of the game value chain is related to the second point, and concerns the extension of the value chain by both non-market actors and stakeholders in the core game industry itself. Both practices are key characteristics of the Triple-A game as a techno-economic-cultural artifact and signals its ongoing extension. The value chain, both in Porter's original work and in its many adaptations, has a beginning and an endpoint. The Triple-A game's hybrid distribution model of selling a physical copy, which is the beginning of the cultural commodity's second life, challenges this conception. I would argue that next-gen blockbuster games are positioned as 'platforms of consumption', that is to say,

108 If a gamer wants to (re)play an old game she can buy, and thus consume the game again. Many old games are available as downloadable titles, for example, as Xbox Classics on the Xbox Live Marketplace.

they are extended after launch with songs, maps, or full blown episodes. The logic of flow publishing obviously has implications for the lay-out of the Triple-A value chain, which I will discuss in the next chapter.

On top of that, consumers of a small number of Triple-A games are able to develop "proprietary extensions", pieces of additional game content build upon proprietary game technology, thus extending the original stand-alone game (Nieborg & Van der Graaf, 2008). This "proprietary experience" of developing user-created content, often referred to as "modding", signals the reciprocal relationship of non-market game developers (i.e. fans, modders, students, activists, artists etc.) with the core game industry (ibid.). In many ways, gamers are able to literally add value to a game. Sometimes just by playing, as is the case for many MMORPGs (Humphreys, 2009), or by engaging in typical fan activities such as creating wallpapers of fan websites (Jenkins, 2006b).

Considering these three challenges to the value chain model, a valid question to ask is whether the value chain model is still a valuable approach, given the rise of various non-industrial (i.e. non-market) practices in the information economy at large? Is the notion of 'an industry' still applicable considering the nature of commodities and the overlapping practices of producers and users (Bruns, 2008)? Hartley (2009) laments the macro-economic notion of an "industry" and sees the value chain model as ill fitted to describe the current evolution of the "creative industries". He proposes to change the linear model of the value chain into a "social network market" populated by agents (both individuals or companies) who both are sources of origination (cf. Potts et al., 2008). Agents are related in a physical or virtual network set-up for the adoption of ideas and where enterprises act as coordinating institutions and retain ideas by providing a market-based structure. However, while Hartley's model is useful to engage in a discussion on the role of users in the information economy at large and the Web 2.0 milieu in particular, Hartley's model does not translate well to the next-gen Triple-A economy.

While users do exert various forms of direct or indirect influence during the development of a typical console game, for example user feedback on discussion boards, their role has limited, if any, technological impact on the final product. It is true that game concepts are commonly pre-tested and developers may selectively interact with the public during the phase of pre-production and game development. However, the development of original intellectual property in the Triple-A game industry is by all means a closed-off, secretive, internal process (Dymek, 2010, O'Donnell, 2008; Tschang, 2005; Tschang & Szczypula, 2006).

Moreover, product development is rather supply-driven compared to the more demand-driven offerings of the networked information economy, such as open source

software development. Game publishers and platform owners create an economy of scarcity, rather than abundance. Product and process innovation in the console segment is industry-driven, not consumer-led. And while the physical capital needed by a typical user to take part in the "social network market" is open for all, relatively cheap to acquire, and non-proprietary, the Triple-A segment is capital intensive, standardized, closed-off and proprietary. Similarly, hardware innovations in the core game industry and the supply industry of semi-conductor chips is, again, equally top-down, capital intensive, industry driven, as opposed to user-led (Brown & Linden, 2009; Shippy & Phipps, 2009).

In other words, the entire Triple-A value chain is fully controlled by industrial actors who together constitute the Triple-A market segment. Even though users develop innovative "proprietary extensions", these instances of cultural production build upon innovations which originated inside the core game industry and extend the value chain beyond retail, rather than being original stand-alone content originating from creative individuals (Nieborg & Van Der Graaf, 2008).¹⁰⁹ This does not mean that the creations of users do not have indirect monetary value. In some cases—think of user-created levels in *Little Big Planet* (2008)—they quantitatively far outstrip original content. But to frame such practices as user-led innovation is an oversimplification and ignores the institutional framework in which these actions take place. The linear logic of the game value chain, even though it is extended, is still in place as game developers and publishers are responsible for the creation and manufacturing of proprietary cultural commodities that are then physically distributed to consumers via retail channels.¹¹⁰

In the end, the value chain model is also used in this chapter because it represents the positivist and linear thinking underpinning media economics and management studies. In an economic sense, the Triple-A game is still thought more of as a product, or in industry discourse as a "packaged good", than as an ongoing service. Despite the commodity's experiential nature and the infinite replayability of a next-gen multiplayer game, the Triple-A game is institutionally positioned and, however implicitly, marketed to be consumed. Arguably, this process is grounded in a consumerist culture based on furthering the logic of technological and psychological obsolescence (Slade, 2006). The linear value chain, empirically and theoretically based on the production, distribution and consumption of packaged goods,

109 There is a considerable difference in terms of access to core technology between PC games and console games. For example, the development of total conversion modifications for PC games indicates the high level of overlap between industrial development practices and user development practices.

110 Again, this is not to say that users have no influence over PDLC offerings whatsoever. In many instances, game developers are quite receptive to user preferences, particularly the theme and contents of, for example, a map pack. The operationalization of the branched serialization formatting strategy and its implementation, i.e. pricing and release scheduling, on the other hand, seems to be far more top-down.

reflects the consumerist logic constituting Triple-A culture.

A Triple-A game seems to have a built-in half-life. For a consumer, the process of decay starts the moment a new game is bought. Within weeks of purchase, and sometimes even before that, players are aware of the extension of the artifact, but also of the promise of an update: the sequel. In a political economic sense, a game has infinite use value; it does not degenerate during play. But while a game cannot be used up, every winter there is a new line-up of sequels. Ryan (1991: 54) theorizes the serialization of content from an political economic perspective: "Under the logic of repetition underlying publicity and popularity, the special characteristics the cultural object initially possessed are systematically undermined by its very success in exchange". More so than "steady-sellers", Triple-A games have a truncated life cycle. Added to that are digital play's socio-cultural properties. Many gamers do not finish single player campaigns, while those playing online might will ultimately grow bored with the same set of maps. Preventing boredom by creating built-in anticipated renewal is the business logic structuring the Triple-A commodity form.

The unfinished commodity begins its life cycle as a physically distributed discrete commodity. As such, the value chain's underlying theoretical and ideological assumptions correspond with industrial strategies, discourses and business practices. There is little doubt that this is going to change in the long term. The hybrid commodity stage is an intermediate stage, signaling a transition from a pre-networked finished commodity towards an indefinitely expanded commodity. This shift will have profound implications for future value chain configurations, as the common stages of production, circulation and consumption will blur beyond recognition and the temporal and economic logic underlying the model will become insufficient to describe the ongoing production/consumption feedback loop that characterizes games as services. Yet, I would argue that the production and circulation of the Triple-A game in the seventh cycle is relatively straightforward compared to both for-profit and non-market non-physical commodity forms growing in volume in the information economy.

In the next chapter, I will zoom in on the specific linkages along the value chain and argue to what extent the chain has changed over time and how these changes relate to the Triple-A commodity form. I will revisit the process of spatialization by theorizing how industrial actors in the cultural industries leverage corporate concentration to "better control the production, distribution, and exchange of communication, and also limits competition and therefore the diversity of information and entertainment available in society" (Mosco, 2009: 158-59). A discussion of the power distribution among industrial actors constituting the Triple-A segment would not be complete without a thorough account of the issue of the concentration and centralization of capital. Ownership concentration, as Mosco (2009: 162)

explains, "is the primary defining element in media concentration", adding that the ongoing process of structural transformation in the cultural industries is more relevant than ever before.

The focus will be on the two biggest and arguably most influential third-party game publishers of next-gen Triple-A games, Electronic Arts and Activision Blizzard. Together with both next-gen platform owners Sony and Microsoft, they will serve as case studies to discuss the business and economics of Triple-A publishing. In doing so I will consider the implications of a changing institutional landscape as well as reviewing the implications of the Triple-A segment's ongoing trend of concentrated ownership. Third-party publishers and platform owners are co-dependent on each other. Kline et al. explain this as "in many media industries, the high ground for strategic control of interactive game revenues lies not in production but in marketing and distribution" (2003: 178). Game publishers, on the one hand "control the vital bottleneck through which the game has to flow on its way to the consumer's dollar" (ibid.), as they are primarily responsible for the decision what games to fund (and thus to develop) and how to market them. Platform holders, on the other hand, exert total control over their machines by deciding which companies are able to obtain essential development kits and distribution or "licensing" rights. Because of the intensifying process of spatialization, both industrial actors are more powerful than ever before.

Chapter 5 - Publishing power

Similar to the way the music industry has evolved due to new advances in compression and digital distribution technologies (Bockstedt et al., 2006), the cultural game industry is undergoing equally structural changes. In the most abstract and generic terms, the historical development of the video game value chain started as a highly integrated system, followed by a phase of disintegration, and is now moving towards the current phase of both integration and disintermediation (Gallagher & Park, 2002; Schilling, 2003). As Flew (2008: 133) explains: “Just as the 1980s industry fallout marked the realisation that games hardware should be developed separately from games software, the 1990s marked a further break-up between games development and games publishing or distribution”. In this chapter I will build on the pre-networked game value chain configurations discussed in the previous chapter and point to two complementary ways in which the next-gen Triple-A value chain both integrates and disintegrates, particularly focusing on the position of (third-party) game publishers as “chain governors” (Readman & Grantham, 2006).

The game publishers' growing role as coordinator in the Triple-A value chain is tied to the position of power held by platform holders, a relationship which is highly co-dependent in nature. In this chapter I will discuss three instances of value chain disintegration or 'disintermediation': 1) the outsourcing of game development tools and technology, also known as middleware, and the production of game assets such as textures, 3D models and meshes, 2) the continuous marketing effort of game publishers, often performed by local PR and marketing agents, and 3) the logic of flow publishing indicating the prolongation of the value chain via branched serialization.

As contended in the previous chapter, the generic approach of many game studies scholars towards institutional analysis prevents a more precise breakdown of the power relations among the various industrial actors in the Triple-A segment. By discounting the logic of flow publishing, the traditional pre-networked game value chain does not represent all linkages. Economic geographer Jennifer Johns (2006) expands on the value chain model and offers a more comprehensive outline of the game industry's value chain.¹¹¹ I will take Johns'

111 Drawing on the “global production network” approach (Coe et al., 2004), Johns stresses the inter-industrial embeddedness of a production network, focusing on how value and power are created, maintained and captured in the network (cf. O'Donnell, 2008). Johns' approach builds on, and combines Porter's (1985, 1990) value chain model, Latour's (1999) actor-network theory and Gereffi's “global commodity chain” (1999).

work as a baseline reference to rework the generic game value chain for two reasons. First, the approach is a powerful answer to an issue discussed in the previous chapter: the exclusion of seemingly external stakeholders. Two trends signaling chain integration—the dominant position of game publishers and the console chains' hardware/software integration—are key elements of Johns' model. Second, Johns (2006: 169-172) stresses the uneven temporal, monetary and geographical power relationships within the global production network, comparing “highly connected publishers” which have developed a “range of strategies to attempt to capture maximum value thereby increasing their power”, to game developers who occupy a more “peripheral position”. Johns' approach overlaps with general tenets of game related critical political economic theory (cf. Dyer-Witthford & De Peuter, 2009; Dymek, 2010; Kerr, 2006; Kline et al., 2003), laying bare the power relations among the various actors in the cultural game industry. While Johns acknowledges the disintermediations of the production network because of outsourcing and marketing she pays little attention to specific market segments and nor does she acknowledge the extension of the value chain and the logic of flow publishing.

Johns' two models serve as the basis for the reworked next-gen Triple-A value chain. The first model visualizes the seven stages of the video games production network—financing, development, production, publishing, distribution, retailing, and consumption—and their respective inputs.¹¹² More importantly, attention is drawn to the interconnected nature of hardware and software production, which have distinct organizational structures and different inputs during the seven stages.¹¹³ Johns provides a valuable holistic perspective on the cultural game industry, which allows us to compare the game value chain to other segments and cultural industry sectors. For example, during the stage of game production there is the input of the music industry, (for example soundtracks for games), the film industry, and the advertising and marketing industries (2006: 157-8).

Johns' (2006: 164) second “production network” model focuses on the interconnections between industrial actors in the video games software production network.¹¹⁴ Starting with the console manufacturer regional headquarters, the model

112 See Johns (2006: 154) or see appendix, figure 1. The financing stage is notably absent from the traditional value chain models discussed previously. Dymek (2010: 29) notes that access to capital is related to the game publishers' position of power: “Financing/game development investment is definitely one of the major functions and *raison d'être*s of publishers, as they are able to amass the financial strength and scale to manage a portfolio of tens, sometimes hundreds, of titles yearly”.

113 On a similar note, Kline et al. (2003: 170-172) draw attention to the historical situatedness of the game industry by offering a map of the industry linking complementary industrial sectors (the toy industry, computer industry, and media conglomerates all of which were involved in the “genesis of interactive gaming”), to developers and publishers.

114 See appendix, figure 2.

distinguishes among actors, exchange of goods or services, and financial transactions to visualize the distribution of value and power. As are all models discussed in this chapter, Johns' model is a generic one drawing primarily on examples of the pre-networked era of console cycles. It must be stressed that the previously discussed second and third issue of the traditional chain (see chapter 3.2), especially the extension of the chain by either user created or for-profit content, are not accounted for in Johns' second model. The consumer is still an end point, rather than being a starting point for extended commodification. Because of the logic of flow publishing, the Triple-A segment is not only beholden to the long-term temporal structuring effects of the console cycle, but also affected by the more short term temporal dimension of extended commodification.

Next, I will draw on Johns' seven stages and the production network model in order to rearrange the various actors who are part of the next-gen Triple-A production chain, thereby emphasizing the changing nature of the power distribution among industrial actors in the Triple-A segment. Johns' production network model comes very close to visualizing the intra-industry power dependencies and because of its completeness and comprehensiveness, the model serves as a starting point to reflect on the integration and disintermediation of the Triple-A value chain. First the (re)integration dynamic will be discussed.

5.1 Value chain integration

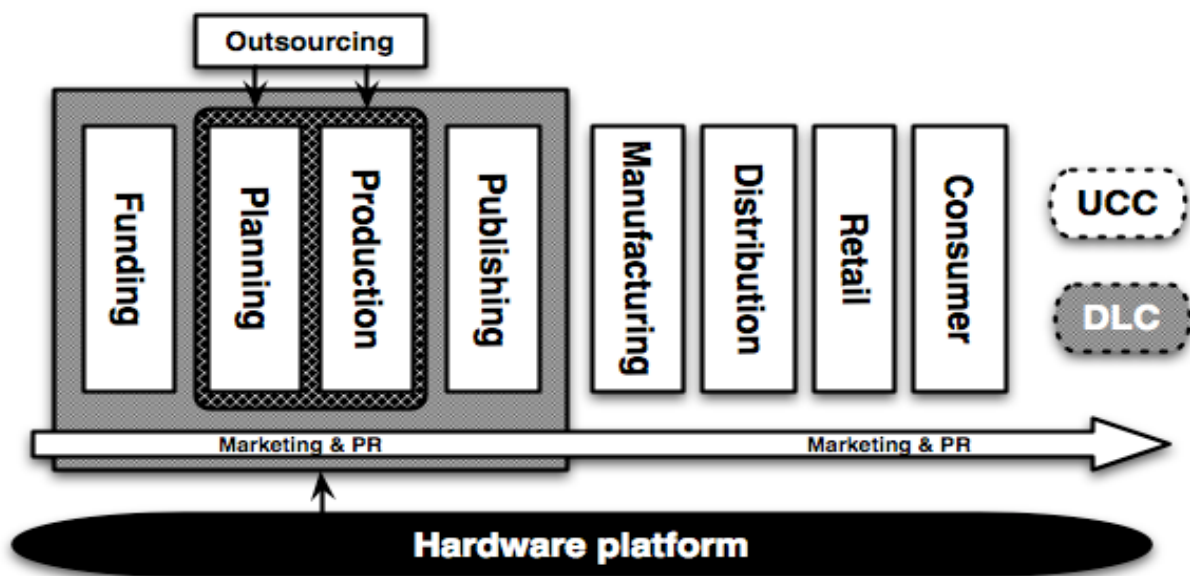
The two crucial positions of power in the Triple-A value chain are held by hardware platform holders (in Johns' model the "console manufacturer") and third-party game publishers who are related on a financial as well as a technological level. Electronic Arts (2008: 15) states in its 2008 annual review: "Our business is highly dependent on the success and availability of video game hardware systems manufactured by third parties, as well as our ability to develop commercially successful products for these systems". The relationship is one of mutual dependency; platform holders are reliant on third-party publishers for royalties and for offering a decent selection of games.

Platform holders are the most vertically integrated companies within the cultural game industry. For example, Microsoft exerts total control over the entire game value chain. The company can finance the development and subsequently digitally distribute and market Xbox 360 games via the Xbox Live Marketplace relying on very few outside parties. That said, vertical integration is an ongoing and contested process and because of the sheer complexity of managing a multi-billion dollar company higher profitability is far from insured.¹¹⁵ Over the last decade, the hardware/software synergy effects associated with the intra-company integration of cultural production and content distribution signal a significant change in the techno-economic foundation of the cultural industries. This conflation is arguably an even bigger opportunity for platform owners who have direct access to the means of circulation. There are also major obstacles for platform holders which may stall hardware/software synergy effects, such as gamers who, for various reasons, are not ready to download large amounts of content, or retail outlets who exert pressure on platform holders to stall the digital distribution of full games to prevent losing (high margin) business.

As for the publisher's position, the Triple-A value chain is an example of, in the words of Gereffi (1999: 41), a "producer-driven" commodity chain, signaling a "capital and technology intensive industry" where manufacturers, in this case the game publishers, are the "key economic agents" because of their ability to control nearly all linkages in the chain. Because of their coordinating role, Readman & Grantham (2006) label game publishers as

115 Apart from various instances of vertical and horizontal integration, in the form of take-overs and mergers, another set of corporate strategies related to media ownership are corporate partnerships and strategic alliances (Doyle, 2002). Chan-Olmsted and Chang (2003: 227) conclude their research on conglomeration and diversification that "a high degree of media diversification with a fair level of overall international product diversification was somewhat associated with a better overall performance, and lower levels of international product diversification do not necessarily led to a lower overall performance".

“chain governors” as they “provide the majority of funding for games development which enables them to set the parameters to which all other stakeholders have to perform”. The governing role of the game publisher can be seen in figure 5.1, as the game publisher is responsible for the majority of chain links. The core task of a publisher, then, is to act as a clearinghouse for intellectual property (IP), to manage the (increasing) risk of investing in new productions, to oversee physical distribution and manage PR and marketing campaigns. In a similar vein, Dovey and Kennedy (2006: 49) argue that: “The publisher is at the heart of the computer games economic system, interfacing between developers, consumers and technology manufacturers” (cf. Dymek, 2010: 26-31). As I will argue below, the integration of the value chain is indicative of the ongoing progression towards the concentration of industrial ownership and capital, and subsequently the shrinking number of industrial actors deciding what will be published, when and how.



[Figure 5.1] The Triple-A game value chain of Activision Blizzard for the *Call of Duty* franchise

Figure 5.1 features the value chain of the next-gen Triple-A game *Call of Duty: Modern Warfare 2* (2009). This popular first-person shooter was published by third-party publisher Activision Blizzard and developed “in-house” (i.e. by a publisher owned studio) by the Encino, California based development studio Infinity Ward. Note that this visualization is different from a first-party publisher, which would be even more integrated. In the Triple-A value chain, the production stages associated with the game publisher are funding, planning, production, and publishing (IP and risk management). As shown in figure 5.1, these four stages together are controlled by the game publisher, indicated by the large grey square. The stages of planning

(inspiration, concept, design) and production (development of assets and programming, testing, redevelopment) are the core tasks coordinated and performed by game development studios (Baba & Tschang, 2001; Gershenfeld et al., 2003). As O'Donnell (2008: 135-7) explains, it is in studios “that code is written, art is generated, and designs are made”, whereas “publishing companies, in many cases, do little to zero actual game development”. Employing a project-based organizational style, creative individuals such as artists, programmers, animators, and producers, work in game studios to make the actual commodity. While game studios have varying degrees of creative autonomy, in the end the game publisher has considerable control over the final product.¹¹⁶ The franchising formatting strategy does allow for original intellectual property, whether created by external developers, or in-house. However, as Triple-A games are set up for serialization, wholly original ideas—non-derivate game concepts—are only commissioned during the start of a new franchise, thereby severely limiting a development studio's creative autonomy over time. The *Call of Duty* franchise illustrates this argument very well.

Increasingly, Triple-A games are developed “in-house” by game publishers. The next-gen cycle marks a moment when “the industry is moving from a period of fairly extensive use of independent/outourcing productions to a phase of possibly escalated use of in-house productions” (Dymek, 2010: 90). This means that rather than providing external, independent studios with the money to develop a game outside a game publisher's managerial oversight, publishers supply their in-house studios with the financial means of production, personnel management and access to core technology.¹¹⁷ The developer/publisher integration is indicative of a trend signaled by Williams (2002: 46): “development teams used to be mainly independent operations, but have increasingly been purchased by publishers and distributors seeking to vertically integrate the development function in-house”. In-house studios are commonly acquired on the basis of a combination of qualities such as their portfolio, a proven track record, ownership of valuable intellectual property (game franchises and technology) and the ability to perform under pressure.

Typically, publishers derive power vis-à-vis studios by wielding capital quite explicitly

116 A situation that is pretty much similar to other sectors in the cultural industries, e.g. the movie, film and book publishing sectors.

117 There is a difference, in this respect, between first-party publishers (Sony and Microsoft) and third-party publishers, as the former have even more direct technological support (i.e. think of the production of *Killzone 2* (2009) which is based on a custom designed proprietary engine based on the Playstation 3's unique hardware architecture). Arjen Brussee, Guerilla Games' (developer of *Killzone 2*) development director: “Our engine is specifically build for the Playstation 3 and was a huge investment but is meant to last the entire next-gen cycle. Our goal was to be able to develop a benchmark title and to max out the Playstation 3's technological capabilities” (Personal interview, February 3, 2008).

by using advances as the primary funding mechanism. This allows publishers to “compose the specifications of games (although independent and financially viable developers can tailor their games for different platforms)” and “set the schedules of performance; and generally, as owners of character IP, appropriate the lion's share of the chain's rents” (Grantham & Kaplinsky, 2005: 191-2). O'Donnell (2008: 137) labels the relationship between development studios and publisher as “dynamic and complex”: “Developers are not given a precise description of the game, which is often desired. Instead developers must frequently base new designs on older ones, which are then vetted by the publishers”. When a milestone set by the publisher is met, third-party developers receive a so-called milestone payment.¹¹⁸

As a result of the division of labor between game studios and game publishers, tension typically arises from the former's need for creative independence and the latter's need to mitigate risk and act out its for-profit agenda (cf. Ryan, 1991). This is not to say that game development is an unruly, purely creative practice as studios deploy various rationalized product development processes, such as “scheduling, resource management, and design control” (Tschang & Szczypula, 2006) to cope with the chaotic and complex nature of game planning and production (Tschang, 2005). Even more so than in-house studios, independent development studios are “the weakest link in the value chain: they have to carry the greatest risk” (Teipen, 2008: 318). Independence, in this sense, literally comes at a price.

The result of the uneven power distribution in the first parts of the Triple-A chain is a highly rationalized mode of cultural production:

The system of game production is now very similar to the situation of any other major media industry insofar as the individual producer has a very narrow margin of choice over what they can make at any given time. When taking market conditions, technological limitations and existing culture of production into account, the space left for producers to innovate is often very small indeed (Dovey & Kennedy, 2006: 43).

The development of the *Call of Duty* franchise is at odds with the romantic notion of a group of game developers freely brainstorming about original game mechanics and novel themes and narratives. More often than not, game concepts are based on existing IP, such as movies or comic books or existing, long running franchises (e.g. Brookey, 2010). As I argued in chapter 3, the hit-catalogue dialectic (Miège, 1989) results in many productions becoming a 'variation on a theme', as opposed to wholly original properties. Developing new intellectual property is

118 The dominance of the milestone mechanism is acknowledged by Dymek (2010: 27): “Publisher-funded milestone financing is by far the most frequent option, although there are alternatives such as (developer) self-funding, new (developer) share issue, prototype funding (where an external investor finances a prototype and assists with publisher negotiations), completion bond-financing (“movie-style financing”) and others”.

increasingly risky. Activision Blizzard CEO Kotick explains the publisher's deliberate approach to creative freedom: "A small segment of very vocal gamers say everything has to be new and different every year. Actually, people are happy with existing franchises, provided you innovate within them" (The Economist, 2009). From the publisher's perspective there is the need to strike a balance between what Kotick calls "processes"—for instance developing long term franchise roadmaps and consumer testing—and developers who might have a different view on what to do with their next project.

The Xbox 360 launch title *Call of Duty 2* was such a mandated effort as Infinity Ward studio head Vince Zampella explains: "With *Call of Duty 2*, we were dead set against it being World War 2, but Activision really wanted it, the compromise sort of being that we'd get some dev kits for consoles in exchange for doing a World War 2 game" (Robinson, 2009). Dev kits (or development kits), which are bought or licensed from platform holders, are necessary to develop games for (next-gen) consoles. In the end, Infinity Ward took the creative risk by developing the non-World War 2 themed *Call of Duty 4: Modern Warfare*, which proved to be a huge financial success.

Taking a step back and looking at the interaction among studios and publishers it becomes clear that the control over the means of production and distribution in the Triple-A segment rests with a small set of influential industrial actors and has become a closed-off oligopolistic system:

The oligopolistic nature of this segment, combined with the closed technological systems has a strong structuring effect on the software production process and means that the major platform developers erect a number of barriers in order to protect their market share and prevent the entry of competitors (Kerr, 2006: 57).

More so than any other cultural industry segment, the circulation of video games is tightly controlled by a triopoly, an oligopoly ownership structure consisting of three platform holders; Microsoft, Sony and Nintendo. By hosting and exploiting, what I will call a "proprietary platform strategy" the cultural game industry leverages its corporate grip over the Triple-A commodity. As Mosco comments:

A major reason for the recent wave of mergers and alliances across media is that companies are eager to take advantage of converging hardware and software systems that enable them to control major pieces of the entire circuit of production, distribution, and exhibition or display (2009: 166).

It is in the realm of controlled circulation of the next-gen game where the processes of spatialization and commodification merge. Because the relationship between platform holders

and game publishers is such an important intra-industry power arrangement, I will briefly explore their dependency.

Co-dependency between platform holder and publisher

At the most basic level, there is a considerable difference between the actions, strategy and goals of, for example, a game publisher compared to a retailer. Game publishers reign supreme as to which games or franchises to develop, how to market them, and how to extend their longevity through the distribution of additional content. Conversely, the power of retailers is more diffuse, albeit still significant, as they have a grip on the physical distribution and in-store marketing of blockbusters. Conversely, Triple-A publishers are increasingly able to short circuit the distribution muscle of retail outlets by pursuing the hybrid publishing model and by shifting attention to digital distribution of content. In the end there is a high level of co-dependency among the various parties involved in the development, distribution and wholesale of blockbuster games. That is to say, power among the different actors is never absolute but rather in constant flux (Schilling, 2003).

Because of the rise of the hybrid distribution model, the balance of power is not so much shifting in the favor of publishers, but rather towards the platform owners. While retailers still hold considerable power, it is dispersed among various chains (Walmart, Target, GameStop, et cetera), as opposed to the rather singular and highly concentrated power of Sony or Microsoft as platform holders. These kinds of industrial relationships, particularly in terms of dependency, vary considerably among market segments; the level of interdependency between platform owner and publisher in the age of digital distribution keeps increasing.

As figure 5.1 shows, the publisher-platform holder relationship is best qualified as one of mutual dependency. First, there is the obvious technological dependency. A console is a standardized piece of proprietary hardware that demands that third-party publishers need permission to publish on a platform, as well as the necessary tools to do so. Second, the manufacturing of games (DVD or Blu-Ray duplication and booklet printing) is handled by platform owners who charge a royalty (Johns, 2006).¹¹⁹ This economic bond between the two leading industrial parties is particularly strong within the Triple-A segment.¹²⁰ In practice, this

119 The exact amount of royalties to be paid per unit is estimated to hover around \$10 (Kerr, 2006)

120 Comparing the cultural game industry to other cultural industries' sectors, Hesmondhalgh (2007: 244) specifically singles out the console segment's integrated business model of selling profitable games (software). In this model software has "a very high mark-up" and consoles are "loss leaders" (ibid).

means that platform owners are dependent on third-party publishers to provide the breadth of titles a platform holder is never able to produce on his own.

Even though hardware platform operators, as figure 5.1 indicates, interact with all actors that are part of the value chain, their fate is most intertwined with third-party publishers. The pick up, and keep up, of console sales is highly dependent on both the spectrum and quality of its software catalogue. As the research of Binken and Stremersch (2009) show a high quality blockbuster can increase the sales of hardware for a significant period. In the case of Playstation such a title was *Final Fantasy VII* (1997): “Many customers bought a PlayStation instead of a Saturn just to play that game. From that point on, Sony’s console overtook its rival and the fortunes of Sega Saturn declined sharply” (Alvisi, 2003: 622-23). Partly for this reason platform owners have in-house studios develop, or acquire the publishing rights of, so called “exclusives”—games sold exclusively for one hardware platform.¹²¹ The branched serialization strategy is also used together with the exclusivity strategy as was the case with the PDLC for *Call of Duty: Modern Warfare 2*, which was released first on the Xbox 360 and weeks later on the Playstation 3. These strategies show, on the one hand, the hit-driven nature of the game industry as one title seems to be able to singlehandedly drive hardware sales, while on the other hand it demonstrates the reliance of hardware developers on a good relationship with third-party game developers and publishers.

Yet, apart from being strategic partners, platform owners and third-party publishers are often direct competitors as well, as platform holders not only provide a publishing platform but also commission the in-house development of Triple-A games. For example, the next-gen incarnations of the *Halo* franchise are published by Microsoft's publishing branch Microsoft Game Studios. The franchise competes directly, if only for “mindshare”, with similar games published by competitors.¹²²

With the advent of flow publishing, the power within the value chain is shifting from retailers to the already powerful platform holders. In the wider cultural industries, as well as in the Triple-A market segment, big corporations increasingly get bigger: from the 1960s onwards there has been the general corporate tendency of integration and diversification through

121 Exclusives can be developed in-house, a strategy that is more aggressively pursued during the seventh cycle by Sony. For example via the *God of War* (2005 -) and *Gran Turismo* (1997 -) franchises. A platform holder might also take Microsoft's route of “timed exclusives”, for example *Grand Theft Auto: Episodes From Liberty City* (2009). In the case of the Xbox 360, some titles are 'semi-exclusive' to Microsoft's platforms, i.e. the Windows software platform. For example, *Gears of War* (2006) was first published by Microsoft Game Studios on Xbox 360 and then a full year later on the PC.

122 For example, Electronic Arts' *Crysis* (2007 -), *Army of Two* (2008 -), *Battlefield* (2002 -) and *Medal of Honor* franchises, as well as published by Activision Blizzard, i.e. the *James Bond* (2008 -) and the *Call of Duty* franchise. The same goes for platform owner Sony publishing shooter franchises as *Warhawk* (2007 -), *SOCOM: U.S. Navy SEALs* (2002 -), *Resistance* (2006 -) and *Killzone* (2004 -).

natural growth, mergers, and take-overs: "Media concentration is an ongoing trend that follows the predominant tendency within capitalism toward centralization of economic power in the hands of oligopolies" (Bettig & Hall, 2003: 16).¹²³ The concentration of capital and of industrial ownership has several overlapping and complementary effects. Most notably, there is a decrease in the potential for non-capitalist modes of cultural production and less diversity in output.

To pick up on this last issue, I would assert that concentrated industrial ownership has significant effects on a commodity's form and format as well. The value system encompassing Triple-A game production and circulation not only imposes limits as to who is, and who is not able to take part in this mode of production and distribution, but also sets structural limits to the nature of the commodity. As Dovey and Kennedy (2006: 49) go on to explain, industrial ownership is related to form and format in various complementary ways:

Big, cash-rich publishers have been in a strong position to acquire developers and shape the industry. The publisher-led consolidation of market sales has occurred through 'blockbuster' titles, which often derive from film licensing deals such as Electronic Arts' hugely popular Harry Potter and Lord of the Rings titles. Sequels and repeat sports franchises also now play a major role in the marketplace, providing publishers with guaranteed sales on the basis of previous marketing effort that will defray ever increasing production costs.

To begin with, there is a game publisher's ability to finance new projects, for example through leveraging its market value, as Teipen explains, by using "their own stock as a currency for acquisitions" (2008: 315). Money, then, is poured into hits, and hits only. As such, the Triple-A's commodity form is structured by the ability of a publisher to finance such increasingly risky projects.

During the next-gen console cycle, game publishers, in close cooperation with platform holders, ushered in an era of experimentation related to the commodity's distribution. The firm grip of game publishers on their intellectual property and the primary means of cultural production, as well as on the means of circulation allows these growing corporate entities to intensify the process of commodification. Similar to the capitalist logic underlying the television industry directly influencing the televisual commodity form (Meehan, 2005), the profit-oriented nature reshaped the blockbuster video game into a continuously extended property.

123 Hesmondhalgh (2007: 172) argues that sound data to substantiate such claims is hard to come by: "So, it is difficult to prove that levels of market concentration have substantially increased in the cultural industries since the late 1970s". That said there is research done which is convincing to warrant the claim that 'the big' actually do 'get bigger' (e.g. Bagdikian, 2000; 2004; McChesney, 2000).

The infamous Horse Armor downloadable content, discussed in chapter 2, illustrates how, during the beginning of the next-gen console cycle, new business practices were being developed and publisher experimented with the size, pricing and marketing of additional content. However, given the small number of publishers the lack of competition means that distribution and pricing standards settle quite quickly. Free downloadable content on the Xbox 360 platform, for example, is increasingly rare, except as a mechanism to prevent second-hand sales. Also, in certain instances the pricing of map packs has gone up, from *Call of Duty: Modern Warfare*'s "Variety Map Pack" selling for 800 Microsoft Points (10\$) up to *Call of Duty: Modern Warfare 2*'s "Stimulus Package" selling for fifteen dollars.

Similar to other sectors in the core cultural industries, the concentrated nature of industrial ownership and the integration of the value chain linkages has profound effects on the Triple-A segment's composition and its institutional practices. The overarching argument here is that with wealth comes power. Specific market structures, like an oligopoly or triopoly, are exclusive to other ownership structures and business practices: "Non-profit enterprises and smaller commercial companies, including those aiming at lower profit margins and innovative working practices, will tend to be excluded or marginalised" (Hesmondhalgh, 2007: 63). Over the last decades, Triple-A video game production translated, by default, into a for-profit, capital-intensive mode of production. For example, the prospect of producing, let alone distributing, a non-profit (e.g. an open source) video game has been somewhat challenging, to say the least, something that can be largely ascribed to existing industrial ownership structures and intra-industry power arrangements. One could point out that the complementary trend of value chain disintegration would diffuse power and capital and mitigate the implications of ownership concentration. In the next section I will argue that value chain disintermediation particularly strengthens the publisher's position of power.

5.2 Value chain disintermediation

To defer the risks associated with game development, game publishers heavily market their properties; they try to extend the life cycle of a game through additional offerings and aim to bring down development costs by outsourcing various development, distribution and marketing tasks. One way to account for the reconfiguration of the value chain as a result of these additional chain linkages would be to return to neo-classical economics. Like any business, game publishers are constantly on the lookout for competitive advantages through differentiation (offering a unique product and, or service), cost leadership (seeking cost advantages through economies of scale), and focus (Porter, 1985). When seeking out competitive advantages through differentiation and cost leadership strategies, there are three activities in the game value chain that are typical for the blockbuster segment. These so called “disintermediation” strategies are either absent from the typical game industry value chain or positioned differently within the typical chain configuration. First, the outsourcing of development tasks originates from the cost leadership strategy and the focus strategy. Second, ongoing investments in marketing campaigns are related to differentiation strategies. Third, typical for the unfinished commodity is the constant pressure by game publishers on extending the value chain through branched serialization. Just like the strategies and trends towards chain integration discussed in the previous section, these disintermediating actions effect the layout of the value chain and redistribute value and power among industrial actors.

Taken together, the three disintermediation strategies have become strategic objectives for Triple-A game publishers, albeit to different extents. In the end, they are guided by a stockholder driven for-profit agenda, demanding higher profit margins, which can be achieved by driving costs down and selling more content to more consumers.¹²⁴ In addition, they have considerable political economic implications. While the notion of disintegration might convey a Triple-A game publisher's lack of control over the value chain, the opposite is true. Speaking of the cultural industries, Rifkin (2000: 27) notes that companies, such as game publishers, “stay on top by controlling finance and distribution channels while pushing off onto smaller entities the burdens of ownership and management of physical assets”. Next, I will demonstrate that the disintermediation of the game value chain allows a game publisher to become not only more flexible and agile in the way he organizes game production and

124 For example, for Electronic Arts, lowering the 'head count', sharing core technology and outsourcing art work to low wage countries has been one of the pillars of its next-gen strategy to become (more) profitable.

circulation; he is also able to exert more control over disintermediated chain linkages.

The three instances of value chain disintermediation—outsourcing, marketing and extended commodification—overlap considerably. Publishers can, for example, save costs through the reuse of game technology. This, however, is not only done via in-house technology sharing, as was the case for the *Call of Duty* franchise, but also by outsourcing. The three strategies come together in the logic of flow publishing as the development of map packs can be outsourced to outside studios where it coincides with a perpetual marketing campaign. In the remainder of this chapter I will discuss how the three disintermediating business strategies are operationalized by game publishers and how they are related to the Triple-A commodity form.

Outsourcing art and technology

Similar to Western companies outsourcing programming work and customer service to, for example, Indian companies (Friedman, 2005), game studios increasingly outsource various tasks and services to specialized firms (Deuze et al., 2007). Partly because of ballooning budgets and partly because of the increasing sophistication of next-gen projects, there is a need for more outside expertise and manpower. At the same time, game publishers and thus development studios maintain full control over a project's direction “where developers seek to maintain control over core activities and technologies, non-core services are commonly outsourced” (Grantham & Kaplinsky, 2005: 199). Following Rifkin (2000), the game publisher's growing reliance on outsourcing indicates a further strengthening its supervising role as a chain governor.

Consider for example the production of Sony's in-house developed next-gen blockbuster *Uncharted 2: Among Thieves* (2009).¹²⁵ As an in-house game developer, Naughty Dog benefitted from the advice, technology sharing, and assistance of parent company Sony, especially its game related branches (Sony Computer Entertainment Worldwide Studios, Sony Computer Entertainment America, Sony Computer Entertainment Europe, Sony Computer Entertainment Japan, Sony Computer Entertainment Asia), as well as many other in-house Sony studios (Guerilla Games, Insomniac Games, Sucker Punch Productions and others). Apart from the traditional core development tasks performed by Naughty Dog, employing a team of over 165 and a QA team of over 25, Sony contracted an impressive number of outside companies to aid in the production of the action-adventure game, which was lauded by critics

125 The following list of companies is based on the eight-minute credit roll shown after completing the game.

for its attention to detail and cinematic look and feel. The company contracted a wide range of talent, such as composers, a cast for voices as well as supplying motion capture reference material, and stunt performers. Many of these additional contributions are coordinated and regulated by a body of union representatives and managers. Apart from the core development team and publisher related support, a number of specialized companies were involved.¹²⁶ While Naughty Dog developed its own proprietary game engine (“Naughty Dog Engine 2.0”), one piece of commonly outsourced technology is the licensing of a piece of middleware, the Havok physics engine.¹²⁷

The hundreds of people that, however briefly, engaged in *Uncharted 2*'s production shows the growing division of labor as well as the level of complexity of next-gen blockbuster games. Development teams increasingly rely on sophisticated middleware in areas such as networking, artificial intelligence, physics, audio, graphics, and generation specific engines (Grantham & Kaplinsky, 2005). In the end, the need for outsourcing stems from the growing risks associated with blockbuster production. As Deuze (2007) argues, the percentage of outsourced studio work in general is already over 60% and is expected to rise to over 90%. Some of this work is outsourced to low-wage countries as India, Eastern Europe and Asia, while companies developing middleware are based in the West, employing highly trained programming staff.¹²⁸ Arguably, the growing reliance on outsourcing further secures the governing role of game publishers who are best positioned to fund and manage outsourcing.

Marketing and PR: Building Buzz

While game publishers offload production tasks to in-house studios or engage in distribution agreements with third-party developers, a key task of publishing is instigating, financing and overseeing marketing and PR efforts. Although marketing and PR might seem to be a rather consumer focused process, in practice it goes beyond “the intentional shaping of public perception” and an “effort to infuse” games “with symbolic meaning in order to make them more attractive” (Egenfeldt Nielsen et al., 2009: 138). As Kerr (2006: 98) notes: “Publishers

126 For example, a motion capture studio (House of Moves, U.S.), audio and animation outsourcing (Technicolor animation and interactive services, U.S.), artwork outsourcing (Ladyluck digital media, Philippines; Xpex Entertainment, Taiwan; Lakshya Digital, India; Exigent Holdings, India), sound recording (Warner Bros. Studio Facilities, U.S.) and a wide range of localization support (e.g. voice actors, translators, and testers).

127 The physics engine is licensed from the Ireland based game technology company Havok. Middleware is off-the-shelf game technology, which is bought (or licensed) from, often specialized, third party developers.

128 As explained in an OECD report: “Middleware suppliers have usually been small—to medium—size firms with highly skilled staff (mathematicians, programmers) able to exploit economies of scale in R&D by focusing on new technology development across multiple projects, and then licensing their software to games developers” (Beinisch et al., 2005: 19).

today rely more and more on traditional market research, testing with 'expert users' and sales/registered user data to decide what works, what sells and to whom". That is to say, marketing and PR extends beyond mere advertisement and heavily influences all stages of game production and design (cf. Dymek, 2010: 145-147). This point is acknowledged by Kline et al. (2003: 21), who argue that: "[...] promotional practices work their way back into game content—so that considerations of market segmentation, branding, franchising, licensing, and media spin-offs are now present at the very inception of game characters, scenarios, and plotlines". For a Triple-A publisher, this means that when planning a franchise's roadmap, all kinds of internal and external consumer data are used to guide design decisions.

During a franchise's ongoing development, comments and criticism from journalists, fans, critics, retailers, and marketing staff are continuously fed back to the publisher.¹²⁹ How the logic of flow publishing ties into a publisher's marketing strategy and how this process is very much research driven, is illustrated by Activision Blizzard's decision to "innovate in their franchises", rather than launching new intellectual property:

If you really are disciplined, as we are, about spending time surveying your audiences, you can take a lot of that knowledge and the audience can give you a lot of guidance into what they want into their innovative new product. And for the pathway of innovation in a franchise it is easier, better defined than it would in something new (Kotick, 2009).

This is not unique to the Triple-A segment, nor to the cultural game industry. But, as Kline et al. (2003: 202) argue, in the cultural game industry market research is not only "exceptionally important", it has become an "industry commonplace", particularly to keep gamers in the consumptive flow: "Selling gamers a continuous flow of new software puts a premium on knowledge about their changing expectations and preferences". One of the inherent risks of this practice is creating a closed-off feedback loop, which might steer a franchise's trajectory towards exploitation of existing themes in favor of innovative game design. As figure 5.1 illustrates, the marketing process touches all links of the value chain and as such it reifies the publisher's position of power. Because the marketing process is publisher driven and notoriously capital intensive, publishers have become very capable of steering the endless flow of oftentimes trivial information, but also of leveraging the Triple-A game's unfinished

129 This methodology is explored and refined in the case of blockbuster movies, as explained by Gomery (2003: 79): "Studios try using market research to obtain sample feedback from the potential audience. Marketing research usually starts with concept testing, where the research group sees how the audience relates to a specific movie idea. This moves on to testing titles, stars, and even alternative print campaigns. Yet, for all the fancy focus groups, previewing remains at the core of the market research for a blockbuster. At a production preview the production executives work closely with the filmmakers to fine-tune the movie".

commodity form.

There are two notable observations to be made regarding these activities as they pertain to game publishers. The marketing and PR efforts related to next-gen Triple-A games are intensifying rather than slowing down. Moreover, they are not so much the last step in bringing a game to market, but the be-all and end-all of all development and publishing efforts. As is true for major Hollywood productions, marketing, branding and PR is a key strategy to leverage a media firm's competitive advantage (Wasko, 2003). Or, more specifically, what makes a blockbuster truly big, whether it is a movie or game, is not only its development budget, but an evenly impressive, and above all, integrated marketing campaign and an ongoing, all out PR effort (cf. Lewis, 2003; Wyatt, 1994).

The marketing and PR tasks are split among a diverse group of specialists. On the publisher's side there is a group consisting of marketing staff (presidents, vice-presidents, directors, and associates), brand managers (global and associate), marketing communications staff (directors, managers and coordinators), product managers (junior and senior), and PR staff (managers, directors and publicists).¹³⁰ Game development studios, on their part, often have game developers (often studio heads or producers) engage in promotional efforts while also employing dedicated marketing/PR staff (e.g. community relations managers). Triple-A game publishers have their regional headquarters, who are responsible for the actual implementation and localization of campaigns that are mostly centrally planned, designed and financed. A rough indication of a local publisher's tasks is Marcel Keij's (2010) overview based on his position as the marketing director of the Benelux Ubisoft office.¹³¹ Keij distinguishes mass media campaigns (TV, print), online campaigns (e.g. banners on game websites), trade marketing (e.g. in-store promotions), PR (e.g. sending out review copies), and events (e.g. a stand at a local game trade show).¹³²

Overall, publishers are outspoken about their commitment in investing marketing dollars: "With respect to future game development, we will continue to focus on our "big propositions", products that are backed by strong franchises and high-quality development, for which we will provide significant marketing support" (Activision Blizzard, 2009: 19). Marketing

130 The exact titles and job descriptions overlap as every publisher uses slightly different terms.

131 Marketing campaigns are often executed at the national level, where material (e.g. press kits or advertisement copy) is translated and distributed to outlets or journalists. In close cooperation with development studios, the production of marketing material (e.g. trailers, posters, television ads, et cetera) can be outsourced to outside firms. The Modern Warfare trailers and logo, for example, are developed by the California based ad agency The Ant Farm, which also produced *Call of Duty: Modern Warfare 2*'s opening sequence.

132 Many specialized tasks are outsourced by local publishers to local companies such as PR bureaus, marketing communications specialists, media agencies, online agencies, translators and copy editors (Keij, 2010: 164-65).

investments in key game franchises seem to grow as big as the budgets of next-gen games.¹³³

As for the integration of marketing in the value chain, as Wyatt (1994: 15, see also Lewis, 2003) succinctly illustrates for film, the marketing of a property starts well before its production begins:

The high concept film is designed to maximize marketability and, consequently, the economic potential at the box office. This marketability is based upon such factors as stars, the match between stars and a project, a pre-sold premise (such as a remake or adaptation of a best-selling novel), and a concept which taps into a national trend or sentiment.

Similarly, these considerations tie into every aspect of the game publishing effort (funding, planning, and production). As the logic of flow publishing goes to show, it is primarily through repetition on which the majority of Triple-A marketing efforts are based.

What sets a Triple-A marketing plan apart from a similar effort for a book, movie or TV series is that a typical Triple-A marketing campaign starts during pre-production and only stops when a franchise stops and no sequels are published. All the while prospective consumers are constantly bombarded with all kinds of information about a game's genre, theme, developer, publisher, and, of course its "unique selling points", which can be an "innovative" game mechanic (e.g. being able to take cover in a third-person shooter game), an unexplored theme, or simply a bigger and updated version of a previous installment in the franchise—a sequel. It might come as no surprise that game publishers are among the first to heavily experiment with, and invest in the use of social media for marketing purposes.¹³⁴ From the consumer's perspective, a typical marketing campaign is primarily based on building "buzz"—word of mouth marketing—and communicating the innovative aspects of an upcoming title (Kroonstuiver, 2010; Rosen, 2000; Steinberg, 2007).¹³⁵ Consumers are given a taste of the game's progression during the development cycle, which culminates in the release of the game and the subsequent announcement of a sequel. Looking at fan discourse, marketing games seems more of an effort to channel anticipation and guide expectations than traditional

133 Similar to Activision Blizzard, Electronic Arts sees it as one of the pillars of the company's strategy to continuously invest in marketing campaigns. A high profile example being a 30-second Super Bowl television advertisement of Electronic Art's original intellectual property, the action game *Dante's Inferno* (2010), which cost the publisher a reported \$2.5 million to \$2.8 million ("Super Bowl Ad Prices Dip, But Still Pricey", 2010).

134 This strategy is described in the Activision's 2007 Annual Review (2008: 15) as "During the year, we launched an Internet-based customer-relationship marketing program which targeted a broad base of influencers that help generate pre-awareness for our games".

135 The conversational nature of social media (e.g. online social networks) acts as a catalyst for game publishers as gamers use social platforms to engage in a continuous conversation about upcoming titles (cf. Spurgeon, 2008).

marketing efforts based on branding alone.¹³⁶

In other words, Triple-A game marketing follows the trajectory of the unfinished commodity as it is never truly over and should be seen as a perpetual campaign with specific moments in time where a campaign flares up. Such specific moments are well-timed minor and major marketing events. Major events are the announcement of a new title (either an original game or a sequel), the revealing of a game at one of the major game trade shows, and obviously the release of the game itself. Minor events are the release of trailers, demos, screenshots, or other updates about how the game is progressing during development or, more specific to the unfinished commodity, promotional efforts drawing attention to post-launch content. It is the latter category of the well-planned release of ongoing tidbits of information during a game's production that sets it apart from marketing campaigns of other cultural commodities. Major marketing events (announcement, release and special appearances) are part of many marketing campaigns. For example, film journalists are used to talk to movie stars during special press junkets before a movie hits the silver screen; the marketing campaign of a Triple-A game revolves around a tactical reveal pattern which is fully integrated in and often steers the game's development cycle.

A Triple-A game's marketing campaign is intertwined with the franchising formatting strategy. Arguably, consumers have grown accustomed to the steady, and in the case of the *Call of Duty* franchise, annualized output of game franchises. As Kline et al. (2003: 74) argue, the cultural game industry's "profitability rests significantly on trying to synchronize technological innovation, cultural trends, and marketing strategy". The most obvious proof of a marketing department's influence over production would be the release date. The latest installments of the *Call of Duty* franchise have been released in early November. The release date is featured prominently in key marketing assets, for instance the *Call of Duty: Modern Warfare 2* 'reveal' trailer ending with the release date 11.10.09. In sum, before a Triple-A game hits the shelves, it is dissected, discussed and 'previewed' by gamers and game critics many, many times over.

Not part of the value chain, but a crucial ally in marketing campaigns, are critics. From the perspective of those in the game industry, the work of a game journalist is a crucial piece of free publicity (Nieborg & Sihvonen, 2009). Game journalists reporting on Triple-A games effectively act as indispensable mediators between the game industry and game players (Consalvo, 2007). They do not merely act as the mediators of value, but are important

136 The observations in this segment on game marketing and the role of critics and game journalists are primarily based on insights from three-year stint as a (freelance) game journalist for a major Dutch newspaper.

instigators and arbiters of the common value system that has come to characterize the expanding field of games and gameplay (Carlson, 2009).

A key notion to understanding this in-betweenness of game journalism is what Consalvo (2007) calls "game capital", a notion derived from Pierre Bourdieu's work on social capital. Game capital is a fluid and always changing currency held by those who have gained knowledge and information about games and game culture and who are able to voice their opinions or relate their experiences to others. More importantly, game capital holds significant monetary value for game journalists. It is the game journalist who doles out game capital by telling gamers what to play, how, and why. Yet, game publishers and local marketing and PR agencies are indispensable for game journalists to be able to accrue the most valuable pieces of game capital. In the end it is the publisher who grants a game journalist access to exclusive information via interviews, press trips, by lending test ("debug") consoles or sending review copies. Thereby leveraging the journalist's prescribed use of game capital, while at the same time regulating and holding power over those who receive it. As a result, the fate of game journalism is invariably bound up with that of the game industry.

Apart from granting access to crucial industry information, the current political economy of game journalism grants game publishers even more power. Game journalists are part of a triad linking them to audiences and advertisers who together have a mutually beneficial relationship. Similar to television audiences sold as commodities to advertisers (Smythe 1977, Fiske 1987), the readers of game magazines, newspaper pages dedicated to games, blogs and dedicated news websites are turned into a commodity and sold to advertisers, the majority of them being game publishers and game hardware manufacturers. While there are advertisers outside the cultural industries—such as fast food chains, car brands or the military—the majority of advertisements in game magazines and on game websites are paid for by the same industry covered by journalists.

In terms of power, the game industry is in every way the dominant party in the industry-media relationship. Publishers wield considerable power by strategically deploying valuable assets. In addition to the advertising revenue question dealt with previously, there is another way of exerting control: supervising the access to limited information, such as game preview materials, release dates, or behind-closed-doors sessions at trade shows such as E3 or the Tokyo Game Show. Because of the game industry's tight grip on the most valuable source of game capital, the job of a game journalist consists in many ways of balancing acts between a perceived loyalty to the reading public and a strong dependency on industry material. Game publishers not only outsourced the production of quality advertisement material to specialized advertising agencies, through perpetual PR efforts they also successfully outsourced marketing

tasks to game critics.

Commodity extensions: Downloadable Content

One increasingly common way to raise profit margins without compromising a Triple-A game's perceived level of quality, is through branched serialization. As argued in chapters 2 and 3, the publishers in the Triple-A segment follow a very specific publishing strategy. In the words of Activision Blizzard CEO Kotick, rather than saving on production costs or leveraging additional business models, publishers are “more focused on being more efficient in delivering more content” (Kotick, 2009). While authors describing the MMORPG segment generally allude to the extension of the value chain because of the service based character of such games (Humphreys, 2004; 2009), the notion that the typical game value chain can be extended is rarely mentioned.

The logic of flow publishing has its own political economic ramifications. For one thing, the franchising strategy takes a significant amount of creative control away from development studios. Blockbuster games, such as the *Call of Duty* series, are like golden eggs laid by geese (developers) and it is up to farmer (the publisher) to put the geese at ease and to feed them, but also to prevent them from overfeeding, sickness or the urge to escape their predetermined egg laying rhythm. In the research discussing the relationship between developers and publishers, there is little disagreement about the game developer's numerous disadvantages (cf. Dyer-Witheyford & Sharman, 2005). As the disintermediation of the game value chain goes to show, it is important to acknowledge the historical continuities as well as the discontinuation of such trends. While budgets of next-gen projects continue to grow, so do pressures towards value chain disintermediation through outsourcing, continuous marketing efforts and extended commodification.

As we have seen in this chapter and chapter 2, the next-gen era demonstrated a change in the institutional configuration of the cultural game industry as well as a metamorphosis of the blockbuster game. The Triple-A segment gives way to a very specific articulation of power as a result of the for-profit agenda of the associated industrial actors. I argued that the Triple-A segment is dominated by the publisher/platform owner unit and that this intra-industry power relationship shows a high degree of concentration in terms of corporate ownership. At the same time, the Triple-A game transformed from a discrete, purely physically distributed commodity into a hybrid, unfinished commodity that is continually extended via the business strategy of flow publishing. In the next chapter, I will build on this argument and argue that the ability to control cultural production and the circulation of

content through an elaborate set of technological and economic arrangements is a key characteristic of the political economy of the Triple-A segment.

Chapter 6 - A Techno-economic Logic

If movie blockbusters can be defined as “high-cost, high-tech, high-stakes” productions, where “stars, genres, and cinematic innovations invariably are established, where the 'grammar' of cinema is most likely to be refined, and where the essential qualities of the medium—its popular and commercial character—are most evident” (Schatz, 2003: 17), how would one similarly define the next-gen Triple-A console game? And what would the essential qualities of the Triple-A game be? At first glance, there is, at least from an economic perspective, considerable overlap between a movie blockbuster and a next-gen Triple-A game. The essential qualities of both mainstream hit movies and games—their popular and commercial character—are strikingly similar. That is, production costs for an average next-gen console game are high and getting higher every console cycle, and the risks for publishers and platform owners rise accordingly. After that, the comparison begins to break down.

It is not so much that a Triple-A game is more (or less) economically defined than a blockbuster movie, both are essentially cultural commodities “produced and distributed within a capitalist industrial structure” (Wasko, 2003: 9-10). It would be equally hard to quantify the extent to which technology would play a bigger (or smaller) role in the cultural game industry as compared to Hollywood. The high costs of producing a movie blockbuster is partly due to the extensive use of expensive and advanced special effects (Cucco, 2009). Moreover: “in the high-risk contemporary marketplace the blockbuster fundamentally *depends* upon the new technological pleasures it affords its audience” (Allen, 2003: 112-3, emphasis his).¹³⁷ Yet, innovative technology in the cultural game industry does not so much play a bigger role but rather a decidedly different role compared to the movie industry.

Compared to console games, blockbuster movies are relatively platform independent. One can watch a movie in the cinema, buy or rent a DVD which plays on any brand of DVD player (if in the right geographical region), and increasingly one can download or stream movies via the Internet. Conversely, the Triple-A game is fully platform dependent. Simply put, an Xbox 360 game disc is only playable if put in an Xbox 360 (again, if in a specific region). Because of the integrated nature of game hardware and software, the dedicated game console as a hardware platform has a structuring effect on the production and circulation of the Triple-

137 From the introduction to synchronous sound technologies in the 1920's to *Avatar's* (2010) exploration of 3D technology, the movie blockbuster's history is intertwined with the development and integration of new film technologies.

A game, its commodity form and formatting strategies, and, in the end the nature of consumption.

In this chapter I will argue that the political economy of the next-gen Triple-A console game adheres to what I designate as a 'techno-economic logic'. This double logic breaks down into two complementary institutional strategies. The first element of this logic will be discussed in this chapter and concerns the proprietary status of game technology. This includes both hardware platforms (i.e. game consoles) and game software platforms (i.e. the closed-off software code of firmware, operating systems and game source code). Proprietary in this context refers to the closed-off nature of hardware and software platforms that are protected by both physical (e.g. Digital Rights Managements systems and lock-out chips) and legal means, thereby protecting the exclusive rights of its owners (to sell, rent, lease or give away a piece of hardware or software).¹³⁸ The next chapter will take on the second element of the Triple-A segment's techno-economic logic and discusses the continuous process of product innovation, again, of both game hardware and software. The two strategies coalesce; it is the constant innovation of proprietary technology that defines the Triple-A's commodity form, reflecting the integrated nature of console game hardware and software production, circulation and consumption.

The techno-economic logic is an institutional logic that stands for a specific distribution and operationalization of power. By deconstructing the twin logic of platforming and innovation I will demonstrate how and why power in the Triple-A segment is structured and maintained, and increasingly, concentrated. The techno-economic logic is tied to the wider discussions on access to the means of production and circulation and begins to explain how power is primarily granted to those industrial actors who are able to effectively exploit high capital (Suarez-Villa, 2009). As a result of the processes of commodification and spatialization, the Triple-A's unfinished commodity form and the concentrated nature of industrial ownership, are directly related to the way in which the dominant industrial actors in the Triple-A segment leverage the double logic.

Platform owners and game publishers put up high barriers to entry for Triple-A production and regulate distribution via closed-off proprietary hardware. In the current "Age of Access", as Jeremy Rifkin (2000: 177) notes, power "belongs to the gatekeepers who control both access to the popular culture and the geographic and cyberspace networks that

138 In "The GNU Manifesto" (available at <http://www.gnu.org/gnu/manifesto.html>) Richard Stallman distinguishes between proprietary software (which can be free, as in gratis) and free software (i.e. "software that comes with permission for anyone to use, copy, and/or distribute, either verbatim or with modifications, either gratis or for a fee").

expropriate, repackage, and commodify the culture in the form of paid-for personal entertainment and experiences". Industrial actors, platform holders in particular, derive power because of the capital-intensive industry dynamic of perpetual innovation. In other words, to wield power is to put high capital to effective use by always staying one step ahead, implicitly promoting technological obsolescence, through investing heavily in research and development while at the same time fencing off unwanted (i.e. unprofitable) appropriation strategies of users or competitors (Slade, 2006; Schäfer, 2011).

Over the last decades, in between on-off moments of consolidation, markets in developed countries have seen the rapid expansion of the availability and adoption of innovative game platforms. To trace back the console's history provides a deeper understanding of how technological, economic and socio-cultural standards have been set, how business and industrial practices have been developed, and how these factors shaped the commodity's form and formatting strategies. In short, the seeds planted that ultimately led to the seventh generation of dedicated console hardware. What is rather implicit in this brief history of the emergence of the home console is the process of constant innovation—the constant upgrading of both software and hardware platforms—which will be discussed in-depth in the next chapter.

If anything, the techno-economic logic is a dominant logic. It embodies the taken-for-granted nature of for-profit production by leveraging the status quo; i.e. the relentless commodification of culture and the increasing concentration of industrial ownership. This hegemonic power, however, is challenged by a profound shift in the information economy's institutional architecture (Benkler, 2006). In the next section I will briefly reflect on the structural changes in the information economy's modalities of production and argue that even though there are numerous ways to engage in cultural production outside the boundaries of the for-profit firm, the proprietary nature of the dedicated console as a hardware platform means that those industrial actors in the game value chain remain in full control over the means of cultural production and distribution. In the end, the techno-legal regulatory framework set up by platform owners far extends the levels of control that were in place in the pre-networked era when physical commodities reigned supreme.

6.1 The project of control

Information and communication technologies, produced, distributed and used by global networks of consumers and producers, are said to be the main instigators of changing patterns of production, distribution and consumption. One way to account for this transformation is to acknowledge the rise of the “networked information economy”, a production modality theorized by Benkler (2003, 2006) as being the opposite of, but existing alongside, an “industrial” modality of production. A networked model of cultural production is said to be commons-based, nonproprietary, nonmarket, radically decentralized, and peer produced.¹³⁹ As such, this non-industrial modality of production is diametrically opposed and radically different from the for-profit nature of Triple-A production. The success and sustainability of the 'old' industrial model rested on two trends, which, in the words of Benkler (2006: 32-33), are “central to the project of control”: the commodification of culture and the concentration of industrial ownership. As I argued in the previous chapters, both trends are central processes constituting the political economy of the Triple-A game.

Two complementary shifts in the cultural industries at large, one related to cultural production and the other to circulation, directly challenge these two trends and change the material conditions and subsequently the institutional ecology of the information economy, and thus possibly of the cultural game industry. The first shift concerns the lowering of the various barriers for non-industrial actors, or users (e.g. fans, bloggers, gamers, students, artists) to engage in non-market (i.e. non-profit) production (Jenkins, 2006b). The lowering of these material and immaterial barriers leads to, for example, a vibrant blogosphere or the production of open source software. This shift does not only concern original creations, but also includes the ability to build upon, extend and transform for-profit (i.e. industrialized or market) productions (Bruns, 2008). In other words, the means of cultural production have been radically democratized, allowing users to compete against or mimic industrialized production practices. As a result, there is an abundance of 'raw material' (i.e. information, knowledge, and culture) needed to engage in such practices. The Internet, the best-known incarnation of the networked information economy, provides the large majority of this raw material. In an interview with the Wall Street Journal David Weinberger argues that the Web is:

139 The networked modality of cultural production can be an equally efficient, or in some instances a more efficient, way to organize production and circulation, e.g. Wikipedia, Linux, or Apache server software (Bruns, 2008; Von Hippel, 2005).

[...] better understood as providing more of everything: More slander, more honor. More porn, more love. More ideas, more distractions. More lies, more truth. More experts, more professionals. The Web is abundance, while the old media are premised—in their model of knowledge as well as in their economics—on scarcity (Keen & Weinberger, 2007).

As I will argue later in this chapter, it is exactly the ability of industrial actors to artificially create and maintain scarcity, which provides them with power.

The second shift challenging the still dominant mode of industrial production concerns the democratization of the distribution of information, knowledge, and culture. The advent of affordable broadband internet connections, the existence of stable peer-to-peer networks, and the development of easy to operate sharing software allow for scalable, highly effective decentralized distribution networks. As Benkler (2003, 2006) and Zittrain (2008) contend, the networked PC has a vital role in this process and its role as a production and distribution tool will be discussed later in this chapter. Further, this second shift is related to the digitization of information, as well as the lowering of “transaction costs” (Benkler, 2002). Sharing information, think of, distributing text, pictures, video and, indeed, games, has never been easier (Shirky, 2010).

The scale and scope of non-industrial information production is truly unprecedented and partly because of that it has received overwhelming intellectual attention. Among many others, marketing scholars (Prahalad and Ramaswamy, 2004), journalists (Reynolds, 2006), politicians (Gore, 2007), futurologists (Toffler, 1980), and an army of business consultants (Li & Bernoff, 2008; Qualman, 2009) sketch a mediatized utopia where technology has significant emancipatory effects challenging existing technological and economic barriers. Others argue that the widespread diffusion and adoption of innovative technologies has serious democratic potential.¹⁴⁰ That is, through the use of blogs, wiki's, social networks, and virtual worlds, ordinary users collectively have the “power of mass creativity” (Leadbeater, 2007), networked technologies are said to enable “mass collaboration” (Tapscott & Williams, 2006), or facilitate “group action” and granting users the power of “organizing without organizations” (Shirky, 2008).

Various societal, cultural, and economic shifts led, generally speaking, to a more open and connected society, while facilitating more flexible modalities of production and consumption. For one thing, changes in the overall ecology of the burgeoning information economy led to a constant renegotiation between the once mighty and unquestioned power

140 Particularly the sole focus on the democratic potential of Internet usage has recently been criticized and dubbed as one-sided and “cyber-utopian” by Morozov (2011).

of industrial actors and the agency of consumers. As many a magazine and book title seems to suggest, this emancipatory potential affects the position of the Internet user; “We are the media” (Gillmor, 2004), “We Think” (Leadbeater, 2007), and “You” are Time Magazine's Person of the Year (Grossman, 2006).

The consumers of Triple-A games, on their part, are massively creative as well. They pry open and modify game-related hardware, and engage in a wide range of typical fan productions by archiving, annotating, appropriating and recirculating media content in ways never before possible or affordable (Jenkins, 2006a: 17-24). The amount of game related (and inspired) user created material, from fan websites to wallpapers (Lauwaert, 2009; Sihvonen, 2011), from songs to machinima (Lowood, 2007), and from strategy guides to reviews (Consalvo, 2007), is simply staggering. On top of that, for a small set of next-gen Triple-A games, paid-for downloadable content (PDLC) is complemented by non-market peer produced offerings. For example, user-created tunes for *Guitar Hero III: Legends of Rock* (2007), levels for the platform puzzle game *Little Big Planet* (2008) and its sequel *Little Big Planet 2* (2011), maps for the first-person shooter *Unreal Tournament III* (2007), and race tracks for the racing game *ModNation Racers* (2010).

One could (or should) debate the cultural game industry's position vis-à-vis its users and what role the industry exactly fulfills with regard to the mind-boggling quantity of user created content. In practice there are significant technological, legal and economic limits as to what users are able and allowed to create, how to distribute their content and to whom (Nieborg, 2005a). Whether users, given that they want to do so, are able to distribute their non-market products, e.g. works of art or complementary industrial-like productions, at the same scale and scope of market production, is highly questionable (Nieborg & Van der Graaf, 2008). Many such practices, and this goes for all aforementioned examples of Triple-A game related user-created content, are extending industrial cultural production, or are complementary at best, rather than substitutive (Schäfer, 2011). To be sure, I would be the last person to question the quality and cultural meaning of such contributions, nor do I mean to trivialize the pleasures these practices grant to hackers, modders and fans.

That said, in many instances user created content directly extending core games (e.g. the aforementioned modifications, levels and maps), is either directly or indirectly, appropriated and commoditized (Coleman and Dyer-Witthof, 2007; Kücklich, 2005; Postigo, 2003, 2007, 2008; Sotamaa, 2009). Practices which supposedly fall outside the scheme of capitalism, think of the “free labor” of fans in online participatory cultures (Terranova, 2002), is largely institutionalized into the cultural game industry (cf. Jeppesen & Molin, 2003; Jeppesen, 2004, 2005, Von Hippel, 2005). Moreover, even though nonmarket based production may

thrive, both shifts—the changes in the organization of cultural production and distribution—equally apply to industrial actors.

As a result, one of the contradictions underlying the rise of the information economy is the “collision of interests” of an industrial model—a top-down, for-profit, closed and proprietary model of information production—vis-à-vis a nonmarket, more open, i.e. a networked, commons-based model (Balkin, 2006: 21). Both models are thriving because of the ability to leverage the same technological and economic affordances (e.g. the lowering of transaction costs). From a market or for-profit perspective, the Internet “has caused an explosion in the opportunities for business to make money by making old businesses work better” (Lessig, 2008: 121). Think of American enterprises such as Amazon.com for book selling or Netflix for movie rentals.

An often downplayed or overlooked aspect in many discussions on the rise of the networked economy are the material continuities in the diffusion of networked technologies (Bermejo, 2009; Bustamente, 2004; Mansell, 2004; Suarez-Villa, 2009; Van Dijck, 2009; Van Dijck & Nieborg, 2009). The ease with which users are able to engage in meaningful cultural production is only one side of the coin, or rather, one side of an economic continuum. The other side is not populated by heterarchically organized peer producers engaging in non-profit production, but by powerful, transglobal, hierarchical corporations. Electronic Arts and Activision Blizzard clearly qualify as inhabiting the far end of the industrial information economy.

The question, then, is how these two modalities of production and distribution—the networked versus the industrial—relate to each other. Does, as Benkler (2006) suggests, the networked era featuring a bottom-up mode of decentralized production co-exist alongside the industrial era ecology of top-down production? Or, should we speak of an era of convergence during which 'old' industrialized media institutions facilitate and appropriate largely decentralized peer produced online practices (cf. Jenkins, 2006a). Considering the processes of ownership concentration and commodification of culture running parallel to the democratization of cultural production, I follow Lessig's (2008) notion of a “hybrid economy” in which transactions from the “sharing” (i.e. networked) information economy complement those of the “commercial” (i.e. industrial) economic realm (and vice versa).¹⁴¹ For example, Lessig chronicles how Hollywood movie studio Warner Bros. (owners of the *Harry Potter* film rights) came to the conclusion that the hybrid economic model was the best way to both

141 “The hybrid is either a commercial entity that aims to leverage value from a sharing economy, or it is a sharing economy that builds a commercial entity to better support its sharing aims” (Lessig, 2008: 177).

generate surplus value and not alienate dedicated fans (cf. Consalvo, 2003). Similarly, game publishers have demonstrated over and over again their ability to skillfully appropriate, incorporate and commodify the immaterial labor of a multitude of creative, digitally networked gamers (De Peuter & Dyer-Witheford, 2005).

Even though, as I argued in chapter 2, the next-gen era is a period of transition, the notion of a hybrid economy is relevant to the Triple-A business because it stresses the economic and institutional continuities amidst rapid technological change. The Triple-A segment stands with one foot in the industrial age and with the other in the networked era. The business strategy of flow publishing reflects this hybridity, the Triple-A game being both a physical good combined with digital extensions, combining the transaction based publishing model and the more ephemeral logic of flow. As such, game publishers and platform owners in the Triple-A segment operate a pre-dominantly analogue business model in a digital world.

Against the background of this fundamental shift in the ecological lay-out of the information economy, it is the game industry's ongoing expansion, its economic validity (for investors and shareholders) and its growing economic volume, which all point towards the successful appropriation of the tried and tested capitalist ideology of commodification and concentration of ownership and capital. Or, as Stephen Kline et al. (2003: 41; cf. Jenkins, 2004) argue: "We need to find a way to both maintain a critical perspective on power relations and to account for the unprecedented processes of feedback and participation presented in digital culture". From a political economic perspective, the question is not solely whether or not prevailing and emerging techno-economic arrangements in the cultural game industry afford instances of non-industrial authorship, because they do. Rather, the question is whether or not a networked modality of production is able to alter prevailing power relations among actors in the Triple-A segment, as well as between industrial actors and consumers.

The era of incumbents

If a networked approach to cultural production has such unrivaled democratic potential, why have there been so few new entrants in the Triple-A segment? The next-gen era clearly is the era of incumbents. The next-gen era did not coincide with the advent of a new platform holder, nor did the Triple-A segment give way to the rise of new game publishers. On the contrary, looking at the Triple-A segment, the big got bigger and the ongoing concentration of industrial ownership is anything but slowing down. Just as Triple-A games series started over a decade ago got next-gen sequels, the Xbox 360 and Playstation 3 are, in many ways, predictable continuations of sixth generation hardware. While sporting bigger storage media,

better networking capabilities, more advanced controller input and, above all, more powerful graphics (i.e. computational) capabilities, these machines are neither a technological break with past generations, nor is their underlying business model radically altered.

As argued in the previous chapter, those industrial actors affiliated with blockbuster production and distribution follow the logic of boom or bust. While the revenue of some publishers keeps growing, for example in the case of Activision Blizzard, either through natural growth (expanding markets), strategic expansion (mergers and acquisitions) or both, many others have gone out of business. Publishers went bankrupt, independent developers went broke or pulled out of the blockbuster business altogether and a significant number of in-house studios had their doors closed by their publishing overlords. As opposed to many new entrants of all stripes in the cultural game industry as a whole, the Triple-A segment's declining number of active, let alone profitable, game publishers and game development studios was not offset by newcomers or non-industrial actors.

It is not that game development studios are unable to leverage new information and communication technologies to start new businesses. On the contrary, competition inside the game industry is on the rise as the physical and monetary capital needed to develop, for example, a web based game or a game for one of Apple's handheld devices is considerably less compared to the capital needed to engage in your typical next-gen blockbuster production. While the web, as argued by Weinberger—and to a certain extent the more accessible hardware platforms (to publishers) such as PCs, tablets or smartphones—operate according to the logic of abundance, the Triple-A segment still operates under the logic of scarcity.

Speaking of Hollywood blockbuster film making, Jeremy Rifkin (2000: 27) points to the two main prevalent mechanisms of control positioned to maintain scarcity:

[...] although the network approach to commercial organization has brought an increasing number of smaller firms into the industry, the major studios and entertainment companies still exercise control over much of the process by their abilities to partially finance production and to control distribution of the product.

That is to say, similar to this prevalent business logic associated with Hollywood, the barriers to entering the Triple-A segment, in terms of knowledge and (monetary) capital, are relatively high while the means of circulation are highly institutionalized through technological lockout mechanisms and strict copyright regimes.

In the remainder of this chapter, I will argue that the Triple-A segment's underlying, structuring techno-economic logic of perpetual innovation and a proprietary platforming strategy is an institutional logic. It reflects a set of rules, some implicit, some explicit, to which

all industrial actors adhere to. These rules are a mix of industrial practices and business models, and are mutually constituted by intra-industrial arrangements and industry-consumer relationships. The ability to control cultural production and the circulation of content through this elaborate economic arrangement and through physical and legal protection schemes, is a key characteristic of the political economy of the Triple-A cultural game industry.

Political economic theory, then, especially the work on the concentration of ownership, the commodification of cultural production, and the political economy of intellectual property, is crucial to gain a deeper understanding of the “shifting forms of control along the production, distribution, and consumption circuit” (Mosco, 1996: 25). The technological and legal barriers controlling the end-point distribution of games, both physically and online, represent a direct form of power for hardware platform owners like Sony and Microsoft. Because of the platform owner's proprietary control over the next gen console, power is operationalized by only granting access to highly industrialized, corporate, for-profit actors and denying access to others.

Regarding the process of innovation, political economist Robin Mansell (2004: 102-103) poses a set of valuable questions to contextualize “the structures, processes and consequences” of this articulation of power, asking: “How is technological innovation in the new media field being structured; by whom and for whom is it being negotiated?” First of all, these questions point towards the high degree of hardware/software integration in the Triple-A segment, granting platform owners a significant degree of power as they can ultimately decide whether to give third parties access to a console. Second, stringent intellectual property, trademark and patent protection schemes hold back innovative use of game hardware (Schäfer, 2011). Console hardware is closed off through a series of both legal and technological protection schemes and this means that while innovative hardware may enter the living room, there seems little room for innovative non-market usage of game consoles.

As the advent of the unfinished commodity shows, the rise of networked distribution capabilities has been, above all, seized by game publishers as a moment of opportunity. For game publishers the digital distribution of cultural commodities becomes an increasingly attractive value proposition. Consider, for example, the lower costs of digital distribution by bypassing considerable retail margins and the investments in physical logistics (i.e. manufacturing and transportation), as well as the benefits of a more direct connection to the consumer. In the end, the proprietary platform strategy provides its owners not with less, but more control. As Lawrence Lessig (2008: 100) explains: “Technology can regulate more effectively. Technology can control every use. The law ratifies the control that technology would impose over every use”. It is the combination of copyright laws predicated on a pre-

networked, industrial point of view, which grant platform owners full control over the means of production (via the distribution of proprietary development kits), circulation and consumption.

As a result, the Triple-A experience is, arguably even more so than ever before, a fully commodified one. From the point of purchase to actually playing a title, the fundamental practice of engaging with a blockbuster game is defined, regulated, and brought to you by commercial entities. The supposedly emancipatory effects of networked technology are nullified by the industrial orientation of the cultural game industry. A view echoed by political economist Enrique Bustamante (2004: 817):

[Empirical] observation does not warrant the view that either technology or the market, by virtue of their own dynamics, will be able to guarantee the existence of balanced cultural industries in the Digital Age; nor will it be possible to reconcile the dominant economic perspective with democratic diversity (both ideological and creative).

In other words, the current nature of blockbuster production and circulation, operationalized through the twin logic of innovation and platforming has profound effects on the nature of the next-gen Triple-A game as a cultural commodity. To gain a deeper understanding of the implications of cyclically updated game hardware platforms, in the next section I will draw on the recent work done in the field of (media) economics and game studies to put the so called “platforming strategy” in a political economic and historical context.

6.2 The platforming strategy

For gamers the world of video game hardware platforms (i.e. game consoles) has been rather straightforward, given that gamers are somewhat rational in their purchase decisions by considering the availability and affordability of a hardware platform and preferring a decent range of games to pick from (cf. Nair, 2007). While the most dedicated fans might want to buy every piece of new hardware that hits the shelves, the great majority of players (or their parents or friends) never had more than three serious options. As opposed to buying the right game, choosing which hardware platform to invest in has always been a comprehensible proposition. The sixth cycle (1998 - 2008) spawned the Playstation 2, the Nintendo Gamecube, and Microsoft's Xbox, while the seventh cycle launched the Playstation 3, the Xbox 360 and the Wii. For any industry observer interested in the issue of power, the incumbency of Sony, Nintendo, and from 2001 onwards, Microsoft, raises some interesting questions.

Over the years, there have been three rather different, but in the end complementary perspectives on the relentless 'horse race' between the hardware owners: those of journalists, economists and of game studies scholars. Throughout this section I will draw on their work to get a better grip on the intricacies of the Triple-A segment's techno-economic logic, as well as to discuss the economics underlying the platform owners' business strategies, particularly those related to the Playstation 3 and the Xbox 360. In addition to explaining which firm gained a leadership position during past cycles and how this translates to the current console cycle, I will pay equal attention to the effects of the platforming strategy for industrial actors, consumers and the Triple-A's commodity form.

The first rough drafts of the history of companies developing game consoles have been written by (game) journalists. The actions of the multi-billion dollar companies filled endless columns in newspapers and magazines. More importantly, there has also been a series of worthwhile monographs providing some much-needed historical, institutional and cultural context to the competition between the Japanese and American hardware giants. These books lay bare the companies' corporate cultures and business strategies, and much of the drama behind the closed doors of secretive companies as Sony (Asakura, 2000; Nathan, 1999), Nintendo (Sheff, 1999; Inoue, 2010) and Microsoft (Takahashi, 2002; 2006). Even though these inside stories lack the critical distance and are routinely celebratory of the achievements of businessmen as Sony's Ken Katuragi, Nintendo's Hiroshi Yamauchi, and Microsoft's Robbie Bach and J. Allard, they are valuable sources granting outsiders a sneak peek into backrooms of executives and the business strategies underlying a game console's production and diffusion.

The issue how hardware manufacturers have been able to stay ahead (or have fallen behind for that matter), grasped the interest of a significant number of scholars. As it turns out, while there has been a rather modest amount of work on the political economy of the cultural game industry, scholars of the neo-classical bend (i.e. classical economics, business studies, management studies, innovation studies and media economics), have taken great interest in the interaction between the diffusion of innovative console hardware and a firm's ability to remain competitive (e.g. Eisenmann, 2008; Eisenmann et al., 2006; Evans et al., 2006; Gawer and Cusumano, 2002; Gawer; 2009, Lee, 2009). What these studies have in common is that they are influenced by the work of the French economists Jean-Charles Rochet and Jean Tirole (2003), who were among the first to recognize the basic economic principles specific to the console segment. They also stressed that this basic strategy is not unique to the cultural game industry and is gaining traction among diverse corporations in various industry sectors, each individual firm applying the strategy in a different fashion.

Combining more established economic theories of network economics (Rohlf's, 1974) and the issue of multiproduct pricing (Baumol et al., 1984), Rochet and Tirole contend that hardware owners operate a distinct business model which has a set of specific determinants. These determinants are related to the pricing of both hardware and software and as such influence the diffusion of hardware innovations. Hardware owners as Sony, Nintendo, and at the time of writing Sega, they argued, "make money on game developers through per-unit royalties on games and fixed fees for development kits and treat the gamers side as a loss leader" (Rochet & Tirole, 2003: 990-991). From the perspective of hardware owners, the "gamers side" means that console hardware is sold to consumers at a loss. The consequence of this business model is the observation that platform owners have a coordinating role and need to have both sides (game developers and users) "on board" in order to be able to be profitable, as such making the console business a "two-sided market".

For administrative scholars, the 'leadership question' is a logical point of departure to be able to deduct (or predict) which platform owners is able to sell the most (console) hardware and why. From an economic perspective it is a "chicken-and-egg" problem. What comes first? The number of games available for a new platform, or consumers willing to buy the hardware, is also determined by pricing strategies. The two-sided market theory is indeed a vital first step to deconstruct the core business model underlying the Triple-A segment. It leads us to the crucial notion of "platforming"; the leveraging of standardized technological hardware and software. In the remainder of this section I will position the platforming strategy as one of the two pillars of the Triple-A's techno-economic logic.

Apart from journalists and economists, more recently game studies scholars began

realizing the importance of considering the platforming strategy as a central tenet of the cultural game industry's techno-economic logic. Rather than a purely descriptive or a market based perspective, Nick Montfort and Ian Bogost (2009) offer a humanistic exploration of game platforms, arguing for the need for “platform studies”.¹⁴² In their exhaustive and therefore valuable study of the Atari VCS platform (1977 - 1983) the authors combine a deep knowledge of game history, and the technological affordances and constraints of the game hardware without losing sight of the material conditions of hardware and software production at the time. Their work is all the more relevant to the study of blockbuster games as they go to show how a hardware platform's technological and economic properties influence a game's commodity form and formatting strategies and how these two sets of properties are mutually constituted.¹⁴³

In the field of game studies the work of Montfort and Bogost is an exception to the rule and the notion of platforming received relatively little scholarly attention. For long, the more formalist approaches to the study of digital games focused on the rules-based nature of games and how players relate to them. While there is a recognition that “there appears to be a basic affinity between games and computers” (Juil, 2005: 5), the consequences of the integrated nature of game software and hardware, let alone the economics of platforming, are many times absent from scholarly accounts on the cultural form of the video game or its players. While, as Juil (2005: 7) notes, games are indeed “transmedial” in the sense that they are not tied to a particular platform, a hardware platform and its associated business models, as we have seen in chapter 2 and 3, do influence a video game's textual properties and, in the end, its gameplay and meanings (cf. Jones, 2008).¹⁴⁴

Not downplaying the significance of such early formalist discussions, what is missing from the approach of Juil *cum suis*, is the notion that playing a console game is also a

142 Montfort and Bogost (2009) go as far as trying to create a sub field of game studies. They explain how platform studies comprises of different levels other than the platform (i.e. code, form/function, interface and reception/operation) and how other fields of study can contribute to a better understanding of these levels, and thus of digital media. The computational basis for code to be executed upon is the platform and it is the platform's code with interfaces with the game's code. The interface, then, “sits between the core of the program and the user; it is not the core of the program itself” (ibid: 146). The level of reception then concerns itself with how users understand, and derive meaning from a game's text and rule set. At the basis, the platform level not only structures the game's form but also its production, distribution, and consumption.

143 The work of Montfort and Bogost (2009) inspired Jones (2008: 15-16) who stresses the interaction between the platforming strategy in its institutional setting and its relation with a video game's commodity form: “It seems to me that the job of scholars looking at video games should be to illuminate those connections and boundaries, to trace the material and cultural determinants, from software code to design, to marketing, social networks of players and fans, and to wider cultural fictions and key texts, that help to shape the production, distribution, and reception—which is to say the meanings—of video games”.

144 Salen and Zimmerman (2003: 87, cf. Schell, 2008) provide game designers with a set of traits associated with digital platforms, posing that “A game designer doesn't create a technology. A game designer creates an experience”. These four traits are digital technology's ability to offer immediate but narrow interactivity, allow for information manipulation, automate complex systems, and facilitate networked communication.

decidedly consumerist practice (Molesworth & Denegri-Knott, 2007, Molesworth, 2009). What is rather implicit in the before mentioned economist's account of the console segment as a two-sided market, is the issue of power and how this affects not only the nature of production and circulation, but also the nature of the Triple-A as a techno-economic-cultural artifact and its commodity status. Given the two-sided nature of the game business, platform owners hold a formidable position of power that extends far beyond the architecture of a console's hardware. What seems to be inherent to the epistemological orientation of neo-classical economics is the unquestioned and taken-for-granted nature of an industrial approach to (cultural) production. As we will see later in this section, following the industrialized and commodified nature of Triple-A segment, hardware owners collectively opted for a standardized and highly controlled interpretation of their platforming strategy.

While the competition among rivaling hardware owners has always been a worthwhile discussion for many a gamer, critic or journalist, the implications of this ongoing 'war', as it is often referred to, are equally in need of critical attention. Let me draw on the war analogy to first question how the hardware war is fought by digging deeper into the individual elements of the platforming strategy as it is practiced industry wide, and subsequently within the Triple-A segment. I will argue that the next-gen console is best understood as a proprietary platform; the platform owners hold on to their ability to exercise their (intellectual) property rights. Cultural commodities developed and distributed in other sectors of the cultural industry become more and more platform independent as digital content increasingly finds its way to consumers through the Internet. Generally, a piece of video or music can be enjoyed on various hardware platforms, either proprietary or non-proprietary. Conversely, the Triple-A segment of the game industry is totally and completely dependent on the commercial exploitation of innovative hardware platforms. Playing an Xbox 360 game on any other platform than the Xbox 360 is impossible. Platform holders, then, exert absolute power over those who are able to develop and distribute games.

Before providing a fuller picture of the next-gen game console as a proprietary platform, I will take a historical perspective on the evolving nature of game hardware and software and their associated standards vis-à-vis the industry's business model, the Triple-A game's commodity form, intra-industry relationships, and the industry's underlying business. That is to say, my aim is to account for today's techno-economic standards underlying the proprietary platform. As any student of warfare, I will chronicle the history of past battles and point to several key moments during the last decades, which invariably shaped and made the seventh generation of hardware into what it is today. The seventh generation should be seen as a confluence of six generations, the rise of the networked affordances, and the

development of complementary technologies such as microchips, TV's and storage media. This section will close with a reflection on the costs of warfare and the implications of the platforming strategy for individual and social actors.

Setting the standards: The emergence of the dedicated console

The video game console is often referred to as a "dedicated" video game home console. It is dedicated in a triple sense: to playing games, to the television set, and to sustain a dual business model operated by platform owners and game publishers. One of the continuities during subsequent console cycles is the tendency of platform owners to constantly seek out ways to judicially, technologically and economically lock down the platform and exert as much control over its platform as competitors, users, business partners, and in the end, the law permits.

The 1977 launch of the Atari Video Computer System (VCS) could be seen as the starting point of a new era of affordable dedicated home videogame consoles. The Atari's hardware and chip design was purposely designed to on the one hand imitate existing game forms, particularly hits from the arcade, and on the other hand allow for enough (technological) room to experiment with new formats. The Atari VCS might not have been the first mass produced console, that honor goes to the Magnavox Odyssey (1972), but it was the "first widely popular one" which captured the attention of millions of gamers around the world (Montfort & Bogost, 2009: 4-15). Consumers had the expendable income to buy their own dedicated gaming machine and put it next to the TV set, moving away from arcade cabinets set up in public places like bars.

The Atari VCS not only cemented the link between the game console and the television (Murphy, 2009), the machine accounted for many firsts and set the tone for subsequent generations of consoles. First of all, the machine was easy to operate. It launched and popularized innovations such as games in color, interchangeable cartridges and controllers (e.g. paddles and joysticks), longer single-player sessions as opposed to short arcade oriented gameplay, the use of licensed IP (e.g. *E.T. the Extra-Terrestrial*, 1982), new videogame genres and novel formats (Montfort & Bogost, 2009). The platform paved the way for the launch and subsequent rise of Activision Inc. (1979), the first third-party game publisher and a company that, four decades later, came to dominate the Triple-A market segment. But, arguably the most significant invention popularized during the Atari-era was the business model explored by Atari Inc.

The so called 'razor/blade model' meant that the Atari VCS was relatively affordable

and money was made (by Atari) on the sales of game cartridges, through royalties, rather than hardware. From an economic perspective the model is a two-parts tariff system where end-users pay an access fee—the price of a game—and game publishers pay a usage fee: royalties and licensed development kits (Evans et al., 2006: 122-23). Many of this business model's central tenets, or what economists refer to as the “two-sided market model” (Rochet & Tirole, 2003), still underlie the console market segment. The business model would be refined over time, for example by introducing the formatting strategy of flow publishing.

In addition to exploring the capabilities of game hardware and peripherals, Atari's tenure as a game developer marked a period of intensive experimentation. Yet, Atari's rise (and subsequent fall) also showed what could happen if that same company in its role as a platform owner loosened its grip. The economic crash of Atari Inc. in 1983 and the company's subsequent split-up and selling off in 1984 became an event etched into the collective memory of those working in the burgeoning game industry (Donovan, 2010; Kent, 2001). It was a simple yet powerful lesson: too little quality control over games published on a platform and overly exploiting intellectual property were two mistakes to be avoided at all costs.

Meanwhile, Nintendo picked up the baton dropped by Atari and launched the Nintendo Entertainment System (NES) in the US in 1985, and a year later in the EU. Named the Famicom (Family Computer) in Japan, Nintendo's console perfected the razor/blade model by manufacturing hardware as cheaply as possible and profiting from game cartridges. The NES upped the ante in terms of revenue and net profits. It also was an end of the culture of the programmer as “auteur” who singlehandedly produced a game cartridge from start to finish, together with artwork for marketing usage, as in the early days of the Atari VCS (cf. Buckland, 2003).

Nintendo's style of doing business was more corporatized and more rationalized than Atari's and the company wielded significant control over its platform. One of the results was that a very small number of annual high-quality releases was valued over a higher number of minor successes (Sheff, 1999: 38-41). As we have seen in chapter 2 and 3, and will see in chapter 8, two decades later the 'bigger, better, fewer' strategy again became a central tenet of not only Nintendo's blockbuster mentality, but of all of the third-party Triple-A game publishers. The Japanese mogul went on to formalize the role of the game development team as a next step in the ongoing rationalization of cultural production (cf. Ryan, 1991).¹⁴⁵ The

145 Compared to today's standards, particularly considering the annualization of the franchise strategy, Nintendo development teams seem to have had more creative freedom. Also Nintendo's marketing department was said to not pre-test every single idea coming from the development teams, as is common today (Gershenfeld et al., 2003). Still, Nintendo's upper management ruled the publishing schedule with an iron fist.

'quality over diversity' approach extended to Nintendo's relation with third-party publishers and the company had full control over the entire value chain. While non-Nintendo titles were published on the NES platform, they came at, quite literally, a high cost for third parties. As an indirect instrument of quality control, NES cartridges had to be ordered through Nintendo, which demanded a minimum order of 10,000, to be paid in cash, in advance. In addition, Nintendo charged a nine to \$14 royalty per cartridge (Sheff, 1999: 214-15). A special built-in lockout chip prevented third parties from publishing game cartridges for the NES without approval. And, what by today's standards seems like a draconian measure, Nintendo put a non-compete clause in the contract of third-party publishers, which prevented them from publishing games on competing platforms. This set of restrictive policies provided Nintendo with a way to exert total technological and economic control over their platform.¹⁴⁶

Nintendo's successful entry into the console business institutionalized the cultural game industry's blockbuster segment in two ways. First, Nintendo's economic achievements led to the concentration of corporate ownership, mirroring a market structure that has become familiar to the cultural industries (Hesmondhalgh, 2007). By creating a proprietary, highly controlled software and hardware standard, combined with aggressive marketing and well timed, high quality releases, Nintendo was able to create a virtual monopoly throughout the second half of the 1980's. Just like the Atari VCS was, for a short period, synonymous with 'a game console', Nintendo became the *de facto* supplier of digital play. Nintendo was caught in an upwards spiral. Consumers bought a NES because other families had them as well, more Nintendo games were bought, third-party publishers had an even bigger incentive to develop for the NES, and Nintendo became bigger and thus more able to exert control over its platform. As Reiji Asakura (2000) documented, long-term incumbency in the console segment is rare and Nintendo's iron rule over third-party publishers and retailers would backfire over time. The company's position made third-party publishers and developers eager to jump ship when a new console entered the market, which is exactly what happened during the 1994 launch of the Playstation.

Secondly, Nintendo's control extended inwards as well by setting the standard of industrial authorship. While the company's development teams were relatively autonomous, soon newly explored formatting strategies became a way for Nintendo to reduce the high risk of developing and publishing new games. The most common and simple way to exploit the

146 "As Nintendo captured a larger share of the U.S. video game console market—reaching 90 percent in 1987—American third-party game developers began to come on board. At the same time, however, the Federal Trade Commission also started taking an interest in Nintendo. Under its scrutiny, Nintendo stopped setting retail prices for its games, dropped the exclusivity clause in its licensing agreements, and let developers make their own cartridges" (Evans et al., 2006: 126).

company's own intellectual property became serialization. The iconic game character Mario would appear in more than 200 Nintendo games and countless games by third-party developers.¹⁴⁷ Gamers knew Mario, anticipating future iterations in the series. Similar to a concentration in industrial ownership, i.e. having a set number of third-party developers who would be able to publish a set number of games through direct and indirect control by Nintendo, the NES signaled a formalization of cultural production. Nintendo's development teams focused on a set series of games featuring Mario, Link or Semus. In the wake of Atari's downfall, Nintendo showed that walking the fine line between creativity (of game developers) and capital (risk-averse development practices) could not only be done properly, it could be very profitable.

Nintendo's success put forward a techno-economic template for future hardware generations. One thing was certain, the way to "print money" was to seize as much control as possible.¹⁴⁸ By default, every game console after Nintendo became a closed-off proprietary platform. In the words of longtime Nintendo president Hiroshi Yamauchi: "Nintendo believes in a standard. Our standard" (Sheff, 1999: 386). Sony, while building its business alongside Nintendo, took over the baton from Nintendo and came to dominate the fifth and sixth console generations.¹⁴⁹ The Playstation, in this sense, did not fundamentally alter the core business model underlying the blockbuster segment's two-sided market model, but tweaked individual elements, such as the console hardware internal and external architecture, marketing strategies, the relationship with retailers, the focus on expanding the overall market, and a less stringent control over third-party publishers (Asakura, 2000).¹⁵⁰ In the end, one of the main reasons Sony, despite fierce competition of Nintendo and Sega, was able to gain platform leadership was the company's ability and expertise in marketing, sales and

147 Legendary Nintendo designer Shigeru Miyamoto headed the development of two famous arcade games, *Donkey Kong* (1981) and *Mario Bros.* (1984), before starting to work on NES games. The *Mario* franchise was born: "Between 1985 and 1991 [Miyamoto] produced eight "Mario" games. An astounding 60 to 70 million were sold making Miyamoto "the most successful game designer in the world" (Sheff, 1999: 55).

148 The notion of Nintendo's hardware "printing money" is a popular Internet meme (i.e. a animated image of Nintendo's Miyamoto and Iwata holding a Nintendo Wii saying: "it prints money"). Know Your Meme. 2010. Available: <http://knowyourmeme.com/memes/it-prints-money>. Last visited: November 3, 2010.

149 This brief historical overview is, of course, far from complete. It does not account for the vital role Sega played during the late 80's and early 90's, nor for less popular consoles as NSK's Neo Geo (1990) or Hudson Soft and NEC's TurboGrafx-16 (1987).

150 On top of that, Evans et al. (2006: 130) point at Sony's extensive third-party publisher support: "An important factor in Sony's success was its provision of an unprecedented array of development tools and software libraries that made it easier to write games to the Playstation than to the competing systems from Nintendo and Sega." The wooing of third-party game publishers led to a series of blockbusters which would propel the platform forward; i.e. Namco's launch title *Ridge Racer* (1994), Square Soft's Roleplaying game *Final Fantasy VII* (1997), and Polyphony Digital's race simulator *Gran Turismo* (1997).

engineering (Alvisi et al., 2003).¹⁵¹

Market choice boxes

During consecutive hardware generations, the 'pure play focus' would change over time, up to a point where the dream of technological convergence, of having a “black box” in the living room (cf. Jenkins, 2006a) through which all kinds of content would flow is no longer a pipe dream. What changed as well were the media formats, from cartridges to CD-ROMs, to DVD-ROMs, to Blu-ray discs. These standardized media formats are fully integrated into a console's hardware and determine not simply a game's production, but also all other linkages of the game value chain.¹⁵²

The design and architecture of console hardware has always been highly dependent on innovations, both technological and economic, outside the cultural game industry. In the mid-1990's, at the dawn of the 'dot-com bubble', when the Internet was also known as the “national information infrastructure (NII)”, scholars in the field of business studies eagerly anticipated the large scale commercial exploitation of web-based services (Benjamin & Wigand, 1995). What to do with this tremendous business opportunity? The Internet provided a chance to get into more direct contact with customers, either by providing businesses with a sales platform to sell physical goods, or to directly sell consumers virtual goods and services. A central development in the emergence of these “electronic markets” was the adoption by consumers of so called “market choice boxes”, i.e. “the interface between the consumer and the NII” (ibid: 64). The Playstation 2 (2000) and the Xbox (2001) were launched during the height of the 'dot-com bubble' and its platform owners sparsely experimented with ways to expand their core business beyond physically distributed single-player blockbusters.

As PCs, and later laptops, netbooks and tablets entered the domestic sphere, these platforms became a whole new breed of market choice boxes. Yet, more so than your all-purpose household PC, and more so than the previous generations of console hardware, the next-gen dedicated console corresponds with the anticipated usage of the market choice box envisioned over fifteen years ago. In many ways it embodies the perfect virtual storefront: a

151 Alvisi et al.'s (2003) account is different from Asakura's (2000), as opposed to the Japanese tech analyst, the Italian academics stress “the impact of unintended and unaware decisions” and “consequences of unanticipated events” which structured Sony's decisions regarding the Playstation's business strategy. Conversely, Asakura's account is much more teleological and highly celebratory of the “brilliant” choices made by Sony's upper management (i.e. Ken Katuragi).

152 The CD-ROM media format not only provided Sony with a media format which was considerably cheaper to manufacture, but the format also allowed for, in comparison to cartridges, quick reproduction and changed the relationship between retailers, publishers and Sony (Asakura, 2000).

physical device with an accessible graphical user interface that channels and controls the selling of virtual goods (i.e. games, movies, and miscellaneous game related virtual items such as avatars and wallpapers).¹⁵³

It took some time before critics and analysts realized the game console's potential role as a platform for consumption, and what the implications of the commodification of play might be for the Triple-A game commodity's form and associated formatting strategies. Compared to previous hardware generations, the next-gen platforms' business models marked a subtle, but nonetheless significant shift. The advent of the unfinished commodity meant that even though the razor-blade model remained fully intact, and the market remained decidedly two-sided, the formatting strategy of branched serialization resulted in an even higher integration of platform owners and (third-party) game publishers. The digital distribution of additional content transferred much of the power previously held by retailers to Sony and Microsoft, and turned the platform, and thus the platform holder, into virtual storefronts. With power comes responsibility and for platform owners their newfound power also meant that it had to reify and extend its control over its market choice box.

What the histories of Sega, Nintendo, Microsoft and Sony tell us is that during the development of new console hardware, the platforming strategy is stripped down to a series of technical, tactical and strategic choices to be made by platform owners. At the lowest (technical) level of warfare, there is the question of the design of its main weapon (the hardware platform). A platform owner has to make decisions as to how to construct the weapon (in terms of capabilities, modularity and complexity), whether it wants to use outside suppliers or if it wants to build its weapon in-house. Also, the platform owner has to weigh complexity, durability and strength, against price and ease of use.

In short, to understand the nature of the fight among competing platform owners, one has to understand the nature of the hardware's technology as well as the triad of hardware owners, software developers and consumers. I will move away from the war analogy for a bit and take a step back to look at the platforming strategy as it is deployed in other industry sectors. The next section introduces some additional concepts drawn from business and management studies to theorize the platforming strategy, particularly the roles of the different actors in the Triple-A market segment. This allows me to better position the Triple-A's operationalization of the platforming strategy and further the argument of the controlled and highly regulated nature of the production and distribution of blockbuster games.

153 To be precise, Benjamin and Wigan (1995) seem to refer to rather generic devices such as cable companies' set-up boxes, laptops or PCs. The next-gen console however has integrated many of the services discussed by Benjamin and Wigan and clearly functions as a dedicated entertainment hub (and commercial platform).

6.3 A platform market

The platforming strategy is gaining popularity among diverse market sectors such as issuers of credit cards, dating websites, and shopping malls (Eisenmann et al, 2006). Moreover, it is a guiding business strategy among a set of transglobal companies at the core of the information economy. One might ask: What do Apple, Google, Microsoft, and Intel have in common? Apart from being leaders in their market segments (i.e. portable MP3 players, search engines, operating software, and semiconductor chips), they all successfully operate, or strategically leverage, an integrated strategy of platforming and constant innovation. Or, in the words of management studies scholars Gawer and Cusumano (2002), these firms have attained “platform leadership”. A platform, following their definition, is an “evolving system made of interdependent pieces that each can be innovated upon” (2002: 2). A platform has a set of unique technical standards and to reach the elusive goal of becoming a platform leader, a firm has to have their platform become the ubiquitous standard.

Theoretically, a platform can either be a physical (hardware) platform, as Intel's chips, a software framework such as Microsoft Windows, or a combination of both, for example Apple's iDevices. In practice, more so than the hardware, it is the software platform, which is the “invisible engine” powering platforms (Evans et al., 2006). From a political economic perspective, the goal of gaining platform leadership is somewhat problematic as it not so much justifies the concentration of industrial ownership, but goes a step further, and fleshes out strategies which actively develop and promote the monopolization of a distribution channel.

Gawer and Cusumano (2002) distinguish four “levers” of how to attain platform leadership; the scope of the firm, product technology, relationships with external complementors, and internal organization. Of particular interest to the console segment's platforming strategy and the nature of the Triple-A commodity are issues central to chapters 3, 4 and 5; the characteristics of the product technology—in this book that would be the unfinished commodity—and the relationships among industrial actors. I will first discuss how intra-industry relationships and the operationalization of power relate to the platforming strategy.

One of the core economic principles underlying the platforming strategy, as observed by Rochet and Tirole (2003), is that it supports a so called “multi-sided market” in which “value is created by bringing together on the same platform multiple distinct groups of customers

who need each other in some way” (Evans et al., 2006: 3).¹⁵⁴ Note that customers, in this economic definition of the platform market, are different from consumers (an end-user, or gamer); “customers”, then, can be industrial actors, such as game publishers, as well as consumers. Building on the two-sided market theory, economists Thomas Eisenmann et al. (2009) identify four distinct roles of actors; gamers (or end-users) are commonly called “demand-side platform users”, while game publishers offering complementors (games) are “supply-side platform users”. In the console segment, the game hardware owners Microsoft and Sony have a double role of “platform providers, who serve as users’ primary point of contact with the platform” as well as “platform sponsors, who exercise property rights and are responsible for determining who may participate in a platform-mediated network and for developing its technology” (Eisenmann et al., 2009: 131-132).¹⁵⁵ It is through the control of a console's integrated software platform (its operating system or kernel, cf. Evans et al., 2006) that a platform owner is able to regulate access to, and usage of, a machine.

To return to the analogy of a console war, traditionally, the act of war, in an abstract sense, is highly regulated: from the hierarchies of armies to the many treaties and conventions, which stipulate what soldiers, can, and cannot do. Similarly, the use of console hardware is highly regulated as well. Its exact design and capabilities are closely guarded secrets and only revealed on a need-to-know basis, while the technological roadmap, i.e. the future orientation of a platform, is the kind of information restricted to outsiders. Most of all, the use of a hardware platform is highly constrained and dictated by a mix of technological 'counter-measures' and a wide range of legal barriers which together aim to prevent the unauthorized distribution of complementary technologies (games and peripherals) as well as 'unintended' usage, and access to unapproved outsiders. These constraints reflect the, one might say higher, that is strategic level or warfare, and beg a set of questions which go beyond the technicalities of hardware design.

The platforming strategy gives way to various business models and is far from uniformly deployed. Hardware and software platforms can either be open or closed, proprietary or non-proprietary, and give way to different markets, either two-sided or multi-sided (Eisenmann, 2008). Users, demand-side or supply-side, fulfill different roles in these markets. Proprietary platform owners can decide who to open their platforms to, and under

154 An example of a multi-sided market would be the Windows operating system which interfaces among three parties; end-users, software companies (e.g. Adobe or McAfee), and hardware makers (e.g. Dell or HP). The Windows OS ties together these “distinct groups of customers” who need each other to be able to leverage a platform's potential.

155 An industry sector where the roles of platform provider and platform sponsor are separated would be so called “shared platforms” as Linux or the DVD (Eisenmann et al., 2009: 136).

what conditions. A proprietary platforming strategy does not mean that the interfaces to the platform (often referred to as Application Programming Interfaces or APIs) are necessarily closed-off. On the open end of the spectrum there are the PC, the Mac and the many platforms hosted by Google (e.g. Google Maps, Google Calendar, Youtube and Picasa) that are open to third parties to make money on or customize to fit one's needs (cf. Jarvis, 2009). Conversely, the proprietary platform strategy underlying the next-gen console is closed-off and sets relatively tough restrictions on both demand-side and supply-side users.

Apart from a console's integrated hardware and software design, one of the defining characteristics of a game platform's architecture, is the console platform's proprietary status. The degree of the game console's closeness has a different meaning for the two different actors on each side of the platform market. Next, I will look at how open the console as a proprietary platform is to consumers and game publishers by comparing the PC against the next-gen console. The regulated nature of the platform gives platform owners a high degree of control over the Triple-A's commodity form and the implementation of formatting strategies as the platform holder, in the end, regulates the console's associated business model of flow publishing.

The dedicated console versus the PC

Apart from looking at platforming from a purely economic perspective, another way to map the differences among hardware platforms, software platforms and applications would be to break these three elements down into different institutional components. Hardware platforms make up the physical layer together with transportation networks, the logical layer comprises transmission protocols and software platforms, whereas the content layer represents the level of software (Benkler, 2006: 389-459). Each layer can either be enclosed, corresponding with the industrial model of cultural production relying on proprietary control mechanisms, or giving way to open, non-market, non-proprietary, commons-based networks of production, distribution and usage. Next, I will discuss the openness of the physical, logical and content layer as they pertain to the PC.¹⁵⁶

At the physical/device layer, the most open computational hardware platform, to gamers and application developers as well as to platforms providers and platform sponsors, would be the PC. As Benkler (2006: 408) argues, "PCs provide an open-platform device" and "are built on open architecture, using highly standardized commodity components and open

156 I am primarily drawing observations and sources concerning the U.S. legal system.

interfaces in an enormously competitive market”. The most open configuration, to all four actors, would be to combine the PCs open hardware with a non-proprietary software platform, i.e. an open-source operating system such as a Linux distribution. The PCs logical layer is open to application developers, as they do not need permission from platform providers or sponsors to develop software. Nor do developers need special development kits (proprietary development hardware and software) to be able to develop applications for PCs.

In theory anyone with a networked PC is able to produce content in a non-proprietary environment, thereby having limited technological and legal limitations as to what kind of information to consume, produce or share. Because the PC is made out of non-proprietary, standardized hardware components, an end-user can take over the role as platform provider. Companies such as Dell, HP or Compaq are also platform providers of non-proprietary PC hardware; their hardware is open in a legal sense and does not exclude non-proprietary software use. In the end, and this is a crucial distinction as we compare PCs with next-gen consoles, at the hardware level (the physical/device layer), PCs are neither technologically, nor legally restricted for third-party application developers to develop and distribute software.

The multi-modality of the networked PC as an entertainment medium, as a means of production and as a distribution tool, rules out a singular and pre-determined use. Because of its versatile character, one cannot only play, develop or share games, but one can write a novel as well, edit a movie or hack the Pentagon, all using the same keyboard and mouse. Legal scholar Jonathan Zittrain (2008: 70) calls the combination of (legal) openness and the ability to go beyond a system's intended use “generativity”, that is: “the capacity to produce unanticipated change through unfiltered contributions from broad and varied audiences”. The birth of the medium of digital games can be seen as a result of the generative nature of the PDP-1 (Programmed Data Processor-1) computer in the basement of the Massachusetts Institute of Technology, which allowed for the development of *Spacewar!* (1962).

The PCs generativity, as Zittrain argues, is as much a strength, as it can be a weakness. The platform's strength in general should be self-evident, as we cannot imagine what life would be like without the 'mission-critical hardware' that underlies the Internet. Conversely, in the most general sense the PC is open to all, which means that the stability of the platform is a combination of the actions of users, application developers, platform providers and sponsors. Zittrain (2008: 40) calls this the “generative trade-off”: “computer architectures are geared towards flexibility, rather than security”. The generative trade-off, he adds, affects all generative platforms, both PCs hosting a non-proprietary software platform, and those running a proprietary operating system, such as Windows. Because the platform, and more importantly its associated distribution channel, is open to all, anyone with nefarious intentions

is able to distribute a worm, virus or any other kind of malicious software (cf. Clarke & Knake, 2010).

As we have seen in the brief history of the rise of the dedicated console, platform owners—from Atari to Microsoft—operate a non-generative platform strategy, which is diametrically opposed to the PCs model. The console is closed at the physical/device layer, logical/software layer and the content layer. At the device layer, console hardware is first of all stable and standardized to ensure full compatibility with TV sets, hardware peripherals, and media formats throughout a console's lifecycle. A console should be plug-and-play, providing an accessible and consistent experience to all players. While PC players might have to download patches from external websites to fix a software bug, next-gen consoles automatically push updates and instantly apply them, if necessary.

Second, the console is specifically designed to play games. That said, over the last decade the hardware and software design of consoles and PCs came to more closely resemble each other. An example of the overlap in hardware architecture between a PC and console would be the Playstation 3's ability to install an open source operating system. Up until April 2010, Playstation 3 owners could run an “other OS”. The non-generative nature of the Playstation 3 and the high level of control at the logical/software layer was affirmed by Sony's explanation as to why the company decided to issue a software patch (altering the platform's underlying firmware) to prevent the “other OS” capability: “(...) due to security concerns, Sony Computer Entertainment will remove the functionality through the 3.21 system software update” (Seybold, 2010). The integrity of the platform is one of the main concerns of platform owners. As for the generative trade-off, console owners will always choose security over flexibility as the decision by Sony in the “other OS” case demonstrates so well. Particularly the ability to modify either a console's firmware, or to alter its hardware to circumvent copyright protection schemes in order to prevent the use of “pirated” games, has always been a deep concern of platform owners and game publishers.

The same disruptive forces that brought (parts of the) music industry to its knees, are also a vice to the game industry. The unlawful distribution of games is, for example, rampant for the Nintendo DS, the Playstation Portable and the PC. The risk of users running unauthorized code extends beyond the many ways in which users try to circumvent copyright protection. Given the next-gen console's many multiplayer options, more recently, the ability to run unauthorized code also allows to install cheats. This allows players to gain an unfair advantage over others (cf. Consalvo, 2007), for example the ability to see through walls in a first-person shooter, something that, as history of certain PC franchises has shown, would be potentially devastating for software and, in the end hardware sales (cf. Nieborg, 2005b). Legal

scholars in particular have been at the forefront of recognizing the implications of closed-off, proprietary platforms. I will end this chapter by looking at the legal, technological and economic instruments, practices and policies platform owners deploy to be able to fully control console hardware and how this affects the Triple-A commodity form.

Platform lockdown & perfect enforcement

By regulating every bit of content that is available on any of the next-gen consoles, platform holders are able to control their platform in ways that are unthinkable compared to similar hardware platforms (e.g. the PC, the Mac and TVs). Particularly the next-gen platform's networked capabilities allow for levels of control over hardware usage and hardware integrity, as well as content, far greater than previous hardware generations. While it is true that one can access the Internet on next-gen platforms as the Wii and the Playstation 3, for example to search for a way to circumvent copy protection on these same platforms, its use as an entertainment device is governed by the respective platform owners. The affordances which characterize the networked information economy, the ability of peers to develop and share non-proprietary digital content at low production and distribution costs, is nullified by the game industry's ability to deny any access to its powerful machines. It is as if a HP printer will only print if it uses a stack of certified, and proprietary, HP paper.

Dedicated consoles, then, are best understood, as Zittrain (2008: 106-7) argues, as “tethered appliances”: “They are appliances in that they are easy to use, while not easy to tinker with. They are tethered because it is easy for their vendors to change them from afar, long after the devices have left warehouses and showrooms”. Zittrain points to the contingent nature of tethered appliances: even though a gamer pays for a game to have a physical copy of the disc, its content is licensed or rented as platform owners are able to control its use from a distance. Selling consoles as proprietary platforms allows hardware manufactures Nintendo, Microsoft and Sony to fully control their capital-intensive investments in these platforms. This is done via two complementary and overlapping mechanisms of control: through the platform's technology, for example making software incompatible with hardware, and via a broad set of legal protection schemes. This ability of platform owner's to control the use of a device called Zittrain (2008: 107-126) “perfect enforcement”, which breaks down into three strategies: preemption, specific injunction, and surveillance. Let me elaborate on these three strategies.

Console owners have a broad set of arrangements, business strategies and technological measures to ensure that games are not only platform dependent, but that only

those games deemed fit by platform owners hit the shelves and are played.¹⁵⁷ “Preemption”, Zittrain (2008: 108) notes: “entails anticipating and designing against undesirable conduct before it happens”. More so than controlling content along the way, platform owners aim to deter and preclude non-anticipated game publishing. As we have seen in the previous chapters and in this chapter on Nintendo's high level of third-party control, the razor-blade model gives a platform owner the technological, financial and legal means to regulate which games are published on its platform. Prospective gamedevelopers and publishers have to buy ‘dev-kits’ to be able to develop games for proprietary hardware platforms: “In contrast to IBM-compatible PCs, video-games consoles are not open systems, i.e. firms are forbidden from developing or publishing software for a given platform unless the firm is formally licensed to do so by the owner of the hardware rights” (Alvisi et al., 2003: 612). These kits come at a price, or a “license fee”: “Development tools include development environments emulating the upcoming console’s capabilities (usually a modified console plus a PC), APIs, documentation, demos that can be used as prototypes, and more” (Evans et al., 2006: 145). The complementary documentation is copyrighted and full of trademarks, preventing widespread distribution beyond game developers.

Traditionally, platform owners used proprietary media formats to add another layer of control as well as a technological means to tie a game to its platform. Think of cartridges containing a lock-chip or the Playstation Portable's UMD format. Over the decades, game publishers sought ways to bypass or circumvent the platform owner's strict control in order to publish games without a platform owner's permission, or develop technology to make console games compatible with rival platforms. As legal Counsel Jon Festinger notes (2005: 20-28), from the early 1990's onwards, platform owners fought a series of legal battles (in the U.S.) with game publishers to prevent them from reverse engineering its lock-out mechanisms citing copyright infringement of its protection software (Nintendo vs. Atari and Tengen), and trademark infringement (Sega vs. Accolade). In 1996, the Digital Millennium Copyright Act (DMCA) was passed, which under section 1201(a)(1)(A) reads: “No person shall circumvent a technological measure that effectively controls access to a work protected under this title”.¹⁵⁸

157 One of the most common and straightforward lock-out mechanisms on the Xbox 360 are region codes. Not all games published on Microsoft's platform are region free as there are three geographical software regions; NTSC-U/C for North-America, NTSC-J for Japan, Asia and Korea and PAL for Europe and Australia.

158 Adding: 1201(a)(3)(A): “to “circumvent a technological measure” means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner” 1201(a)(3)(B): “a technological measure “effectively controls access to a work” if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.” Source: <http://static.chillingeffects.org/1201.shtml>

This provision gives platform owners considerable more (legal) power to ensure hardware/software compatibility and exclusivity by making it illegal to reverse engineer or hack copyright protection schemes.

The second means of how an appliance is tethered to a platform owner is through “specific injunction”, or the ability of a platform owner to communicate with a device after the distribution of the hardware or software. The previously discussed case of Sony's decision to push a software patch removing a, for some users, vital function, for example to install a Linux distribution, would be an example of specific injunction.¹⁵⁹ This level of control rests partly on a set of technological implementations, rather than legal means. As I will discuss in the next chapter on perpetual innovation, console software platforms are constantly patched, as are games. This allows platform holders, but also game publishers to directly control the contents of their games. With the advent of user created content, the ability to remotely change ingame material has become a legal necessity, as in the case of, for example, *Little Big Planet*.¹⁶⁰ Apart from adding content, as in the case of branched serialization, via the extensive patching capabilities of the next-gen platforms, games can be significantly altered after distribution, up to a point where game mechanics are fundamentally altered.¹⁶¹

The third mechanism of control afforded by tethered appliances is surveillance: the device's ability to relay back information about how a platform is used. Platform owners are able to monitor a wide range of user activities, from ingame progress, to gameplay decisions, and from hardware modifications to the use of peripherals. Sal Humphreys (2005: 200) points to Massive Multiplayer Online games, where the level of control is many times more invasive compared to consoles: “The publisher has access to a vast array of information about each player—able to monitor every keystroke and access financial information through credit card dealings—so that the possibilities for surveillance and profiling are greatly intensified”. For the

159 Not installing the patch prevents the: “Ability to sign in to PlayStation Network and use network features that require signing in to PlayStation Network, such as online features of PS3 games and chat. Playback of PS3 software titles or Blu-ray Disc videos that require PS3 system software version 3.21 or later. Playback of copyright-protected videos that are stored on a media server (when DTCP-IP is enabled under Settings). Use of new features and improvements that are available on PS3 system software 3.21 or later” (Seybold, 2010).

160 The game consists primarily of user created player levels, which oftentimes contain copyright and trademark infringements. Under the Digital Millennium Copyright Act, Sony, as both the platform holder and the game's publisher, is obliged to take down material that infringes on copyrighted intellectual property (cf. Meunier, 2008). See also: Nieborg, 2008a.

161 Months after its launch, the karaoke game *Lips* (2008), for example, got a thorough title update (via a digitally distributed patch), changing the user interface, adding features, and modifying the game's core game mechanics. “Lips update and Power Pack DLC”. 2010. Available: <http://forum.teamxbox.com/showthread.php?t=612916>.

next-gen console's, a player's persistent identity is an obvious surveillance tool.¹⁶²

The perfect enforcement via preemption, specific injunction, and surveillance, allows platform owners to regulate a platform as they see fit and offers levels of control that were unheard of, or simply impossible, in the era of pre-networked devices. Underlying the cultural game industry's proprietary platforming strategy is a combination of effective technological protection schemes, backed-up by a restrictive legal umbrella (the DMCA). This powerful combination "gives rights holders the exclusive right to control any computer-mediated use of their works, and captures in its regulatory scope all uses that were excluded from control in prior media" (Benkler, 2006: 440). Lessig (2008: 99) affirms this view and notes that the control granted to a platform owner is "radically greater" than in the "analog world". Particularly in the case of digitally distributed content, most notably the formatting strategy of branched serialization, users have, almost overnight, given away much of their power. Downloadable content can be disabled from a distance, it is tied to one user account and cannot be lent to a friend, nor can it be sold on the secondhand market.

The two-sided market model is getting more integrated and selling content via tethered appliances is, from the perspective of market actors, safer and cheaper. Yet, the neoclassical economic approaches implicitly advising managers how to gain competitive advantages by shifting attention towards the "virtual value chain", comes with a certain taken-for-grantedness of the implications of the shifting power relations among its actors. For one, the console as a "market choice box" is operated by a very small number of conglomerates, and those parties offering goods and services for the boxes signal the ongoing trend of concentration of industrial ownership. Also, consoles, as standardized hardware platforms, have a particular set of techno-economic specificities, which control and severely limit the interactions among industrial actors.

The proprietary platforming strategy not only affects usage, but production as well. Compare this to the PCs non-proprietary character. With the ubiquitous access to networked computers, the means for cultural production are widely available. The PC has a vital role in the networked information economy and has become "the basic physical capital necessary" to communicate and to develop and circulate human meaning (Benkler, 2006: 32). In theory, everyone can develop a stand-alone proprietary or non-proprietary online multiplayer first-

162 For the Xbox 360, the "gamercard" includes information about a player's recently played games, gamerscore (points gathered via playing), reputation, "gamertag" (a player's nickname) and an avatar (a player's self-designed virtual character). While players always can opt-out by unplugging their machines, the gamercard is fully integrated into the software platform's interface and Xbox 360 games and to be able to play online, a player has to have a gamercard. Befriended players are able to see when someone was last online and how far someone progressed in a game. See also: Nieborg (2008b).

person shooter PC-game and publish it via a website or peer-to-peer network. Compared to the proprietary and closed systems of handhelds and consoles, the PC is an open game platform with common standards using non-proprietary technology (Kerr, 2006). The almost ubiquitous access to hardware such as the PC, to desktop publishing software, and coupled with high-speed Internet connections, enables consumers and producers to share the same tools of the trade.

Conversely, in the long run, the implications of the proprietary platforming hamper innovation: “The generative spirit allows for all sorts of software to be built, and all sorts of content to be exchanged, without anticipating what markets want—or what level of harm can arise” (Zittrain, 2008: 126). Apart from the implications of a highly regulated techno-legal system, there is an institutional/economic dimension to the nature of tethered appliances. While similar devices, such as Apple's iPhone, iPod, and iPad at least allow for non-market production, the next-gen game console promotes scarcity over abundance, and sports a regulated, and unified, but above all standardized commodity form. The role of proprietary hardware platforms leads to questions related to perpetual innovation and formatting strategies and in the end to the implications of the commodification of ludic formations. To what extent does perpetually upgraded technology enables certain business practices and forecloses others? This will be the topic of the next chapter, which will offer an introduction into the field of innovation studies and how insights from this field and that of media economics can be contextualized drawing on political economy. I will argue that the economics of proprietary platforming not only led to more control because of a specific techno-legal regulatory framework, but also because of the fully institutionalized drive towards constant hardware and software innovation which is as much championed by industrial actors in the game value chain as by consumers and critics.

Chapter 7 - Perpetual innovation

The process of innovation is central to the project of capitalism (Marx and Engels, [1848]2002). Our Western, capitalist economy in its relentless drive towards continuous growth, is in a constant state of evolution as a result of the development of 1) physical technology (e.g. the printing press), 2) social technology (e.g. copyright law), and 3) business design (e.g. a company's organizational culture). Accepting this observation means accepting the notion that the economy is, following evolutionary theory, a “complex adaptive system” (Beinhocker, 2006). A large number of management scholars and economists, similar to Beinhocker, draw on evolutionary theory to theorize the process of innovation (e.g. Christensen, 2006; Anderson & Tushman, 1990). Innovation, then, is an internal, or endogenous, part of the capitalist economic system. Through a mix of capital investment, risk taking, serendipity and skill, entrepreneurs are able to leverage both physical and social technologies up to a point where an innovation is able to reach mass acceptance.

In addition, by creating a business design which heavily invests in knowledge and when fueled by the right social technologies, game publishers are able to capitalize on a continuous feedback loop of knowledge and technology. Examples of innovative technologies at the core of the game industry are, for example, computer chips and software engines. In the most general terms, just as capitalism itself, the game industry's techno-economic logic of perpetually updated hardware and software is inherently forward looking. Moreover, the fact that industrial actors in Triple-A value chain all are fully grounded in the principles of shareholder capitalism means that stagnation, a lack of expansion or other indicators of slowing shareholder value, equals a merger, acquisition, hostile take-over or fiscal death.¹⁶³

Progress, innovation and growth are not beholden to the cultural industries. However, it is a widely accepted view that because of the information economy's networked nature, transaction costs have been lowered dramatically and the ease with which knowledge and information can be shared anything but intensifies the level of innovation. As Jeremy Rifkin (2000: 20) remarks: “Sped-up innovation and product turnover dictate the terms of the new

163 Morris et al. (2008) contend that both in the U.S. and Japan the dominant organizational governance regime is increasingly shareholder oriented, instead of the traditional Japanese modus of 'managerial' capitalism. This has its effects on a managerial level, but as management scholar Roger Martin (2010) argues, the focus on maximizing shareholder value also leads to less profit in the long term. The quarterly investor calls by Activision Blizzard executives in particular are indicative of the managerial focus on growing “shareholder value” and thus of shareholder capitalism as the dominant principle to organize capital.

network economy. The process is demanding and relentless". Again, it becomes clear that the dominant industrial actors spearheading the Triple-A segment are firmly rooted in the capital driven, wholly proprietary industrial domain, at the same time incorporating and profiting from the technologic, economic and socio-cultural trends and practices of those associated with the networked information economy (cf. Benkler, 2006).

One of the defining characteristics of new media, apart from its networked, convergent and digital nature is constant technological innovation (Flew, 2008). The market sector developing and distributing game technology is "even more prone to the introduction of new gadgets than is consumer electronics equipment in the music and film industries" (Hesmondhalgh, 2002: 210). Over the decades, the cultural game industry has adopted a powerful mantra: technological stagnation equals regression. Typical gamer discourse and the default game industry mentality are best described as anticipatory: There is always something better just over the horizon. Or, in the words of Brookey (2010: 110): "[The game industry] is an industry that focuses as much on the future as on the present". The question is never whether or not to innovate, but how much to invest in new technology, when to release it and under what circumstances?

This chapter will reflect on contemporary practices of Triple-A game production, distribution and consumption from the, at first glance, techno-economic innateness of digital games and proprietary platforms, that is, the continuous renewal of game hardware and software. Microprocessing technology, making up central processing units (CPUs), and their complementary graphics processing units (GPUs), become obsolete in months, rather than years. Moore's famous Law, which predicts a doubling of the processing power of CPU's every two years, has its effects on the computing power of consoles as well (Conley et al, 2004). The storage growing size of RAM (random-access memory) follows a similar path, as does the exponentially growing amount of data stored on increasingly smaller hard drives. Next to hardware, critical software running on top of proprietary hardware platforms or programs needed to develop or consume games have an even more rapid rate of development and are constantly updated, sometimes on a daily basis. Think of development tools, operating systems, and device drivers. Taken together, these innovations fuel and structure the logic of flow publishing which is built on the premise that there not only will always be a sequel, but that every sequel is, in some way or another, more technologically advanced than its predecessor(s). Constant discovery, reconfiguration and expandability is not only defining the next-gen Triple-A game as an artifact and its mode of participation (cf. Raessens, 2005), it is also becoming ingrained into its political economy.

Innovation in the Triple-A segment is fully institutionally embedded in the (practices

of) industrial actors constituting the game value chain; it has its own temporal logic and goes beyond merely updated technology. In the remainder of this chapter I will primarily focus on hardware related innovation, which, I will argue, is predominantly a top-down, industry driven process. More so than the development of next-gen Triple-A games, proprietary platform related research and development is driven by multi-million dollar companies, such as suppliers of console hardware (e.g. IBM, Intel, Samsung, AMD), manufacturers (e.g. Flextronics and Foxconn) and platform owners (Microsoft, Sony and Nintendo). Compared to hardware innovations, console software development is slightly less of a top-down process as consumers are able to extend the core game software via (very small) contributions, yet only in select games and under very strict regulatory oversight. Overall, the primary sources of hardware related innovation in the next-gen Triple-A segment are not consumers, but for-profit enterprises.

The continuous focus on innovation in the Triple-A segment touches all actors who are part of the game value chain, as such affecting the ways in which games are produced, distributed, sold and played. In this chapter I will seek an answer to Robin Mansell's (2004: 102-103) previously posed question: "How is technological innovation in the new media field being structured; by whom and for whom is it being negotiated?" This question breaks down into a set of three overlapping sub-questions. First, how, in terms of its pace are the processes of hardware innovation and software innovation different, and to what extent do these processes affect each other? As we will see in this chapter, innovation in the Triple-A segment has its own temporal logic. The interaction between the cyclical diffusion of game hardware (next-gen consoles) and constantly upgraded software (the numerous installments in the *Call of Duty* franchise) is indicative of what I call the Triple-A segment's 'double dynamic of innovation'. The double dynamic of console hardware and game software innovation shows that both innovation processes are fully intertwined, but at the same time they have a different tempo of evolution.

Second, extending the core argument of this book's critical and holistic outlook, there is the question of power. The issue of innovation inevitably leads towards acknowledging the concentration of industrial ownership in the Triple-A segment. Mansell's question is directly related to the issue of power and access, which is reflected in the dominating presence of a small number of industrial incumbents in the Triple-A segment, the segment's high barriers to entry, and the capital intensive, industrialized nature of Triple-A development and distribution. On the hardware side, the development of consoles is driven by a very select club of platform owners and associated suppliers; its development is capital intensive, cyclical and fully industry-led. Software innovation, on the other hand, is publisher driven, faster paced and,

arguably, consumers are able to, mostly indirectly, influence the pace and nature of software innovations (cf. Von Hippel, 2005; Jeppesen, 2004; Prügl & Schreier, 2004).

The third issue relates the process of innovation to the Triple-A commodity's form by discussing how the next-gen Triple-A game's formatting strategies of franchising and branched serialization are mutually constituted by incrementally updated hardware platforms. The next chapter will explore this issue more in-depth. Although neither a single economic, technological, judicial, political or socio-cultural factor determines media use, innovative business strategies—such as the logic of flow publishing—are driven by hardware and software innovations and undeniably affect consumption practices.

As the *Dragon Age* and *Call of Duty* franchises so vividly demonstrate, the double dynamic of innovation affords and constrains the unfinished nature of the Triple-A commodity. The next-gen cycle introduced, among many other innovations, easily accessible online gameplay. This innovation allows for, especially in the case of the *Call of Duty* games, a high amount of replayability, lessening the need for a new installment in the series. At the same time, the next-gen hardware's connectivity also afforded platform owners and publishers a new revenue stream, i.e. the exploitation of paid-for downloadable content. As these Triple-A games demonstrate so well, it is not technological innovation by itself, nor economics (i.e. process innovations such as digital distribution) for that matter, that individually determine the Triple-A's commodity form. It must be stressed that software and hardware innovations, their pace, and their origins, are the result of a complex and mutually constituted power play among industrial actors (i.e. suppliers, manufacturers and users of innovations), consumers, and other influencers (i.e. game journalists, business analysts, and politicians).

The logic of continuous innovation and proprietary platforming converge, as argued in the previous chapter, gives way to a two-sided market and is highly influential in terms of the distribution of power among platform owners, publishers, retailers, and gamers:

In perpetual innovation capitalism, the strength of corporations depends on their knowledge resources—research teams, accumulated know-how, data collections, and so on—and on their ability to legally protect innovations from competitors and consumers by means of patents, copyrights, and trademarks (Kline et al, 2003:67).

The Triple-A's techno-economic logic not only encompasses the proprietary nature of hardware platforms, it also signals the constant renewal of both the platform and its “complementors” (i.e. Triple-A games). The pace of innovation of a hardware platform is not only a crucial piece of technology structuring the commodity's form, it also gives way to a specific set of institutional practices. In the latter part of this chapter, I will draw on media

economics and political economy to discuss the implications of the economics of the double innovation dynamic: the proprietary platform strategy encompassing the dynamic of constant hardware and software innovation. The process of perpetual innovation, then, is the second key element of the Triple-A segment's techno-economic logic and is directly related to the cultural game industry's platforming strategy.

7.1 Innovation studies 101

Inspired by evolutionary biology and the research on fruit flies, management studies scholar Charles Fine (1998) speaks of industry sectors having different “clockspeeds”. Compared to non-entertainment industries, such as the automobile or aircraft industries, the cultural game industry in general is a decidedly fast, if not a hyper-fast clockspeed industry. Even before the moment a new generation of gaming hardware hits the shelves, engineers are looking for ways to miniaturize or combine components and bring down the costs of a console. Asked what the “planning cycle” is for the next round of consoles, in the case of Microsoft that would be the successor to the Xbox 360, Microsoft division head Robbie Bach answered:

We start thinking about the next generation before we shipped the Xbox 360. It doesn't start with a date. It starts way upstream with silicon development. From that comes a series of data points. You start making early technology choices. It's an evolving thing. Stuff doesn't become concrete until you get inside a window of when you have to ship, more than 18 months or so out (Takahashi, 2008).

Compared to other durable consumer goods like TVs and stereos, gaming hardware has, in terms of its durability, a product life cycle that might be as long as similar electronic goods. Yet, console hardware seems to be built to age and the perceived product life is heavily truncated. Once in use, the lifespan of gaming hardware seems to be a couple of years at best, while a television set may outlast several consoles iterations during its lifecycle. On top of that, the next-gen clockspeed of hardware innovation is higher than ever, with more, and different hardware versions (or SKUs, Stock-Keeping Units) and a barrage of system software updates during the cycle.

The double dynamic of innovation stands for a business regime which is specific to the Triple-A market segment; signaling a culture of incrementally upgraded hardware and being delineated by clearly defined hardware generations, or cycles. Hardware platforms set the pace of innovation and provide a relatively stable and standardized basis for game developers to build upon. The development of game software following the hardware's cycle is more fluid and in a constant state of flux. In an industry sector that is defined by upheaval, complexity and large investments in research and development, dedicated game consoles provide a standardized platform, allowing publishers to plan ahead, to lay out technological roadmaps, adjust their business models and allocate their investment opportunities accordingly.

Because the ability to manage innovations is one of the major elements of a firm's

competitive advantage, a rather large number of scholars in the fields of neoclassical economics, management studies, and obviously, innovation studies have dealt with fundamental questions such as what qualifies as an innovation, the different types of innovation, and the sources of innovation. Before discussing the political economic implications of the process of perpetual innovation of next-gen hardware and Triple-A software, I will provide a brief overview of these perspectives to better position the nature of game related innovations.

The Organization for Economic Co-operation and Development (OECD) has a set of useful definitions to distinguish among four types of innovations; product, process, marketing and organizational. The most obvious type of innovation, when discussing game hardware and software, would be product innovations, which is defined as “the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics” (OECD, 2005: 48). A game hardware related innovation would be the introduction of a new media format, such as the Playstation 3's Blu-ray format (cf. Brookey, 2010). A dual layer Blu-ray disc can store 50 GB of data, compared to a dual layer DVD that can carry 8.5 GB. Contrary to the OECD, some authors, such as renowned innovation studies scholar Eric Von Hippel (1998), distinguish between product (goods) and service innovations. A game related service innovation would be the subscription portion of the Xbox 360's Xbox Live service, offering gamers, among many other features, voice and video chat capabilities and multiplayer gaming. Because in practice innovations related to goods and services overlap, or are fully intertwined, I will follow the OECD's broader definition of product innovation including both goods and services.

Xbox Live also qualifies as a “process innovation”: that is “the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software” (OECD, 2005: 49). The Xbox Live service is a prerequisite for the successful exploitation of the Triple-A game as an unfinished commodity and couples complementary game content that is fully integrated into the core (disc-based) game with digital distribution as an improved delivery method via a universal point based payment system. Moreover, the logic of flow publishing is fully integrated into the Xbox 360's design and signals a significant improvement for games publishers compared to previous hardware generations which did not allow for the exploitation of the core artifact beyond its release.

On top of that, the advent of digital distribution led to a significant organizational

innovation, i.e. “the implementation of a new organisational method in the firm’s business practices, workplace organisation or external relations” (OECD, 2005: 51). As we have seen in chapter 5, the truncation of the game value chain grants platform owners direct control over their sales channel, significantly altering the relationships with both consumers and retailers. While the next-gen cycle featured several marketing innovations, many of which are related to the rise of social networking technologies, these are less relevant to the discussion at hand as they are less prominent in altering the Triple-A segment's political economy.¹⁶⁴ That is not to say that there are no game related marketing innovations to speak of.¹⁶⁵ The logic of flow publishing allows publishers to engage in a continuous relationship with their customers, in turn demanding longer marketing campaigns, but also allowing publishers to invest in brands (e.g. the *Call of Duty* or *Guitar Hero* franchises) rather than individual installments.

For many, an innovation equals a novel product or process. However, it lies in the eyes of the beholder to judge the extent to which a technology is truly a break with the past. Everett Rogers (2003: 12), a leading scholar in the field of innovation studies, reflects this ambiguity by his somewhat broad definition of an innovation, being “an idea, practice, or object that is perceived as new by an individual or other unit of adoption”. To qualify as an innovation, an idea, practice or object does not actually have to be new. Through historical ignorance or clever marketing something can be perceived innovative (cf. Slade, 2006). Particularly among scholars of the neo-classical bend it is a subject of much debate whether or not an innovation can be counted as a breakthrough innovation, an incremental, sustaining or a radical one. The premise of these questions all remain the same as they seek ways to leverage a firm's competitive advantages through innovation, as such affirming a profit driven, noncritical, perspective. Questions pertaining to access and power as well as those related to the effects on industrial concentration or related to diversity in hardware and software design, are rarely discussed in innovation studies. That said, there are useful insights to be taken away from the neo-classical perspective on the nature and pace of innovations.

Stressing the technological continuities underlying many innovations is the notion of a “sustained innovation”, which might offer radical improvements over existing technology. A sustained innovation is also indicative of sustaining the projected path of improved product performance (Christensen, 2006). Think of the increased clockspeed of a CPU. In fact, the

164 “A marketing innovation is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing” (OECD, 2005: 49).

165 On the contrary, based on my experiences as a game journalist I would argue that the game industry could be seen as a forerunner in the way it has implemented social media technologies and new (hardware and software) platforms. For example, Triple-A games with Facebook and Twitter integration allow gamers to post scores, indirectly acting as marketing propositions for said brands. Or publishers offering apps for iDevices (e.g. EA's Gamerelease app which offer consumers information on upcoming releases).

majority of innovations are sustained innovations, which either improve the capabilities and performance of existing technologies, or combine existing technologies (cf. “recombinant innovations”, Hargadon, 2003), or both. Also part of this mode of innovation is the strategy to add “incremental changes” to established products.

The most consistent and clearly recognizable product innovations showing strong continuities in terms of their performance trajectory are game consoles. The last decades, the average lifecycle of a game console has been five years, whereas the projected life cycle for the Xbox 360 is five to seven years (Andrews & Baker, 2006). During a cycle no hardware upgrades which directly enhance a console's performance are introduced by platform owners. The nature of hardware innovation in the console segment is best qualified as cyclical, based on incremental innovations. While every hardware generation, in terms of its underlying technology, is undeniably new and offers a leap forward, the technological progress of a platform's core technology (CPU's, GPU's, RAM, and hard drive) follows a rather linear path.¹⁶⁶ For example, the Playstation 3 and its distinguishing features can be traced back to the introduction of the Playstation (1996), followed by the Playstation 2 (2001). From a purely technological point of view, key incremental product innovations in the Playstation's projected path are: more storage memory (from memory cards to an exchangeable, build in hard-drive), a faster CPU (from 33.9 MHz, to 294 MHz, to 3.2GHz), and a new media format (from CD, to DVD, to Blu-ray), which holds more data. In other words, the next-gen console's ability to display high-definition graphics, its vastly expanded storage capabilities, and its integrated networked options are all indicative of the path of sustaining technologies.

However, this observation only holds true when looking at a console's hardware components and its performance trajectories across consecutive cycles. The moment one powers on a next-gen machine, it becomes clear that the next-gen machines also features more radical innovations. The previously discussed process innovation of the Xbox Live service and the accompanying business logic of flow publishing is a radical departure from previous console cycles. From a purely economic perspective, the next-gen hardware's networked capabilities and its integrated online storefront offer Microsoft and Sony a competitive advantage over consoles from the pre-networked era. That said, even though digital distribution might signal radical change comparing console cycles, compared to other game hardware platforms, such as the PC, online distribution is far from an unprecedented innovation. Why flow publishing, then, qualifies as a radical innovation is the combination of a proprietary platform—hosting an integrated, easy accessible transaction platform—with the

166 Linear, in this sense, on a logarithmic scale illustrating exponential growth.

unfinished commodity form of the Triple-A game.

What sets the next-gen machines apart from previous generations is the exploitation of the modular nature of the console's hardware architecture. Compared to previous cycles, next-gen hardware and its system software has been upgraded much more frequently than during previous cycles. For starters, both Sony and Microsoft decided to launch different hardware versions (SKUs), and they have subsequently upgraded the hardware of these versions during the cycle.¹⁶⁷

Drawing on the affordances a next-gen consoles offers as “tethered appliances” (Zittrain, 2008), platform owners consistently exploited the possibility to remotely alter a console's system software (not to be confused with the machine's firmware).¹⁶⁸ Again, more so than previous hardware generations, the next-gen console's capabilities were considerably extended, by offering free system software upgrades during the cycle. Aaron Greenberg, Xbox 360 director of product management, explains:

The great thing is that we built the heart of the Xbox 360 for continuous innovation. We can always add more features and functionality, and you don't have to buy new hardware to do that. You can do it through software updates. (...) That sort of thing has never existed before in our industry (Ivan, 2010: 13).

For example, the Xbox 360's updated system software added a wide range of additional features such as access to Facebook and Twitter. Late 2008, a full three years after the Xbox 360's launch, a major system software update, dubbed the NXE: New Xbox Experience, offered a complete overhaul of the Xbox 360's “dashboard” by drastically changing the graphical user interface and the core capabilities of the machine. For example, instead of two-dimensional persistent player profiles the NXE added customizable, three-dimensional character called “Avatars” and various additional communication options.¹⁶⁹ As we have seen in the previous

167 On “day one” Microsoft launched the Xbox 360 Premium Edition and the Xbox 360 Core Edition, both versions had different peripherals and the Core model lacked a hard-drive. Later the Core model transformed into the Arcade edition, the Elite model was launched and all these versions were discontinued when during the summer of 2010 the Xbox 360 S was launched. Apart from its price, color and peripherals, it is primarily the storage options (i.e. the presence and size of a hard-drive) that set the various SKUs apart. The same goes for the Playstation 3.

168 Generally, firmware has a much smaller, but still vital role in a console's architecture. While system software and firmware, in popular discourse, tend to overlap, the latter's function is less expansive compared to system software. To add to the confusion, in its corporate communication to end-users, Sony uses the terms “system software”, “operating system” and “firmware” indistinguishably. Firmware, according to the U.S. Department of Commerce's Federal Standard 1037C is defined as: “Software that is embedded in a hardware device that allows reading and executing the software, but does not allow modification, e.g., writing or deleting data by an end-user” See: <http://www.its.bldrdoc.gov/fs-1037/fs-1037c.htm>.

169 See “Xbox 360 system software”. Available: http://en.wikipedia.org/wiki/Xbox_360_System_Software for a full list of changes. Last visited: January 11, 2011. The Playstation 3 was frequently updated as well.

chapter, the updating of system software also allows for the remote control of a next-gen console and the ability to not only add, but also disable certain features, as was the case in the removal of the Playstation 3's "Other OS" function.

The path of sustained innovation allows for the introduction of radical innovations such as multi-core processing, but another question explored by many innovation studies scholars is to what extent an innovation can be truly disruptive. As Rifkin (2000: 21) notes: "Staying ahead of the competition often means competing against oneself". In the next section, I will compare Sony's and Microsoft's institutional history against that of Nintendo and briefly discuss the Wii's disruptive nature as an innovation, illustrating the volatility of the console segment.

A disruptive innovation?

In 2005, Microsoft's Xbox 360 started what was coined by gamers and journalists as the 'next-gen war', heralding "a new era of High Definition gaming" (McHugh, 2005).¹⁷⁰ Sony followed suit with the launch of the Playstation 3, which was meant to determine 'the future of entertainment' by introducing, in the eyes of many, an overly expensive piece of advanced gaming technology. Sony's marketing spokespeople stressed the future outlook of the Playstation 3, a machine that was meant to be ahead of its time in terms of technology. In the most general sense, especially in the eyes of consumers, both machines have much in common. To put it in innovation related terms, both machines are on the same path of improved product performance and are to be expected successors to previous hardware cycles.

Microsoft and Sony exploit the same business models, but, as multi-billion companies with long institutional histories, both firms have different corporate cultures and are able to draw on different "core resources and competencies" (Daidj & Isckia, 2009). The Japanese mogul Sony had a revenue of almost \$80 billion in fiscal year 2010, is vertically integrated and is particularly focused on the development and distribution of consumer electronics.¹⁷¹ Sony's strength lies in the ability to develop and manufacture technology in-house and to set new

170 Microsoft Corporate Vice President J Allard in an interview in Wired Magazine: "But Allard insists that his plan is different, because a new era of high-definition gaming is upon us" (McHugh, 2005).

171 Fiscal year 2010 ran from April 1, 2009 to March 31, 2010 For example, the company's biggest business unit is "Consumer Products & Devices" (e.g. television's and video and photo camera's) while the Playstation related business unit "Networked Products & Services" contributed, with \$16 billion, a much smaller part of the annual revenue (Sony, 2010). Sony has five additional business units; B2B & Disc Manufacturing, Pictures (movie production), Music, Financial Services, and, with 50% ownership, Sony Ericsson Mobile Communications AB.

standards, for example in media formats - e.g. Compact Disc, MiniDisc, Universal Media Disc, Memory Stick, and the Blu-Ray disc (Daidj & Isckia, 2009). Several new media formats have been used in game hardware and provided Sony with a considerable competitive advantage, for example, with the launch of the Playstation, which was outfitted with a CD-ROM drive. Part of the Playstation's early success can be contributed to the fact that the company has been able to build a different kind of relationship with retailers, because of the CD-ROM's flexibility in production and (re)distribution, giving the firm a leg up over its main competitors (Asakura, 2000).¹⁷²

Microsoft, literally, comes from a different world. As a software engineering company, for the American behemoth software naturally comes first, hardware second. With an annual revenue of \$62 billion, the company may be smaller than Sony, but it is many times more profitable.¹⁷³ Its two biggest business units in terms of revenue are the "Windows & Windows Live Division" and "Microsoft Business Division", responsible respectively for the Windows operating system and the Office software suite (Microsoft, 2010).¹⁷⁴ Because Microsoft is not a hardware company, the Xbox's manufacturing and the development and manufacturing of its core components, are outsourced. Lacking manufacturing plants and knowhow itself, without the flexibility and capabilities of a major electronics manufacturing like Flextronics International Ltd., it is doubtful if Microsoft would have been capable (or willing) to enter the console market (cf. McHugh, 2005).¹⁷⁵ The differences in both companies' orientation, as well as their corporate histories, ring through in the design of both platforms as well as the slightly different implementation of the logic of flow publishing. More so than the Playstation 3, the Xbox 360 is positioned as a 'platform of consumption'.

There are two complementary strategic goals underlying the Xbox business: To gain access to the living room and to rival with Japanese companies who have that same goal. From its inception, the Xbox was meant as a "stepping stone" to pave the way for the true "Trojan Horse" in the living room: the Xbox 360 (Shippy & Phipps, 2009: 118-9; Takahashi, 2002; 2006).

172 Game cartridges, on the other hand, used in the mid 1990's by industry leader Nintendo, are more expensive to develop, take up larger inventory space, and take much longer to manufacture.

173 These figures are for fiscal year 2010 as well. Microsoft posted a net income of \$18.7 billion, Sony a loss of 437 million.

174 The three other units are "Server and Tools", "Online Services Division" and the Xbox (and other retail/hardware related products) related "Entertainment and Devices Division".

175 The outsourcing of hardware production is criticized, among other problems, for its exploitative labor schemes. As Lugo et al (2002) argue: "Consequently, we suggest that even though the technological values that characterize the video games industry are relatively different from traditional cultural industries (analogue media such as radio, television, film, et cetera), the nature of the economic relations between the agents of production is the same". The countries producing hardware (e.g. Mexico, Hungary, Taiwan, and China) are low-cost exporters, but, ironically, do not develop software, nor are they consumer markets. See for similar critiques: Consalvo 2006; Kline et al., 2003, De Peuter and Dyer-Witthoford, 2005.

Looking back, the Xbox was never meant to last and even though Microsoft executives never openly said so, Microsoft's first dedicated gaming machine was in every way a test bed for its much more successful successor.¹⁷⁶ Two years after the launch of the Xbox (2000), Microsoft went shopping for a new chip design for the next round of hardware (Shippy and Phipps, 2009: 117). By doing so, it 'locked-in' a performance path introduced by the first Xbox, which was positioned to "have a sense of power, advanced technology, innovation, and immediacy" (Takahashi, 2002: 157). The long-term vision for the Xbox product line is infused by a worldview that is rather technologically driven and profit-oriented. During the step-up to the next cycle, Microsoft is clear about the Xbox 360's core competencies:

Success in the transition to the next generation of consoles will depend on the availability of games for the console, providing exclusive game content that gamers seek, the computational power of the console, and the ability to create new revenue sources such as advertising and downloadable content (Microsoft, 2007: 11).

Apart from the somewhat abstract acknowledgement that the console is built to provide "exclusive" games that meet consumer expectations, the machine is above all positioned to be, again, more powerful as well as to exploit a new revenue stream; i.e. introduce and subsequently institutionalize the logic of flow publishing.

While the core competencies of Microsoft and Sony differ, both hardware platforms are on the same innovative path. Looking back, the decision by Microsoft and Sony to stay on the next-gen path was not so much a necessity, as it was a choice. Both next-gen machines seem to be based on the same technological roadmap and they are clear examples of incremental improvements in product performance. As such, the next-gen machines are anything but, what Christensen calls, "disruptive" innovations (2006: 10). They would be if they "redefined the performance trajectory", which, counter-intuitively, is done by introducing a product with worse product performance. Nintendo, finishing third in the three-way battle during the sixth console cycle, did make the choice to offer a disruptive technology.

One could say, fortune favors the bold in the uncertain times leading up to a new console cycle. The introduction of a new generation of console hardware inevitably rewards those industrial actors who are best positioned to be able to strategically seize the moment and exploit the many opportunities a new cycle affords, or, in innovation studies parlance, to

176 One of the powerful lessons learned is that to successfully exploit a hardware platform, a platform owner needs to be able to aggressively control component costs. The inclusion of a hard-drive in the Xbox was a component that kept manufacturing costs high and prevented Microsoft from lowering retail prices during the sixth generation.

“leapfrog” a competitor (Schilling, 2003). That is exactly what Nintendo did by offering a much cheaper console that offered a very different game experience. A decision that paid off handsomely. Whatever your measure of success in the cultural game industry is—revenue, profit, unit sales, hardware sales, broadening the gamer demographic, or “mindshare”—Nintendo won. Even though Nintendo is not a networked, HD-console and did not institutionalize the logic of flow publishing in the same way as Sony and Microsoft, the company should be part of any discussion on hardware innovation in the consoles segment. Next, I will briefly reflect how Nintendo implemented a different innovation trajectory and what the Wii brought to the table, in terms of innovative technology, during the seventh console cycle.

Wii are the champions

There is a (Dutch) proverb that says that 'While two dogs are fighting for a bone, a third runs away with it'. That's exactly what happened at the start of the seventh console cycle. The Nintendo Wii (2006) lived up to its codename and turned out to be a true Revolution. Nintendo's strategy for the Wii adapted and learned from the successes of its popular handheld device, the Nintendo DS, because it opted for interface innovation using motion-sensitive controllers rather than high-definition graphics and large amounts of computing power. By doing so, it introduced a different attribute for performance, not technological prowess such as raw processing power, but something more ephemeral as the combination of entertainment value combined with accessibility of both hardware and software. Christensen (2006: 133) explains:

Technology supply may not equal market demand. The attributes that make disruptive technologies unattractive in established markets often are the very ones that constitute their greatest value in emerging markets.

This observation captures the Wii's market position quite well. Instead of aiming at the so-called “core” gamers, it broadened the market and went after mothers, families, and other typical ex-gamers or non-gamers (Juul, 2010).

Whereas Microsoft has its roots in software and Sony in hardware development, pure

play company Nintendo has both.¹⁷⁷ Longtime Nintendo president Hiroshi Yamauchi stated that, in contrast to Sony, at Nintendo “software leads, hardware follows” (Inoue, 2010: 159). Following that logic, Nintendo purposely went “off the tech roadmap”, trying to lure back those gamers who gave up on their hobby, as well as tapping into new, largely untapped demographics. Nintendo's strategy broke with the existing business model and industrial paradigm on many levels. For example, its hardware was build on established technology, a strategy dubbed by influential Nintendo game and hardware designer Gunpei Yokoi as “lateral thinking with seasoned technology” (Inoue, 2010: 125). Yokoi's dictum aptly described the key to the Wii's success. By ignoring the cutting edge and instead focusing on accessibility of the hardware and its interface, the experience of playing games and its inherent properties like surprise, delight, and amusement led to a family friendly device selling, at the end of 2010, almost as much units worldwide (76 million plus) as the Xbox 360 and the Playstation 3 combined.¹⁷⁸

The disruptive nature of Nintendo's hardware is even more surprising considering the small number of individuals within the cultural game industry who saw Nintendo's success coming. Gamers did not anticipate it, nor did academics, journalists, and competitors. Even third-party publishers such as Electronic Arts and Activision Blizzard, whose profitability is largely depended on the ability to publish a sufficient number of Triple-A titles during the first crucial year of a new hardware generation's, waited months (if not years) to acknowledge the Wii's potential.¹⁷⁹ Similarly, Michael Pachter, analyst with Wedbush Morgan Securities, an American investment banking and brokerage firm and whose analysis is still included in many a press release and used by game journalists over the globe, wrote the following mid 2005—that is, before the launch of the Wii—in a report for investors:

We expect the dominant console at the end of the next cycle to be the Sony PlayStation 3 (PS3). However, we expect Microsoft's Xbox 360 to enjoy a first mover

177 In his analysis of the Wii as a “culturally defined platform”, Steven Jones (2008) attributes the success of the Wii to not only the platform's appeal to a broader audience, but also Nintendo's ability to incorporate its broad software catalogue and its rich history. Talking of the Wii's controller, Jones remarks: “In fact the Wiimote is a kind of material synecdoche, a part that stands for the whole, for the aura created by Nintendo's marketing strategy: a deliberate combination of relatively sophisticated human-computer-interface technology and retro-style intuitive simplicity, moving into the future of video games by returning to what Nintendo did best in its heyday in the 1980's” (Jones, 2008: 134).

178 Inoue (2010: 161) summarizes Nintendo's core principals as: “Be devoted to play. Be original. Understand the difference between appliances and toys. Know your limits”. Part of the success can be ascribed to the console's launch price. Nintendo put the razor-blade industry logic on its head by cutting hardware development costs allowing the company to make a profit on hardware as well as on software.

179 Consider Nick Earl, General Manager of Electronic Arts, who during the console transition indicated that the Wii was not a priority for the publisher. “The New Frontier in Gaming”, 2006. Available: http://ecorner.stanford.edu/author/nick_earl.

advantage for several years, and expect the 360 to garner approximately 45% of U.S. and European combined next generation hardware unit sales through 2007. We forecast the PS3 and Nintendo's Revolution to capture approximately 35% and 20%, respectively, of the next generation hardware market in this same period (Pachter & Woo, 2005: 7).

Instead of a 45/35/20 ratio for the Playstation 3/Xbox 360/Wii market share, at the end of the first half of the seventh console cycle (2005-2010), it came closer to 25/25/50. Suffice to say, the Wii's success caught everybody by surprise.

The Wii platform did not, however, mean the end of the Triple-A era. On the contrary, the formatting strategy of franchising is synonymous with Nintendo and its first-party titles based on game icon Super Mario epitomized the winner-takes-all logic of the video game blockbuster with serialized titles as *Mario Kart Wii* (2008) selling over 22.5 million units, *New Super Mario Bros. Wii* (2009, 16.7 million units), and *Super Mario Galaxy* (2007, 8+ million units).¹⁸⁰ The *Mario* franchise can be seen as one big published flow by itself. Mario, debuting as 'Jumpman' in the arcade game *Donkey Kong* (1981), appeared on every piece of Nintendo hardware (dedicated and handheld consoles) and in games from various genres (e.g. sports, puzzles, racing, platforming, beat'em up, etc).¹⁸¹

Testament to the influence of studies on disruptive innovations, if only on managerial discourse, is the work of management scholars Chan Kim and Mauborgne (2005) on so-called "Blue Oceans". This concept can be summarized as a firm's ability to focus on "value innovation". Rather than beating the competition, new uncontested markets are explored offering buyers and the firm a leap in value, instead of focusing on technological innovations (ibid: 2005: 12).¹⁸² Previous console cycles are fitting examples of a "Red Ocean", that is a highly competitive, entrenched market, focused on cutting-edge technology and going after the same customer base. In several interviews (Blakely, 2007; O'Brien, 2007) and public appearances, Nintendo CEO Satoru Iwata, one of the developers and main drivers of the Wii's architecture and strategy, revealed that he sees the "Blue Ocean strategy" as a validation of

180 Figures based on data available in December 2010. Other Mario titles on the Wii are *Super Mario Galaxy 2* (2010), *Mario Party 8* (2007), *Mario & Sonic at the Olympic Games* (2007), *Super Paper Mario* (2007), *Mario Strikers Charged* (2007), and *Mario Super Sluggers* (2008).

181 This number includes the bundled title *Wii Sports*, which is technically sold as well, albeit bundled with the Wii. These numbers are derived from Inoue (2010), http://en.wikipedia.org/wiki/List_of_best-selling_Wii_video_games (Last visited, July 27, 2010), and the information library with historical data on Nintendo's Investor Relations website (http://www.nintendo.co.jp/ir/en/library/historical_data/index.html). To put the impressive sales figures of the Wii software in perspective, the best selling third-party title was *Guitar Hero III: Legends of Rock* (2007), with a 'mere' two million units sold. The top-10 of best selling Wii titles (up until mid 2010) consisted of all Nintendo titles and comprised of roughly 200 million of its total of 550 million software units shipped.

182 See O'Gorman (2008) for a brief analysis of how the Blue Ocean strategy relates to Nintendo's business strategy for the Wii.

his strategic move: “The advantage for Nintendo is that we always try to do things that other companies don’t try to do. That is something that the general public appreciates” (Takahashi, 2009a). Nintendo broke the existing paradigm, a step which can be contributed to the company's corporate culture (Inoue, 2010), which, as Jones (2008: 142) observes, did not formulate a technology-driven roadmap, but instead came up with a set of more “basic concepts and goals”: broadening the market by offering a surprising, unique experience via affordable, and easily accessible hardware and software. The resurgence of Nintendo is indicative of the continuously shifting power relations in the Triple-A segment. It goes to show that innovation is not a purely technological driven process but a complex interplay of being able to wield high capital, leverage the proprietary nature of a hardware platform, and the ability to constantly shift recourses.

Media economists Shapiro and Varian (1998: 270) identify seven key assets of how to win a standards war, like being the most successful console on the market: “(1) control over an installed base of users, (2) intellectual property rights, (3) ability to innovate, (4) first-mover advantages, (5) manufacturing abilities, (6) strength in complements, and (7) brand name and reputation”. These assets neatly summarize the number of balls a platform owner has to juggle in order to keep afloat. The ability to innovate, as we have seen in this section, is one key asset, as is the leveraging of intellectual property. These assets come together in what can be seen as the economics of platforming. Next, I will look at how gaming hardware functions in a two-sided market, how hardware platforms diffuse, and why the distribution and usage of both gaming hardware and Triple-A games is not only complementary, but also leads to further concentration in industrial ownership.

7.2 The economics of platforming

For platform holders, securing market dominance in the console segment is a constant battle. Being the leading platform in one cycle does not guarantee dominance in the next. Even though Nintendo dominated the third console cycle with the Nintendo Entertainment System (1985), the sixth generation of dedicated consoles belonged to Sony's Playstation 2 (2000), making Nintendo's GameCube (2001) third in the race for market dominance, after the new entrant's machine (Microsoft's Xbox). Nintendo's comeback in the race with their Wii and DS platforms, two decades later, was as unexpected as it was triumphant. That said, the 2010 mid-cycle introduction of new peripheral hardware, i.e. the Kinect for the Xbox 360 and the Move system for Playstation 3, might shake up the race again midway. While the question which billion dollar company 'wins' a console cycle might seem like a trivial issue to be discussed on the pages of game magazines and blogs, the rate of diffusion of a hardware platform has profound ramifications for all actors associated with, or dependent on, a hardware platform. Especially publishers of Triple-A games.

That is to say, the cyclical innovation of proprietary hardware platforms is a crucial element of the Triple-A segment's techno-economic logic. However, not only is access to the means of production and distribution in the Triple-A segment regulated through a combination of technological and legal protection schemes, there is another significant barrier to entry: the access to, as well as the ability to wield high capital. Platform owners hold indirect power because of their ability to invest hundreds of millions of dollars, euros or yens in research and development of sophisticated hardware in a way few industrial actors are capable of. With the exception, arguably, of IT moguls as Google, Apple or Intel, there is only a small number of transglobal companies who have ready access to the institutional knowledge and the monetary flexibility to make such long term investments in, or one might say bets on, new dedicated console hardware.

The kind of power (i.e. the access to high capital), held by the current trio of console hardware owners, is much more diffuse compared to direct platform management: there are no direct technological barriers erected by incumbent platform holders to prevent newcomers. Steering clear of a large numbers of patents, copyrights and trademarks held by Microsoft, Sony and Nintendo, in theory anyone with a couple of billion dollars could launch a new hardware platform. As for competing with existing dedicated hardware consoles, one might want to hurry up. The risks for investors are already enormous and only growing. According to analyst estimates, the losses incurred by Microsoft from the launch of the Xbox onwards

totaled \$3.7 billion (Takahashi, 2006: 17), which is as much as \$168 per hardware unit sold. Similarly, the cost of the CELL chip alone—the “supercomputer-on-a-chip” powering the Playstation—cost the consortium of Sony, IBM and Toshiba \$400 million (Shippy & Phipps, 2009: 8). In order to mitigate risk, Nintendo, which lacks the diversified cash flow Sony has from its electronics divisions or which Microsoft derives from the Windows operating system and Office productivity suite, holds more than one trillion yen in cash reserves and follows a no-borrowing fiscal policy (Inoue, 2010: 100).¹⁸³

Because of these enormous investments, becoming a platform owner is a long-term proposition. And still, success in the console segment is all but certain as the company histories of Sega, Atari, and Philips will tell you. It took Microsoft a full console cycle, i.e. the sixth generation (2001-2006) to build an audience and the Xbox brand (Takahashi, 2006). The company had to come to terms with the intricacies of console hardware and software design as well as the power play among industrial actors across the value chain. In other words, one either has to have the cash flow to incur high losses year after year as Microsoft did, or one has to attract a large pool of investors with nerves of steel. As a result, the institutional trend of seven consecutive hardware generations breeds incumbency. Microsoft and Sony can be seen as two 800 pound gorillas in the (game) room who are not going anywhere. How has this come to be the case? To answer this, at first glance, devilishly simple question, I will, once again, fall back on media economics.

Once in business, platform owners are constantly balancing the strategies of exploration and exploitation (Ireland & Webb, 2007). For a firm to be competitive, and this goes not only for the cultural industries but for other unrelated industries as well, such as the automobile and pharmaceutical industries, managers need to exploit their current competitive advantages and to be on the lookout for future advantages through (constant) innovation. Both practices overlap, and considering the rapid rate of innovation in the cultural industries, the Triple-A segment's strategies are constantly evolving as well. As for exploitation, when new hardware hits the market, a platform owner's sole goal is to gain as much market share as fast as possible, if only for the simple fact that platform owners lose the most money on their hardware during the beginning of the cycle; the linchpin to success—long term profits—is to hit the ground running. As we have seen throughout this chapter, competition in the console segment is fierce, take the eye off the ball, or worse, dropping it, and a competitor will run away with it. During a cycle and in the run-up to the next, platform owners, via exploring

183 These numbers stem from December 2008. One trillion yen converts (roughly) to 9 billion euros (Summer 2010). Nintendo uses this reserve to be able to cover stock inventories and to finance future investments in research and development.

product, process and marketing innovations, are looking for ways to make their hardware cheaper, make its production and distribution processes more effective, and its platform as attractive as possible in the eyes of consumers.

Even if the position of the platform owner in the Triple-A value chain might be dominant, as we have seen in chapter 4, it is not almighty. The path of exploitation is dependent on many internal and external factors. Some elements are more directly controlled by platform owners than others. For example, consider the overall architecture of a console. Lowering the price of a platform, on the other hand, is only possible if component suppliers are able to hold up their part of the bargain: to continually invest in product and process innovation to bring component costs down. Platform owners are the ones who decide the architecture of the hardware platform, which in turn shapes the architecture of the software platform and of complementors. As far as hardware is concerned, the capabilities and in the end the success of a hardware platform owner is contingent on the innovations by other industrial actors. The production of a platform's individual components is often outsourced and process innovations by third parties can help to bring down the costs of a platform's development and distribution costs. Console developers are heavily reliant on the development and capabilities of critical components such as integrated circuits, i.e. chips (cf. Shippy & Phipps, 2009), or the price and storage capabilities of critical hardware components such as Random-access memory (RAM) and hard drives. The more modular a platform's design, the better a platform owner is able to take out individual components, such as the central processing unit, and have them upgraded or miniaturized, thereby saving costs.

This goes to show that hardware related innovation is decidedly industry driven. Next to the different types of innovation, and its pace, there is a considerable body of work done on the sources of innovations. There are three broad categories based on their functionality; manufacturers, suppliers and users (Von Hippel, 1988; 2005). Innovators are categorized based on the: "functional relationship through which they derive benefit from a given product, process or service innovation" (Von Hippel, 1988: 3). In the case of the original Xbox hardware suppliers companies—led by manufacturer Flextronics—like Intel (for CPU chips), ATI (for GPU chips), Western Digital (hard drives), and Micron (memory chips) played a role in the hardware design (O'Brien, 2001). The half-life of game hardware is tied to fast-clockspeed industrial actors such as component suppliers such as IBM and Intel. The role of users of innovations as a functional source of innovation is, arguably even more so than in other parts of cultural industry, significant. Users in this context can be both consumers or industrial actors. In the Triple-A market segment, Microsoft as a user of innovations, has a vital role in coordinating suppliers, overseeing manufacturing, and planning the machine's architecture. That said, in the

various accounts of how console hardware is researched, designed, developed and manufactured there is very little support of the claim that consumers are directly being involved in the various stages of hardware design.¹⁸⁴

The platform owner's constant balancing act of exploration and exploitation translate into a set of strategies and patterns which all hinge on the successful diffusion of innovations, a popular term in innovation studies. Everett Rogers (2003), in his landmark study of the diffusion of innovations—theorizing how, why and how fast innovations proliferate—explores the stages of innovation adoption and explains that their rate of diffusion is not set in stone. Moreover, the diffusion of innovations is a thoroughly social process relying on communication among the sources of innovation (e.g. platform owners) and peers (users). For example, characteristics of innovation diffusion, such as the complexity of an innovation might have early adopters (or “lead-users”) to drop an innovation and by doing so preventing or stalling its adoption. In the remainder of this section, I will explore the questions raised by diffusion theory, but mostly by focusing on the economics of the diffusion process. The debate on the concentration of industrial ownership, as I will argue, is largely shaped by the techno-economic logic of innovation and platforming. However, the work of Rogers (2003) serves as a reminder that, in the end, it is the end-user (i.e. the consumer) who is the be all and end all of the Triple-A's techno-economic logic. That is, while a platform owner might be well positioned in the game value chain, it is the consumer who decides the fate of a platform. Next, I will discuss the competitive dynamics and the business strategies defining the successful diffusion of innovations in the Triple-A segment, but I am also interested in the implications of widely diffused (product) innovations.

Network effects in an upgrade culture

Scholars in the field of neoclassical economics have taken great interest in the cultural game industry, and the console segment in particular, for three reasons. First, an obvious reason why the console wars—the process of innovation in the console segment—have captured the interest of economists is undoubtedly the involvement of leading, multi-billion dollar

184 With the advent of the networked information economy, users have a bigger role in product innovation. Yet, this does not concern end-users vis-à-vis hardware platforms. Industrial actors, for example game engine developers do have a say in a platform's architecture: “For the game workloads, the designers’ direction came from interaction with game developers, including game engine developers, middle-ware developers, tool developers, API and driver developers, and game performance experts, both inside and outside Microsoft” (Andrews & Baker, 2006: 34). The technical roadmap of the Xbox 360, Playstation 3 and Wii, are arguably not co-created with end-users in a similar way software is (the latter form of user-lead innovation is described by Prügl & Schreier, 2006; Prahalad & Ramaswamy, 2004; Postigo, 2003).

companies (Nintendo, Apple, Google, Microsoft). They finance cutting-edge research and development, or, in other words, sustain the industry's amazing pace of innovation, and they are, not unimportant to management scholars, highly profitable. Second, as we have seen in the previous chapter, considerable attention has been paid to the platforming strategy and its two-sided market model because of its divergence from traditional, one-sided markets. The console segment's two-sided market provides management scholars with a set of case studies to locate the platform owner's competitive advantages as well as those of its complementors. Management professors Shapiro and Varian (1998: 173) put this interest into an economic and historical perspective and argue that whereas the "old", physical economy is based on economies of scale, the information economy is driven by the economy of networks. And while the field of inquiry focused on network markets is somewhat new, it is rather well developed (Page & Lopatka, 2000). Third, what sets the Triple-A segment apart from non cultural industry sectors, is that competition between proprietary platforms is not solely based on traditional competitive strategies, such as pricing and (product) quality, marketing, value chain management and so on, but also on the availability of software and other consumers owning hardware. This last aspect will be analyzed below, as it is central to the Triple-A segment's techno-economic logic.

What connects the proprietary platforming strategy with the process of cyclical product innovation are (positive) network externality effects, also referred to by economists as demand-side economies of scale (Hoskins et al, 2004; Page & Lopatka, 2000; Shapiro & Varian, 1998; Shankar & Bayus, 2003).¹⁸⁵ The growth of a console's installed base (the number of hardware sales) is not only a key measure of success for platform owners, its diffusion influences also its relationship with game publishers, suppliers of hardware technology and consumers. The theory of network effects, then, poses that the value or utility of a good or service (whether actual, perceived or anticipated value) is causally related to the number of goods or services sold (rented, or subscribed to), or anticipated to be sold (Schilling, 2003). The two-sided nature of the platforming business gives way to a market in which the platform owner acts as an intermediary who interfaces between game publishers and gamers, all the while keeping an eye on its own bottom line (Evans et al, 2006).

Positive network externalities, as they pertain to the console segment, break down into two sub-categories (Daidj & Isckia, 2009; Page & Lopatka, 2000). Direct network effects arise from the increased utility of other consumers using a product or service. For example,

185 As we have seen in the previous section, in (neoclassical) media economic terms, the hardware platform is seen as the primary product and games as complementary products (Hoskins et al, 2004).

when more people own an Xbox 360 and play online, there is a sizable user base to play against when booting a shooter at 3 o'clock at night. Indirect network effects are emblematic for the hardware/software integration of the console business and arise when the utility of a primary good depends on the availability of complementary goods. Simply put, gamers are more likely to buy a console when there is a sizable library of (quality) games (cf. Binken & Stremersch, 2009). At face value, both processes seem rather complementary and if successful, together they result in a positive feedback loop.

Apart from platform owners, third-party publishers are the main beneficiaries of a large installed base, if only for the simple fact that it means a bigger potential market. For game publishers, a new generation of hardware is both an opportunity as well as an incredibly risky endeavor. Making the right bet would be to predict which platform will sell the most during its first two years when hundreds of millions of dollars are to be made, potentially cementing one's position as the platform's dominant third-party publisher. Conversely, failing to recognize or underestimating the possibilities afforded by new genres, new business practices, or the capabilities of new hardware, can set a company back for years. The seventh generation of console hardware is no exception, and for game publishers the stakes just got raised once again.¹⁸⁶

At the same time, the dedicated console took over the PC in terms of (potential) revenue. This means that the ability to successfully publish a blockbuster game on either the Xbox 360 or Playstation 3 (or both), has become a significant revenue generator. For some publishers success on the platform is key to their survival. The result of the tension between publishers and a platform owner is a continuous back and forth between publishers who "signal" (often through interviews with the press) that the price of hardware should come down to "mass market levels" (i.e. where \$150 floats around as the ideal price point), while hardware platforms are anxious to recoup costs and keep a lid on (temporary) losses.

It is a platform owner's job, then, to serve as a matchmaker, to build an audience and to provide easy and cheap access to its platform (Evans et al., 2006). However, platform owners, and next-gen hardware manufacturers in particular, have to weigh the loss or small profit margin for each console sold against the benefits of having a potentially larger 'installed base'. As for the benefits of the latter, the higher the number of consoles in use, the higher the chances are of selling Triple-A games resulting in royalty payments from third-party publishers for each game sold. As Tomaselli et al (2008: 22) observe, the Playstation first retailed at \$399

186 The seventh generation's emerging hybrid distribution model, illustrated by the Horse Armor debacle in chapter 2, leaves open room for experimentation, but also for higher risks.

dropping to \$99 almost a decade later. These costs reductions, however, were “not aimed at increasing profits, but at reducing prices to increase the installed base, increasing positive feedback, and allowing Sony to bring more developers to the console, with whom they sought to create a strong relationship” (Desphande, 2002). Microsoft and Sony are performing a constant balance act of building an installed base that satisfies game publishers, which leads to more games and thus, indirectly, to more gamers, as well as to bring hardware costs down to an acceptable level. What makes the process more complex is the fact that the console business is in a perpetual state of innovation. Cyclical innovation in the age of ubiquitous networks means that in a business that is based on hardware standards, those same standards are only temporary and technologies, tools, strategies, and business models change constantly.

Given the rising popularity over the last decade of the applanization of hardware platforms (Zittrain, 2008), the console segment, depending on one's perspective, either embodies a set of ideal competitive strategies or the beginning of a proprietary regime in which a small set of powerful platform owners decide what to use, when and how to use it. At the core, these two scenarios and their theoretical and ideological underpinnings correspond with the epistemological orientation of business and management studies versus the holistic and historical perspective of critical political economy. Both hold a radically different view on what the implications are of the increasing concentration of industrial ownership inherent to constantly updated console hardware and subsequent network effects. For media economists (and their business strategy minded cousins in management studies), the fact that network effects led to a positive feedback loop which essentially translates into 'bigger is better' (Shapiro & Varian, 1998) is not so much unavoidable; it is the field's primary objective.

Authors from both the critical and neo-classical bend agree that, for a platform owner, growing one's network by facilitating direct and indirect network effects leads to a situation in which consumers become locked-in.¹⁸⁷ Because of the incompatibility of proprietary platforms, every single investment in game hardware and software makes it harder for consumers to abandon a platform and switch to a competing one, a situation also known as a “vendor lock-in”. Gamers tend to buy more than one game during a console's lifecycle; halfway through the next-gen cycle, the average number of games bought per user, per platform for the next gen

187 Suffice it to say, for the latter group of scholars, the goal of locking in consumers is an end to more power and profit that it does not even has to be stated.

consoles hoovers around 7.5.¹⁸⁸ These “durable investments in complementary assets” (Shapiro & Varian, 1998: 104) can become a considerable strategic advantage for platform owners. For a consumer, switching mid-cycle from a Playstation 3 to an Xbox 360, and to rebuild one's hardware set-up with a matching software library, is quite costly. In the case of so-called 'exclusives'—software titles published for a particular hardware platform—switching platforms is impossible. Next to investments in durable products, there are complementary ways users get locked-in as well. Because of direct network effects and the networked nature of console hardware, gamers build up their online personas (the persistent “gamertag” on the Xbox 360 and the Playstation 3's Online ID), invest in and gain social capital (or more specifically, “gaming capital”, Consalvo, 2007), and unlock Achievements and Trophies (a persistent point mechanism indicating the advancement through games).

What is different from many other industrial sectors, is that network effects in a platform (or standards-based) industry, like the console segment, are not only vital, but they also have a recurring pattern. Constant innovation sets up networks and breaks them down again. Network effects as an economic phenomenon are not new, they existed well before the rise of the information economy. The techno-economic logic underlying the console segment institutionalized strategies on how to harness positive feedback. One of the main network effects related challenges in management literature is how to launch a new standard. In the end, cyclically upgraded proprietary platforms result in standardization and entrenchment, not so much because of some evil master plan but simply as a result of the underlying strategy in a two-sided market.

Whatever your measure of success is, over the last decades the cultural game industry has shown that it is capable of coordinating massive switches from one cycle to another. One of the reasons for being able to do a massive reboot, to turn a multi-billion dollar industry upside down every five years, is that it is expected: “consumer expectations are vital to obtaining critical mass necessary to fuel growth. During the early stages of product introduction, expectations management is critical” (Shapiro & Varian, 1998: 224). Apart from the unavoidable marketing costs associated with platform launches, coordination costs—signaling to consumers the availability of a new platform—are arguably lessened by the institutionalized, that is the to-be-expected nature, of constant hardware innovation. I will conclude this chapter by arguing that the perpetual nature of innovation in the Triple-A

188 The number of games sold per platform is also known as the tie-ratio. These numbers come from Microsoft Benelux Entertainment & Devices Division director Paul Naber. 't Hooft et al. 2010. “In gesprek met Xbox-baas Paul Naber over Microsoft, Xbox 360, Kinect en meer”. Bashers.nl. Available: <http://bashers.nl/in-gesprek-met-xbox-baas-paul-naber-over-microsoft-de-xbox-360-kinect-en-meer>. Last visited: July 14, 2010.

segment is capital infused, and when it comes to hardware related product innovation, clearly an industrial driven, top-down process. Yet equally important, the diffusion of such innovations as well as the relationships of platform owners with game publishers and consumers cannot be not fully understood without accounting for such processes being embedded in, what Dovey and Kennedy call, an “upgrade culture” (2006).

It is through the rhetorical modus of implication, of making a gamer feel that he or she needs that new shiny hardware that embodies the Triple-A experience. The cultural game industry needs and breaths ‘freshness’. Dominant gamer and industry discourse—it is sometimes hard to tell where one starts and the other ends—demonstrates this so well. Think of the pervasive ‘next-gen’ label used lovingly by all. Arguably, labor and industry organizational characteristics, the inherent pleasures of consumer ideology and pervasive mass marketing campaigns, all reify the game industry’s fast spinning production-consumption feedback loop. As a result, the Triple-A segment is permeated by an all pervasive forward looking ideology which is not so much a top-down process as much as it is fed by the eagerness of gamers, journalists, game publishers, marketers, and, of course, platform owners.

As we have seen at the end of chapter 4, game journalism has a central role in creating, sustaining and channeling the desire to consume: “[Gaming magazines] imply that readers need to be constantly buying games, or else they will miss out on these wonderful advances and milestones in gaming history” (Consalvo, 2007: 22). For many gamers being able to answer the “what's next?” question, means being a full member of the gaming community and the collective anticipation of what is beyond the ludic horizon is a crucial part of the Triple-A experience. The techno-economic logic has become a hegemonic cultural construct in the sense that it is discursively ‘maintained’ by gamers, the industry and the game press. Kline et al. (2003: 220) talk of “the logic of perpetual technological upgrades” when they describe the historical development of game consoles and the integration with new marketing techniques and the game's form: “[The] relatively short-lived play value of software and the successive wave of hardware innovation in the technology circuit create an incessant upgrade dynamic of new commodity releases”.¹⁸⁹ Hardware and software innovations in the cultural game industry go hand-in-hand: “Still, the point is that, just as steel-plate engraving helped to define the form (and ultimately, the meaning) of poetry in Britain in the 1820's and 1830's, so game console technologies help to define the form (and meaning) of video games inspired and constrained by those technologies” (Jones, 2008: 131). So what does this means for software innovations?

189 Perpetual innovation, a concept coined by Tessa Morris-Suzuki (1998), stands for a capitalist firm's ability to leverage research and development and to focus on constant innovation of products thereby shortening the life of a product cycle. The cultural game industry has always been a poster child of this mode of production.

And in terms of hardware, how are Triple-A games structured by product and process innovations?

The organizational innovations afforded by digital distribution subsequently alter game software. This leads to new formatting strategies such as branched serialization and as well as to new consumption practices. By doing so such innovations fundamentally alter the Triple-A game's commodity form. Surprisingly, while popular gamer discourse is full of talk of game related production innovations, especially concerning game software, scholars in the field of game studies rarely touch upon software related innovation debates. And if they do, critical scholars paint a somewhat bleak picture: "The available evidence suggest that while the platform manufacturers and publishers work hard to develop new technological innovations they are less willing to take a risk on content innovation" (Kerr 2006: 93). While there are a couple of worthwhile and sustained analyses of game hardware innovations from the perspective of management studies, critical and normative analyses of not only what qualifies as innovative game design, but also how to theorize this from an innovation related point of view, is much more rare. In the next and last chapter of this book I will reflect on the nature of the two formatting strategies associated with logic of flow publishing and how network effects also apply to software distribution. I start with a reflection on the hit-driven nature of the Triple-A segment and continue by tying together the issues of concentrated ownership and the segment's techno-economic logic. I will conclude by offering a sustained critique on the rationalization of cultural production, which is inherent to the formatting strategies underlying the Triple-A commodity form.

Chapter 8 - For The Win!

The high rate of incumbency of Triple-A game publishers and next-gen platform owners speaks volume of the segment's high barriers to entry. The business of developing and publishing console games is one of high investments and a small chance to break even, let alone of high returns. Following the many indigenous and exogenous risks a game publisher faces, as well as the structural challenges related to Triple-A publishing and a climate of constant uncertainty, one might wonder: Is the current mode of blockbuster production financially sustainable? The short answer is: yes. But profitability comes at a price. The risk versus profitability dichotomy begs the question how game publishers, given the unabated volatility of their business environment, are able to keep growing their businesses.¹⁹⁰ Political economists agree that the capitalist mode of cultural production in general translates into a set of specific risk management strategies (Björkegren, 1996; Hesmondhalgh, 2007; Ryan, 1991). Over the years industry professionals on their part have pointed toward the reactive nature of the strategies deployed by traditional game publishers. Rather than a conscious strategy implemented with great care, the flow publishing logic, however innovative and unprecedented, is a strategy that evolved under pressure, as I noted in chapter 2 and 3. Above all, the flow publishing strategy should be seen as a way to reduce risk by extending the life cycle of the Triple-A commodity.

My interest in this chapter does not so much concern how game publishers deploy generic management strategies, for example the outsourcing of development tasks to low wage countries or revenue diversification strategies through the extension of publishing activities beyond the Triple-A segment. Rather, I want to consider how specific development and circulation related risk management strategies shape and affect the Triple-A commodity form. Before discussing the implications of the next-gen mode of blockbuster production, I will first argue that the Triple-A video game has in every way become a bigger value proposition for platform owners, game developers, publishers, retailers, and consumers. While critics, journalists and scholars might herald the information economy as the moment during which the mass produced, mass marketed and mass consumed cultural commodity may either become less dominant or is complemented by a wide range of niche offerings, it is exactly the

190 In terms of revenue growth the Triple-A segment keeps growing considerably. For example, 2010 marked the seventeenth year of revenue growth for game publisher Activision Blizzard. In fiscal year 1993 Activision posted a net revenue of \$21 million, growing to 864 million in a decade, resulting in Activision Blizzard posting 4800 million in net revenue in fiscal year 2010 (Activision Blizzard, 2010).

networked nature of both hardware platforms, such as game consoles, e-readers, and tablets, as well as software platforms, for example Facebook.com, that make big hits bigger rather than smaller. The “network effects” discussed in the previous chapter equally apply to the inherently social practice of networked game play and they are a powerful catalyst of the concentration of capital, ownership, and hit titles.

The contemporary business of selling books, records, movies, and games epitomizes the notion of a so-called “winner-take-all market” (Frank & Cook, 1996). The advent of digital distribution, often coupled with advanced recommender systems, might indeed open up niche markets; these complementary technologies do not spell the end of the blockbuster movie, the bestseller book, nor the Triple-A console game (Fleder & Hosanagar, 2009). On the contrary, hits are as much a cultural phenomenon as they are economically motivated and driven by technological innovations. Therefore hits are as much a significant part of the twenty-first century information economy as they were of the non-networked age of mechanical reproduction. Not all of the logics and dynamics underlying the cultural industries are changing; new affordances are appearing for creating hits. Therefore, hits are here to stay and they are many times bigger than ever before.

Being embedded in a permanent upgrade culture, the next-gen era coincides with the growing risks of publishing next-gen titles. Simply put, the high-definition (HD) era demands HD budgets. On top of that, compared to the many afterlives of a blockbuster film—raking in operating income from the box office, DVD sales and television licensing rights—the revenue generated from next-gen Triple-A titles still is rather straight-forward and primarily based on the one time transaction of 'packaged goods'.¹⁹¹ As for video game publishing, one could say that the more things change, the more they stay the same. The console segment has always been a for-profit constellation effectively leading to a hit oriented publishing strategy. The next-gen era does not only has publishers seek out hits, and hits only, but because of the game publisher's singular revenue stream combined with ballooning development budgets, Triple-A games are positioned to be best seller games that garner a disproportionate amount of revenue and attention.

In the end, the next-gen Triple-A game is a mass marketed cultural commodity and in order to sustain their businesses, game publishers deliberately follow the deliberate strategy of developing fewer but bigger propositions. Because of that publishers walk the thin line between the exploitation of existing themes, ideas and game mechanics vis-à-vis careful

191 While the advent of the networked console had game publishers scrambling to generate additional revenues from game related advertising, both in-game ads or other promotional activities, many of these strategies did not generate significant amounts of revenue (cf. Nieborg, 2006b).

experimentation with new formulas, brands and templates. To theorize and critique the Triple-A commodity form more in-depth, I will briefly reflect on, and advance the argument made by the Frankfurt School. Concepts and issues originating from early critical theory—standardization, homogeneity and predictability—are distinctive features of the dominant mode of production and circulation in the Triple-A segment. Game critic Tom Bissell (2010: 6-7) rightfully points toward the art direction of big-budget games having “the cheerful parasitism of a tribute band”, turning console games into the “most visually derivative popular art form in history”. Drawing on the work of Ryan (1991), I will consider, critique and theorize the cultural game industry's primary risk reducing strategies as they pertain to the Triple-A game's commodity form.

By discussing the consequences of the process of commodification I will offer an alternative, critical perspective to engage with the standardized Triple-A commodity form and the Triple-A segment's rationalized mode of cultural production and circulation. Game publishers in particular leverage risk-avoiding strategies through formatting cultural production, for example via the franchising and branched serialization strategy as well as via marketing and building portfolios. By doing so, I will argue that the next-gen Triple-A game's commodity form is not only the result of the segment's techno-economic logic and the institutional locatedness of the game publisher within the game value chain, but also mutually constituted by various rationalization strategies. Taken together, the circuits of capital and culture turn Triple-A publishing from a risky business into a controlled, almost predictable, gamble.

8.1 The Tyranny of the Hit

The cultural significance and the ever-growing sales figures of Triple-A franchises such as *Call of Duty*, *Halo*, *Bioshock*, *Grand Theft Auto* and *Assassin's Creed* show that the next-gen era still is extremely hit-driven. Not only that, because of increasing budgets and accompanied risks the HD era features bigger hits than previous cycles, resulting in fewer titles selling more units over a longer period of time. The financial success of the *Call of Duty* franchise shows that, apart from putting an artificial cap on the number of Triple-A games published, hit-driven market dynamics go beyond the techno-economic. As Shirky (2008: 95) observes: "Whatever the technology, our social constraints will mean that the famous of the world will always be with us". The ability to generate a disproportionate amount of attention (a central tenet of the notion of fame) is as much a socio-cultural property as it is a techno-economic one. Success breeds success for the simple fact that consumers deploy various risk management strategies themselves:

The time a player will invest in playing a major new game is typically at least twenty hours, a figure that in the case of multi-player or role-playing games may run into the hundreds or even thousands. This means that ill-made, disposable products simply don't work in the gaming mainstream (Chatfield, 2010: 28).

In the end, I am not so much interested in gamer sentiments, perceived or real, either created by clever marketing or stemming from pure dedication to game brands; rather, I am interested in questions like why the flow publishing logic has become a dominant logic, how the blockbuster form has become the de facto standard across next-gen platforms and, above all, why big companies, franchises, investments and audiences, keep getting bigger. Regardless of the inherent pleasures of consuming these games, a question rarely posed concerning the game industry's growth is why there is nothing outside for-profit Triple-A production and what these possible alternatives might look like? To find and answer to these question means once again getting back to media economics.

Drawing on the work of economist Sherwin Rosen (1981, cf. Schulze, 2003), who was among the first to theorize the "economics of superstars", economists Robert Frank and Philip Cook (1996) regard the phenomenon of hits and stars to be a logical element of so called "winner-take-all markets". These markets are characterized by "relative performance"; quality is based, or perceived, on a relative scale by comparing a product or person against others rather than on its own absolute terms. The result of relative performance is a reward structure

that translates into attention or revenue for a small number of hits or stars. More so than non-durable consumer goods such as fabric softener or food, Frank and Cook found that the winner-take-all market dynamic is particularly strong in the cultural industries. Western consumers are all familiar with the notion of the bestseller book, the hit song, popular TV-series and blockbuster movies. To single out the latter, from the 1950's onwards, Hollywood "in terms of budgets, production values, and market strategy" has been "increasingly hit-driven" (Schatz, 2003: 15).¹⁹² Starting with the mega-hit *Jaws* (1975), and followed by a slew of movies from directors George Lucas and Steven Spielberg, during the 1980's the blockbuster movie evolved into the "super-blockbuster". The super-blockbuster, as referred to by Schatz, is a heavily marketed, big-budget, super-hit that continues to generate revenue well beyond the box-office, primarily via "secondary markets" such as pay cable, rental revenues and turning it into a serialized property. We can see some clear parallels with the historical evolution of the super-blockbuster movie and the publishing logic of the next-gen Triple-A game.

Historically, consecutive console cycles offered more complex technology and demanded bigger development budgets—another strong resemblance to the rise of the blockbuster movie. Film scholar Michael Allen (2003: 103) notes that movie related technological innovations, such as sound (1920's), widescreen (1950's) and digital post-production techniques (1980's) resulted in a: "progressive shift toward the production of fewer, and more expensive, films using increasingly complex, and equally expensive, new technological systems". This, what Allen (2003: 108) calls, "blockbuster mentality" means that such movies: "have to have an immediate and massive impact on the marketplace, earning hundreds of millions of dollars in a few weeks". Here we see a striking parity with the Triple-A segment's techno-economic logic discussed in the previous chapters.

As for the next-gen console cycle, cyclically upgraded technologically not only means that hits are here to stay, but that they need to be bigger than ever before. At the dawn of the next-gen era, Electronic Arts' annual report is clear about the prominence of hits for the company:

The interactive software game business is "hit" driven, requiring significantly greater expenditures for marketing and advertising of our products. There can be no assurance that we will continue to produce "hit" titles, or that advertising for any product will increase sales sufficiently to recoup those advertising expenses (Electronic Arts, 2005).

According to game industry management, hits are essential for the long-term survival of game

192 Ironically, this shift coincides with the legally enforced end of vertical organization and therefore the end of movies studio's control of distribution and exhibition. When the assured pipelines ended, hits emerged as the new way to control the market. In the Triple-A segment, the assured pipeline (i.e. the platform) is still there.

publishers. Increasingly, executives of Triple-A game publishers emphasize the importance of developing and distributing successful blockbusters as the sole way toward profitability. Electronic Arts CEO John Riccitiello singles out “driving hits” as one of the game publisher's key strategies.¹⁹³ This approach to Triple-A publishing is labeled “fewer, bigger, better”, meaning that a smaller slate of franchises—*The Sims*, *EA Sports Active* (2009), *Dragon Age*, and *FIFA*—become bigger propositions, requiring higher investments, and hopefully better results.¹⁹⁴ The 'fewer and bigger' strategy is a deliberate attempt to institutionalize the winner-take-all market dynamic.

Game publisher executives explicitly point to the Triple-A segment's hit-driven nature as a reason to, on the one hand, focus on bigger properties, and on the other hand to further refine the flow publishing logic. Eric Hirshberg (2010), CEO of Activision Publishing, stresses the lopsided revenue split among Triple-A titles: “[...] we continue to see the top ten titles in the industry grow disproportionately year-over-year”. He then goes on to link this trend to both the networked nature of the next-gen console and to the branched serialization format strategy by noting that top ten titles are: “[...] online enabled and introduced expanded content like *Call of Duty* and Bungie's *Halo*”.¹⁹⁵ Hirshberg's explanation is anything but unique and from 2005 onwards his competitors have continuously linked, although in slightly different terms, the flow publishing logic to a hit-driven, winner-take-all publishing strategy. With the advent of the HD era, leading game publishers solidified the position of the hit as both an economic necessity and a socio-cultural phenomenon. Moreover, they live and breath a permanent upgrade culture which stresses perpetual innovation and which has a particular forward-looking ethos.

Following Hirshberg's attention for the networked nature of the next-gen console, it is important to note, as Frank and Cook (1996) observe, that network effects, similar to those

193 To be sure, Riccitiello is not alone in his focus on a smaller slate of bigger hits. EA's closest competitors in the business of selling next-gen Triple-A games follow a similar strategy. Ubisoft took the strong 2009 holiday sales of its next-gen blockbuster game *Assassin's Creed II* as a sign showing the company's “ability to make [their] franchises bigger” (Ubisoft, 2009). Ubisoft CEO Yves Guillemot then promised its investors “strong investments” in “bigger games”. “Ubisoft: First half 2009-10 earnings”. 2009. Available: http://www.ubisoftgroup.com/gallery_files/site/270/1042/2156.pdf. Last visited January 6, 2011.

194 Apart from “driving hits”, the other four key strategies are more investments in digital distribution and services, strong cost management, improved marketing, and a more comprehensive strategy to profit from the Nintendo Wii's success (“Third quarter fiscal 2009 earnings call”, 2009). The highly subjective property of “better” is quantified by Riccitiello as critical acclaim measured on aggregation websites as [gamerankings.com](http://www.gamerankings.com) and [metacritic.com](http://www.metacritic.com). Ironically, it is the game publisher who heavily influences game scores via indirect and not so subtle means (Nieborg, 2010), making the aggregated score a highly flawed and a typical instance of “relative performance”.

195 Similarly, Electronic Arts' Chief Financial Officer Eric Brown explains: “It's really a combination of two things driving the packaged goods portfolio. Again, 80 or so percent of our packaged goods revenue comes from the top 20 titles, so getting those titles to chart and perform and extend via DLC, etc., is extremely important for the management team” (Brown, 2010).

pertaining to the double-sided platform market discussed in chapter 7, are what help seed and grow a winner-take-all market. Network effects, or “positive feedback” means that more gamers buying more of the same is a result of the natural limitations to the amount of choices a consumer can handle (Schwartz, 1997). On the one hand, the explanation can be found in socio-cultural properties such as habit formation and acquired tastes. Much like television series, game franchises are a way to keep gamers inside the brand community: “Serialization rewards the competency and mastery of loyalists” (Jenkins, 2006: 78). Put in negative terms, gamers seem to stick with what they know, avoiding search costs and the risk of regretting a purchase. As such, consumers can feel that they have locked themselves in through learning (e.g. the lay-out of buttons, the mastery of an interface or multiplayer strategies) or through investments in time or game enhancements (e.g. in unlocking game or franchise related achievements, buying peripherals like guitar shaped controllers, or strategy guides). What makes this dynamic all the more powerful is the fact that gaming is an inherently social practice. In order to play online with your friends, you not only have to have the same hardware platform, you also need to own the same game and optional downloadable content. This partially explains why gamers migrate en masse from sequel to sequel.¹⁹⁶

After such compelling examples of hits deliberately getting bigger, it might come as a surprise that there are those who spelled the demise of the hit and thus of the blockbuster. Wired magazine's Chris Anderson (2006), points toward previously inaccessible niche markets, which, in aggregate, are said to have an economic value rivaling with the combined revenue generated by a much smaller number of old fashioned hits. The lowering of the barriers of production and distribution, coupled with tools and practices connecting supply and demand, Anderson argues, lead to a “Long Tail business” where mass markets are complemented or even replaced by niche markets, ending, no less, the “tyranny of the hit” (2006: 218, cf. Brynjolfsson et al., 2006). Anderson sees video games as being part of this trend. This is surprising because the premise of his argument is partly based on the advent of digital distribution. However, as the hybrid nature of the Triple-A game suggests, the 'move toward digital' is not only far from completed, this transition is also embedded in a closed-off proprietary eco-system and driven by network effects which in turn push the rise of the hit.

The mantra of 'fewer, bigger, and better', coupled onto the flow publishing logic has become the dominant publishing logic in the Triple-A segment. Ironically, the flow publishing strategy is clearly rooted in the twentieth century: “If the twentieth-century entertainment

196 The monthly figures for Xbox Live activity provided by Xbox 360 Director of Programming Larry “Major Nelson” Hryb on his blog show how gamers hopped from sequel to sequel, particularly in the case of the *Call of Duty* and *Halo* franchises. See: <http://majornelson.com/archive/tags/Top+LIVE/default.aspx>

industry was about *hits*, the twenty first will be equally about *niches*" (Anderson, 2006: 16, emphasis his). Yet, the Triple-A business model is clearly based on the traits Anderson (2006: 167) associates with the era predating digital distribution as it demonstrates "scarcity thinking", meaning that instead of user created abundance, "everybody is in it for the money", "if it isn't a hit, it's a miss", and "the only success is mass success". Compared to music, movies or even web based Flash games, the number of Triple-A titles published during console cycles is quite low, and keeps going down, up to a point that there is nothing in the tail to sell. There are lots of misses, sure, but the Triple-A business is the antithesis of what Anderson sees as a "consumer paradise" where choice reigns supreme and where there is an abundance of different titles.

Economically, the Triple-A business does not correspond with the Long Tail model either. In terms of revenue, Triple-A games far outsell any other product on the next-gen console.¹⁹⁷ On top of that, the Triple-A game has one dominant distribution model and is above all a physically distributed product, which puts natural limits to the number of titles on sale. Other economic principles constituting the Long Tail model— like elastic pricing, the Triple-A game's standardized and uniform commodity form—hint at the end of the hit. In addition, there are some caveats as to which consumer is buying what. In practice, heavy users more so than casual consumers take advantage of the availability of rare, niche titles sold via online marketplaces. Again, this particular instance of combining digital distribution with connection mechanisms do not challenge the hegemony of the hit.¹⁹⁸ Moreover, as we have seen in the previous chapter, the next-gen Triple-A video game business is capital intensive and driven by relentless innovation, making niche Triple-A titles by nature of their smaller markets and lower revenue economically unviable.¹⁹⁹ Next, before discussing the risk reducing strategies employed by game publishers, I will provide an overview of the risky nature of cultural production.

197 Overall, of the roughly half a billion euro spent by Dutch consumers on games, half goes to console games while the other half is distributed among various platforms such as mobile, PC boxed games, casual games et cetera (Personal interview Peter Warman, March 12, 2011).

198 The premise of Anderson's core argument—the economic significance and the socio-cultural impact of a Long Tail business—is challenged by business scholar Anita Elberse. After analyzing the consumption of online music and movie rentals Elberse (2008: 96) concludes: "Although no one disputes the lengthening of the tail (clearly, more obscure products are being made available for purchase every day), the tail is likely to be extremely flat and populated by titles that are mostly a diversion for consumers whose appetite for true blockbusters continues to grow".

199 Also, disc based golden oldies are often incompatible with next-gen machines as technological standards change every hardware cycle.

8.2 From Risky Business To A Controlled Gamble

From big corporate behemoths down to the individual consumer, the many, often significant investments in social and monetary capital related to Triple-A game production, circulation and play are not only a necessity, they are also highly contingent and fraught with uncertainty. Historically, the business of selling cultural commodities and associated hardware has been a particularly high-risk endeavor (Miège & Garnham, 1979). Looking at the interactive entertainment sector, this means that a new hardware platform might underperform and diffuse too slowly, forcing a platform owner to lower prices and to suffer significant losses. Consumers, for their part, have to weigh some serious investments in time and money as well. That game that seemed so appealing in a game preview or in a TV commercial may turn out to be a serious disappointment. Considering a Triple-A game's price tag vis-à-vis an average consumer's discretionary income, the blockbuster game has in many ways become a strategic investment. Apart from buying a game, consumers have to invest in console hardware (console, cables, peripherals, a decent TV set), as well as in optional subscription fees for an Internet connection and a membership of Xbox Live and/or Playstation Network.²⁰⁰ On top of that, in the age of flow publishing, to fully experience a next-gen Triple-A game, a gamer has to be willing to extend his or her line of credit as PDLC has become a must.

A platform owner such as Microsoft has deep financial pockets and has been able and apparently willing to incur billion dollar losses on developing the Xbox brand. Similarly, consumers will not go broke by picking a mediocre game from the shelf. Triple-A game publishers on the other hand rely for a sizable part of their revenue on publishing next-gen console games and because of that they have created—and are sustaining—an increasingly volatile business environment. Drawing on Activision Blizzard and Electronic Arts as case studies, I will first briefly survey the endogenous and exogenous risks faced by said companies in order to prepare the ground for the final part of this chapter, which will discuss the extent to which game publishers' risk management strategies shape the Triple-A commodity form. The challenges faced by publishers range from macro-economic factors such as the international orientation of Triple-A publishing, to the persistent uncertainty associated with developing and manufacturing cultural commodities, for example the precarious status of cultural commodities as intellectual property.

200 With the exception of renting or lending a game. Still, both actions still require some type of investment, either monetary or social capital.

Triple-A game publishers have become transglobal businesses as they have offices around the world. As a result, doing business on a global scale introduced publishers to several structural macro-economic challenges. Electronic Arts' and Activision Blizzard's revenue is measured in U.S. dollars making the companies dependent on foreign currency exchange rates.²⁰¹ Another issue adding to the unpredictable nature of transglobal Triple-A publishing are general macro economic trends, such as the global economic and financial crisis affecting consumer spending, interest rates and the ability to attract investment capital. The cultural game industry has been all but immune to such international trends. The financial and economic crises happened to coincide with the crucial third and fourth year of the next-gen cycle. And even though game publishers openly plugged their business as being 'downturn resistant' because of the relatively strong value proposition offered by Triple-A games, declining revenues tell a different story.²⁰² While the initial U.S. sales figures of both computer and video games demonstrated spectacular growth, from seven billion dollars at the start of the cycle to \$11.7 billion three years later, the crisis did affect software sales figures as year-over-year revenue dropped from 10.6 in 2009 to 10 billion (Siwek, 2010).²⁰³

Compared to the start of the next-gen cycle, five years later the competitive outlook for game publishers looks grim. Apart from a healthy dose of inter-industry competition among rival Triple-A game publishers, external competition for a consumer's attention and revenue is on the rise; both from the world outside of gaming (e.g. social networking sites or online video hosting services), as well as inside, considering the diffusion of new game platforms (i.e. Apple's iDevices or Facebook games). Adding insult to injury, new platforms do not necessarily compete for discretionary income. As industry analysts from DFC Intelligence posit: "All the games combined on Facebook or Apple platforms can not yet equal the revenue

201 As explained in Activision Blizzard's 2009 Annual Report, some of these risks can be reduced: "We transact business in many different foreign currencies and may be exposed to financial market risk resulting from fluctuations in foreign currency exchange rates. Currency volatility is monitored frequently throughout the year. We enter into currency forward contracts and swaps with Vivendi, generally with maturities of twelve months or less, to mitigate our risk associated with our foreign currency exchange rate exposure resulting from our foreign currency denominated financial assets and liabilities (e.g. inter-company receivables and payables) and earnings" (Activision Blizzard, 2010: 29).

202 Triple-A multiplayer games offer tens or even hundreds of hours of entertainment compared to a much shorter visit to the box-office. Later during the crisis the Triple-A segment was confronted with the effects of the crisis as the sales of "packaged good" Triple-A titles began to slip. It must be said that lower retail sales are partially offset by digital revenue from paid-for DLC. The movie versus game value proposition argument popped up in an interview with Dutch industry veteran Jurrie Hoberg, see Nieborg, 2009.

203 Siwek's figures are based on figures from the NPD Group who track retail sales of PC and console games. Note that additional revenue streams stemming from paid-for DLC are not included in these figures. For both Activision Blizzard and Electronic Arts, revenues from the branched serialization strategy might not fully offset the overall decline in packaged goods. Yet they are significant and have a much higher profit margin. The 2009 and 2010 NPD figures are widely published online.

of one hit retail game” (DFC Intelligence, 2011).²⁰⁴ Rather, it is the constant fight for a consumer’s attention (cf. Davenport & Beck, 2001).²⁰⁵ Even if publishers are able to leverage new platforms to generate additional revenue, the initial price point of games for tablets and smartphones do not compare well against fully priced retail games. Publishers are forced to sell games which offer significantly lower revenue per unit compared to fully priced retail games, while the former line of games do offer significant entertainment value. To single out just one typical example, the iPad strategy game *iBomber Defense* (2011) published by EA subsidiary Chillingo offers tens of hours of game play for a mere 99 dollar cents.

Apart from generic and more sector specific macro-economic challenges, the flow publishing strategy and the Triple-A segment’s techno-economic logic signal a set of uncertainties that are typical for cultural commodity production and circulation. In the words of Christina Teipen (2008: 311): “The video game industry is faced with highly insecure market success, long product development times and costs as well as perishable products”. Focusing on the core business model underlying the unfinished commodity, one can discern two overlapping risks for game publishers. First, one of the notable properties of the video game in its commodity form is that of the high up front investments and subsequent low reproduction costs (Hesmondhalgh, 2007; Kerr, 2006). Apart from design challenges, the transition to the HD era directly affected the size of game production budgets. Consider the development costs of *Grand Theft Auto IV*, a reported hundred million dollar, *Too Human* (2008) \$80 million, *Halo 3* thirty million, and *Metal Gear Solid 4: Guns of the Patriots* (2008) which cost \$50 million to develop (Brightman, 2009). In comparison, analysts Pachter and Woo (2009: 103) estimate that on average a sixth generation title costs \$2.5 to \$4 million to develop. And second, there is the Triple-A segments singular business model which lacks the elastic pricing options seen in other hardware platforms; it also lacks the diversified revenue streams or monetization options found in other industry segments.

For example, publishers of books, movies, songs and games have institutionalized a series of coping mechanisms to reduce risks to a minimum (Garvin, 1981). Many of these mechanisms are different in each industry segment. For instance, record companies and book

204 In terms of margins, digital distribution is far more lucrative compared to the packaged goods model. Activision Blizzard CEO Kotick (2009) explained investors that whereas the former model has a 25 to 30% operating margin, a subscription based title such as *World of Warcraft* is nearing 50%.

205 The profile of a typical American consumer by media Research company Nielsen illustrates this point. Increasingly, time is spend on freely accessible online social networks and online games (i.e. non Triple-A games); both are growth categories whose time share is rising fast, together taking up a third of all time spend online: “Despite the almost unlimited nature of what you can do on the web, 40 percent of U.S. online time is spent on just three activities – social networking, playing games and emailing leaving a whole lot of other sectors fighting for a declining share of the online pie,” according to Nielsen analyst Dave Martin” (Nielsen, 2010).

publishers typically engage in overproduction, which is a “rational organizational response in an environment of low capital investments and demand uncertainty” (Hirsch, 1972: 652). While there is demand uncertainty in the Triple-A segment as well, capital investments are rather high. Game publishers do not have the luxury of a scattershot approach and have to play it safe. Triple-A games are impact-upon-release products and not only did games, up until the advent of the branched serialization format have a fairly short life cycle, they typically have one life.

Looking at recent political economic analysis of Hollywood movie production it becomes clear that not only do various sectors in the core cultural industry employ different risk management strategies; in comparison to the film commodity, the Triple-A commodity's singular revenue stream (i.e. the one time sale of physical commodities) also turns next-gen video game publishing into a relatively perilous affair. In the case of Hollywood film production, film scholar Janet Wasko (2003, 2005) questions the 'risky business' mantra (e.g. Prindle, 1993) by pointing toward the many ways in which movie production and promotion is comparable to other industry segments beyond the cultural industries in terms of risks. In addition, while there generally is a lot of money at stake in Hollywood blockbuster production, Wasko argues that there are several presumptions about the inherent risks of producing Hollywood blockbuster movies, which put the notion of a risky business into perspective.²⁰⁶

If we look at the commonly held beliefs concerning Hollywood's singular revenue stream it becomes apparent that Triple-A game publishers face considerable challenges to build a sustainable business and remain, or even become, profitable. One commonly held assumption about the presumed high-risk nature of movie production is partly a result of the way in which entertainment journalism looks at box-office revenues to declare a blockbuster movie a hit or miss, and thereby define it profitable or unprofitable.²⁰⁷ Simply put, there are various strategies for movie studios to diversify revenue streams via textual repetition—selling movies to cable outlets, airlines or pay-per-view channels—and as a result: “For the film industry, more distribution outlets have translated into less risk” (Wasko, 2005: 16). In his comparison of box-office revenue versus VHS and DVD sales and rentals, media economist

206 Ironically, much of the risk “has been introduced and sustained by the industry itself” (Wasko, 2005: 15). That is, consumers or film critics do not demand bigger budgets, yet they keep on growing.

207 Apart from methodological issues encountered by critics and journalists, the business models and revenue streams of major film studios are much more diverse compared to the Triple-A segment. There are two methodological challenges that make the seemingly easy question of profitability much more complex. First, the exact amount of net income generated by blockbuster movies is hard to measure in conglomerates such as Vivendi Universal, Sony and Disney, where the income of movies is generated indirectly through synergy and licensing. Second, there is the cultural industries' taciturn and secretive posture, especially toward academics. In practice Hollywood production continues to be (highly) profitable.

Weinberg (2005, cf. Skopal, 2007) concurs and shows that the latter market of “ancillary products” is far more substantial than the revenue generated from people going to the movie theater. This revenue diversification strategy is deployed quite successfully in the US television industry as well (Kompare, 2005).

Conversely, as we have seen in chapter 2 and 3, the Triple-A segment's flow publishing logic corresponds with a revenue model which, in opposition to Hollywood's diversified revenue streams, is rather straight-forward: online or offline retail outlets sell boxed copies of heavily marketed console games.²⁰⁸ The flow publishing logic signals the extension of the Triple-A value chain through additional offerings. Even though revenue diversification via textual repetition or via the sale of ancillary products does occur, in terms of revenue it dwarfs in comparison to a publisher's core publishing activities, which are very, much packaged good and hit-driven.²⁰⁹ Compared to movies, one techno-economic property preventing a more diversified revenue stream is the platform dependency of the console game. While game related intellectual property can be reused and recycled—for example the licensing of the *Halo* or *Call of Duty* trademark—the money spent on the development of a console game is a sunken cost. Without an Xbox 360 it is impossible to play *Halo 3*, which makes recycling content, for example the ability to play *Halo 3* in an airplane without an Xbox 360, all the more challenging.

Considering the high risk of failure that accompanies the development and publishing of economically viable Triple-A games, one wonders who would want to take such risks? The simple answer is, of course, it still pays off. For stockholders the blockbuster investment logic is one which could be summarized as 'high risk, high return'. A hit can be turned into a franchise with growth potential, leading to more predictable sales and a significant return on investment. Game publishers are eager to convince shareholders in their annual reviews of the validity of their investment. Consider, for example, one of the opening statements in the Annual Review of the publicly traded game publisher Activision:

Fiscal 2008 was an extraordinary year for Activision shareholders. The strength of our

208 Looking at the product portfolio and revenue streams of Triple-A publishers, it becomes clear that revenue is generated either from distribution (for example in the case of Electronic Arts which markets and distributes games for MTV Games, Valve Inc, Crytek and others), directly selling games (often referred to as “product sales” or simply “publishing”), and revenues from digital distribution (subscriptions, paid-for downloadable content, microtransactions, in-game advertisement). For example, for Electronic Arts the more profitable revenue stream of digital distribution has been growing rapidly as of the start of the seventh cycle, although 75% of the digital revenue stems from non-Triple-A titles (Electronic Arts, 2011).

209 Triple-A games are reissued and ancillary products (e.g. cheat guides, cf. Consalvo, 2007) do generate revenue either directly or indirectly. But the revenue generated of, what publishers call “catalogue sales” is a small percentage of a publisher’s annual revenue.

product portfolio, coupled with superb execution across all of our businesses, resulted in our 16th consecutive year of revenue growth and the best year in our company's history. Over the past five years, we had a cumulative average growth rate in our share price of 50% per year and more than 30% per year over the past 10 years (Activision Blizzard, 2008: 10).

Next I will argue that game publishers aim to create an environment in which high risks are transformed into a controlled gamble. The flow publishing strategy is as much about control as it is about standardization and predictability. The franchising and branched serialization formats, then, are inherent with a rationalized mode of production and a standardized commodity form.

8.3 The rationalization of cultural production and circulation

One way to trace back the risks inherent to the process of the commodification of culture is to unpack the Triple-A commodity itself. This book will end at the point where Marx ([1867]1999: 13) started his treatise on Capital: “The wealth of those societies in which the capitalist mode of production prevails, presents itself as ‘an immense accumulation of commodities’, its unit being a single commodity. Our investigation must therefore begin with the analysis of a commodity”. As Mosco (2009: 130) explains, Marx then “peels back the onion skin of the commodity’s appearance” revealing a system of production. Similar to the non-cultural commodities described by Marx, the Triple-A game as a cultural commodity “objectifies exploitative social relations” (ibid: 131; cf. Dyer-Witheford & De Peuter, 2009, 35-68). Taking the commodity form as the focal point of my analysis, it becomes apparent that the game industry’s constant struggle to prevent and avoid the numerous risks inherent to capitalist cultural production leads to a standardized commodity form. The next-gen Triple-A game is, as I explained in this chapter, best described as an unfinished commodity.

As a result, today’s development practices have become profoundly rationalized while the video game publishing business in general is many times more capital intensive than ever before in its history (Dymek, 2010; Tschang, 2005; Tschang & Szczypula, 2006; Tschang, 2007), particularly compared to the early days of publishing console games—the days of the Atari VCS in the late seventies (Montfort & Bogost, 2009). The recurrent cycles of innovation of hardware platforms affect all aspects of the Triple-A game’s political economy: “From the formalization of development methodologies to the conservatism of publishers and the marginalization of the small developers, let alone lone coder, the consequences of both technological and institutional change are considerable” (Newman, 2004: 47). The rise of new business models, like the flow publishing strategy, demonstrate the resilience of a capital-intensive, for-profit modality of cultural production mixing a twentieth century investment logic with twenty-first century technological affordances such as digital distribution. The unfinished commodity form, then, is an example of how cultural commodities are constantly repositioned and continuously altered during subsequent console cycles. But while the game industry has smoothly altered the Triple-A commodity form over time, still underlying the commodity are a wide range of explicit and implicit techno-economic standards, rules and regulations. Before arguing why the Triple-A game is a standardized commodity form by reflecting on the implications of the process of commodification I will turn to the technological continuities structuring the Triple-A game’s production, circulation and commodity form.

The Triple-A game is by definition always a highly standardized piece of software. As argued in chapter 6, the console game is tied to a standardized hardware platform that translates into various technological requirements and game design constraints. The Xbox 360, for example, uses the DVD format that limits the maximum game size to 8.54 Gigabytes, while the built-in Blu-ray drive of the Playstation 3 is able to read 50 Gigabyte discs. Second, a more arbitrary but equally restrictive instance of the way in which a hardware platform guides technological standardization and thus game development are the rules outlined by platform owners. As I noted in chapter 5, platform owners enforce intricate TRCs (Technical Requirements Checklists) that apply to all Triple-A games published on next-gen platform.

The hardware dependency of the next-gen console game leaves its mark on the nature of game design:

It is possible to argue that the adoption of the platform model stifles the creativity of games designers in forcing them to utilize standard hardware devices and software tools and that games may be, first and foremost, designed to suit the capabilities and strengths of the system rather than game designs preceding and dictating technical implementation (Newman, 2004: 44-45).

As such, technological standardization aids, eases and from a game publisher's perspective necessitates, the reuse of game technology. Structured and constrained by the possibilities of hardware platforms are so called 'game engines' which operate on top of game hardware acting as standardized software platforms. The game engine is the core piece of game software and consists of several components such as the renderer that visualizes the game space, a physics engine, networking code, artificial intelligence code, a sound system and other parts.²¹⁰ A game's commodity form, Bogost (2006: 66) explains, shares the material, functional, and intellectual proprietary attributes of the core engine: "These confines both facilitate and limit discursive production, just as the rules of natural languages bound poetry and the rules of optics bound photography".²¹¹ Similarly, Dovey and Kennedy (2006: 57) see the game engine as "a technologically determining agent in the character of computer games; game engines are not infinitely adaptable or 'content neutral'". The game engine offers developers a proprietary

210 Software engines, including game engines, commonly are easily upgradeable, adaptable, modular, scalable and reusable. The popularity of game engine technology is a result of the development of the first first-person shooters (cf. Kushner, 2003). An important aspect of a game engine is that the engine's software and the game's content, such as graphics material, are split up. Engines are purposefully modular in design so that it enables upgrading particular engine parts without 'breaking the code' or for third parties to develop plug-ins, 'sub-engines' if you wish, to offload complex software routines.

211 The application of game engines and their wider function within game development is seldom acknowledged by game scholars. Out of a handful of scholars, Bogost (2006: 57) emphasizes the important role of game engines as component based software systems within the wider game industry as they: "[...] construe entire gameplay behaviors, facilitating functional interactions divorced from individual games".

development platform, which further limits the game developer's design capabilities, standardizing the console game.

The ever-rising costs of game development necessitates the development of in-house game engines or has publishers to opt for licensing engine technology.²¹² Because of their complexity and technological sophistication, game engines are brought about by multi-million dollar investments by game publishers or specialized developers and are considered valuable, proprietary technology: "Like component software, game engines are IP" (Bogost, 2006: 56).²¹³ Engine development is iterative and has an ongoing development cycle where there is constant tweaking and updating. Just as games have sequels, so do engines. For example, the version of the popular Unreal engine used during the next-gen era is referred to as the Unreal Engine 3.0. Software engines save engine licensees time and "should allow developers to focus on innovation instead of mechanics" (Bogost, 2006: 60). On top of that, furthering the standardization of the Triple-A commodity form is the fact that game engines are commonly reused. The proprietary game engine used for next-gen installments of *Call of Duty* games are all updated versions of the "IW engine" which is originally based on engine code developed by id Software and then licensed to Activision (Stead, 2009).²¹⁴ Over time the IW engine has been significantly altered and enhanced; for example *Call of Duty 4: Modern Warfare* added an enhanced physics engine while later versions saw improvements in lighting, artificial intelligence, and so called 'streaming texture techniques' to allow for bigger game worlds. As Bissell (2010) remarked in the opening of this chapter and as any gamer can attest, the look, feel and overall game design of the next-gen *Call of Duty* games is rather homogeneous because of the use of a standardized software platform.

The implications of commodification

Drawing on Marxist theory, political economists theorize the capitalist mode of cultural production by noting that a cultural commodity's exchange value takes precedence over its use

212 Note that game development is to a large extent bound by the engine's internal logic, which is operationalized through its proprietary toolkit. To unlock the engine's possibilities a set of tools is required that are inherently part of the engine. In addition, many third party toolsets such as graphics editors and 3D modeling software have their own plug-ins to interface with popular engines.

213 Independent development powerhouses such as Valve Inc., developing the Source engine, and Epic Games (Unreal engine) purposely specialize in high risk, capital-intensive game engine development and licensing.

214 To be exact, the "IW engine" is used for *Call of Duty 2*, *Call of Duty 4: Modern Warfare*, *Call of Duty: World at War*, *Quantum of Solace* (2008), *Call of Duty: Modern Warfare 2*.

value as a work of art (Kerr, 2006; Mosco, 2009). This process is anything but unique to games. What sets the Triple-A apart from, for example, movies or music is the Triple-A segment's techno-economic logic. Yet, the reason that I have stressed the continuity of the process of commodification and spatialization is because the technology driven standardization of the Triple-A game, for example in the case of standardized engine technology, is embedded in a capitalist mode of production. While at the surface the cultural game industry may seem highly innovative, at least on a technological level, its structuring process and the way in which limits are set by game publishers, can be best understood through stressing the political economic continuities underlying the Triple-A segment.

So how do these continuities manifest themselves when considering the Triple-A commodity form? Inherent to the process of commodification is that managerial decisions made by game publisher executives are guided by the value of a Triple-A game as set by the market; its exchange value. Strategic decisions by publishers, then, lead to a series of rationalization strategies guiding the production and circulation of cultural commodities. That is to say, beholden to a for-profit agenda which at all times seeks growth, game publishers are boxed in by the market—the actions of competitors, the expectations of consumers and critics mixed with pressures from stockholders and industrial actors along the value chain—as to what kind of Triple-A games to develop, when to release them and how to market them. It is the game publisher's primary task, then, to manage risks, to generate surplus value—profit—by the strategic exploitation of intellectual property and to do so in a steady and preferably predictable manner.

Predictability in the cultural industries, however, is a double-edged sword. Publishing Triple-A games means constantly oscillating between exploitation and experimentation. On the one hand, game publishers opt for various ways to breed familiarity and keep players engaged with carefully crafted game brands. To achieve this goal game publishers follow two complementary strategies, which by now may sound familiar. One is to build a catalogue of Triple-A games consisting of familiar genres, the other is to serialize content. Chapter 2 already deconstructed the latter method that is the flow publishing logic consisting of the two formatting strategies of franchising and branched serialization. The implications of the former strategy, the “dialectic of the hit and the catalogue” (Miège, 1989: 43), will be briefly discussed later in this section. On the other hand, the contradiction underlying all cultural commodities is that: “[...] its uniqueness and originality are undone by reproduction, familiarity and over-exposure” (Ryan, 1991: 54). In comparison to non-cultural commodities, once a Triple-A game is out on the market its value decreases rapidly. Despite the non-rival character of a cultural commodity (cf. Benkler, 2006), there is no escape from the pattern of decline, in terms of use

value, in the cultural commodity's life cycle. As a result, game developers and publishers are locked-in a continuous research and development cycle as hardware platforms continually evolve and competitors (re)act accordingly. In order for a game publisher to remain profitable there must be constant investment in new tools and technology, as well as in fresh input (knowledge) and highly skilled labor (Deuze et al, 2007).

To be profitable in the next-gen era, a game publisher has to show tremendous restraint in the number of games a company releases and the publisher has to be highly disciplined in managing its portfolio. Recall Electronic Arts' "fewer, bigger, better" strategy. At the same time, relying too much on a publisher's existing portfolio and gamers might grow tired with the same old game. The balancing act of diversification versus standardization and of rationalization versus innovation, harks back to the classical argument of creativity versus capital and of art versus commerce, a theme that is at the root of the notion of (the) Culture Industry (Hesmondhalgh, 2007; Steinert, 2003). Jumpstarting the debate on the implications of the commodification of culture were scholars such as Adorno and Horkheimer ([1944]1998) and Benjamin (1936). They were among the first to draw attention to the capitalistic tendency of consolidation and the concentration of corporate ownership and how these issues relate to the production and circulation of culture. The concept of the Culture Industry was ultimately shaped by the ongoing process of corporate clustering during the post-war era which featured the rise of media conglomerates, many of which would grow exponentially during the process of further deregulation and rapid globalization in the decades to come. In the end the goal of oligopolistic media moguls is the same as is in other consolidated industry segments; the avoidance of risk through product standardization coupled with ferocious marketing and PR efforts (Bagdikian, 2004; Bettig and Hall, 2003; Bustamente, 2004; Meehan, 2005). As argued throughout this book, the concentration of ownership and capital is particularly strong in the Triple-A segment.

It is the culture industry's homogeneous and confirmatory tendency against which Horkheimer and Adorno aim their most outspoken criticism at. The overall tone used to lay out the Culture Industry thesis was characterized by rather unconventional rhetorical devices such as exaggeration, ellipses and provocation (Günster, 2000, 2004). This, and the underlying normative quality of the notion of Culture Industry, made many a media scholar critique or even dismiss the overall argument as being elitist, deterministic, negative and reductionistic, preventing the widespread adoption and application of critical theory (e.g. Holt, 2009; Miège, 1989). That said, the perspective as well as the intellectual challenges put forward by the Frankfurt School are still highly relevant today since contemporary cultural production is: "[...] more commodified and commercialized than ever and so the Frankfurt school perspectives on

commodification are obviously still of fundamental importance in theorizing our current situation” (Kellner, 2002: 41). As such, the value of critical theory lies in the fact that it allows for a rethinking of positivist research paradigms such as media economics and helps to guide a critical perspective on the interplay between technology, culture and economics.²¹⁵ Exactly by theorizing movies and music as cultural commodities, rather than as mere cultural artifacts, early industry critics paved the way for contemporary critical political economy and influenced countless critical scholars.

As Adorno explains (1991: 100), the notion of an industry is primarily meant to draw attention to “the standardization of the thing itself”, and to “the rationalization of the distribution techniques”. Drawing on critical theory and critical political economy, Ryan furthers the core of Adorno's argument by theorizing the institutional conditions constituting the production and circulation of culture. He replaces the concept of Culture Industry with the notion of “corporations of culture” and takes the dichotomy between the formalized and the rational economic process of cultural production and the creative and irrational process of artistic labor as a starting point to provide an empirically grounded understanding of contemporary capitalist cultural production. Before relating Ryan's valuable insights into the unfinished commodity form, I will briefly offer the theoretical foundation of his argument.

In his book *Making Capital from Culture: The Corporate Form of Capitalist Cultural Production* (1991) Ryan argues that capitalist mode of cultural production brings with it a set of contradictions. First there is the art/capital, or artist/capitalist contradiction, which signals the constant back and forth between the organic, irrational practice of creativity—the artistic—and rational economic processes. On the one hand, artists (game developers) are granted “relative autonomy” in the capitalist labor process, meaning that within a social context they are allowed to “exercise their individual talents, to let their imaginations run freely in the search for expressive truth” (1991: 46).²¹⁶ On the other hand, those who finance game production are confronted with the “economic irrationality of the creative process” as the labour of talented game developers requires significant investments while at the same time the creative process, being fueled by nothing but inspiration, is inherently unreliable (1991: 48-

215 The work of Horkheimer and Adorno, however, was not meant as an empirical investigation of the status of production and consumption in the post-war era but rather a philosophical exercise: “[...] we must never lose sight of the fact that the often brilliant, sometimes elitist, and always provocative comments of critical theory on mass culture should not be understood as a totalizing indictment but as the exploration of certain tendencies within 'reality'” (Günster, 2000: 66).

216 Following game designer Jesse Schell (2008: xxv), I use the term “game developer” to refer to “anyone who has any involvement with the creation of the game at all”. Those professions include engineers, animators, modelers, musicians, writers, and designers and all qualify as, I would say, artists. Ryan makes an important distinction between the different roles of members of the project team, particularly between creative managers and artists.

49).

A second contradiction constituting the cultural commodity is the notion, as Walter Benjamin famously noted, that a work of art has an aura of uniqueness. That is to say, in order to appeal to an audience a work of art must be original. Ryan (1991: 51) relates this to Marxian theory and notes that a work of art as a cultural object derives its use value—“the socially constituted characteristics and capacities of an object”—from its singularity and originality. Yet, in its commodity form the use value of artistic objects is undermined by its exchange value: “Under the logic of repetition underlying publicity and popularity, the special characteristics the cultural object initially possessed are systematically undermined by its very success in exchange” (1991: 54). That is to say, the moment a mass marketed cultural commodity, such as a Triple-A game, is ubiquitously available, its newness and freshness declines.

The value of Ryan's work lies in his detailed analysis of how corporations of cultures, such as game publishers, counter this set of contradictions. In general terms, publishers are constantly deploying and refining strategies and business practices which are aimed at predictability to ensure constant revenue streams as well as growth. Similar to Triple-A game development, as political economist Prindle (1993: 5) notes in his study of Hollywood movie production, film studios are constantly trying to “replicate the unreplicable”. While consumers exhibit highly unstable taste patterns, at the same time they value “familiar plots, characters, and morals over more artistically innovative fare” (ibid: 25). Ryan (1991: 58) comes to a similar conclusion but also adds that cultural commodities, and this goes particularly for hits, have a truncated product life cycle therefore necessitating “recurrent production” to guarantee the constant flow of sales. The goal of game publishers and film studios trying to replicate the unreplicable, or rather build on previous successes and hits, guides design decisions, which commonly err on the side of caution.

The crux of Ryan's (1991: 150) argument is the fact that the creative stage of cultural production is formatted, meaning: “Creative work is preformed to a management plan. Specific, fixed cultural rules are formulated as company policy by its creative managers and applied to members of the project team”. In this instance, the project team consists of the game developers working in game studios. To counter the risks posed by the “mental machinery” young, imaginative knowledge workers bring along, game publishers have put into place a system of managerial control (Dyer-Witheford & De Peuter, 2009: 35-68; cf.

Gershenfeld et al., 2003; Pausch, 2004).²¹⁷ To be sure, the formatting strategy is not beholden to the Triple-A segment. In his reading of the Culture Industry thesis, Kellner (2002: 47) stresses the wider cultural industries' reliance on formats: "Film, television, popular music, and other genres of media culture are highly codified into systems of commercial enterprise, organized in accordance with highly conventional codes and formulas." As for the next-gen Triple-A game, the unfinished commodity form acts as a "system of control", steering the game designer "towards repetition of the particular cultural forms in which companies have invested" (Ryan, 1991: 178). In practice, variation on a theme, or what Ryan calls "type-based" products, far outstrip wholly original themes, narratives, and gameplay mechanics. This is not to say that game design is an uncreative, mindless practice. Congruent with the contradiction underlying the cultural commodity, the operational side of cultural production is relatively open and creative managers (studio heads, producers, publisher executives) do not stand looking over the shoulder of individual artists telling them how to work their magic.

In short, the formatting strategy is not so much leveraged by the game publisher on the operational level but on the strategic level by setting limits as to what to develop and by setting "specifications for the project team even before a single original is created" (ibid: 171). In sum, formatting is a fluid system "wherein commercialism determines creative policy which directs the project team towards predictable marketable outcomes" (ibid). Following critical theory and critical political economy, the serialization strategy underlying the game franchise is a dominant strategy and should be seen as the epitome of conformity and standardization.

Marketing and cataloguing

Next to technological standardization and formatting the creative stage of cultural production, there are two complementary and overlapping publishing practices which further standardize the Triple-A commodity form and which are commonly drawn upon by next-gen publishers. First there is the rationalization of circulation—Triple-A games are heavily marketed—and, second, Triple-A games are developed in such a way as to fit neatly into a publisher's catalogue. Similar to the formatting strategy, the ubiquitous business practices of marketing

217 Electronic Arts executive Frank Gibeau explains this tension in an interview: "Development people are unique and special. Publishers have to recognise that, and they need to put them in a situation that fosters their creativity, allowing them to take risks, and providing support where need be. But ultimately publishing owns the strategy to generate demand—how to get people excited by the game, and what price and retail strategy you come to. I like to have a tension between the two, in a kind of check and balance system" (Crossley, 2010).

and cataloguing provide the project team with additional design limitations. As discussed in chapter 5.3, the “publicity complex” has a crucial role in marketing blockbuster games (Ryan, 1991; cf. Hirsch, 1972; Carlson, 2009; Consalvo, 2007). Yet, marketing and PR should be understood as encompassing a complex set of practices including “research, product planning and design, packaging, publicity and promotion, pricing policy, and sales and distribution” (Ryan, 1991: 186). While advertising, publicity and promotion are the most visible and well-known instances of marketing and PR, it is through research, product planning and design that the creative stage as well as the cultural marketplace are rationalized.

Marketing and the flow publishing logic reinforce each other and aim to discipline the market, add a layer of predictability and lower risks:

Sequels have intrinsically lower market risk than unknown titles due to the higher level of brand/title recognition. The curiosity raised by the sequels provides sufficient marketing impetus that reduces the risk by providing a certain level of sales which cannot be presumed in the case of unknown original titles (Dymek, 2010: 95).

Many Triple-A games have been audited by a test audience long before they go into production, a practice which Horkheimer and Adorno found fault with in a vehement manner: “Marked differentiations such as those of A and B films, or of stories in magazines in different price ranges, depend not so much on subject matter as on classifying, organizing, and labeling consumers. Something is provided for all so that none may escape; the distinctions are emphasized and extended” (Horkheimer & Adorno, 1993: 32). For example, a considerable number of Triple-A games are solely commissioned as add-ons to blockbuster films serving as marketing vehicles for movie productions (Brookey, 2010). Kline et al (2003: 220) agree with the tenets of Ryan's critique of the cultural commodity: “[...] considerations of branding and synergistic marketing enter into the very conception of game design, as the production of blockbuster hits become a priority. As the 'digital design' of games becomes increasingly governed by strategic marketing, the diversity of audiences and the creativity of game content seem to diminish”. The publicity complex, then, puts additional limitations to the work of Triple-A game developers.

Lastly, as Ryan notes, the logic of repetition guiding formatting is further operationalized through “type-based creative policies”, or cataloguing (1991: 158). Activision Blizzard, for example, relies heavily on a very small number of hits: “[...] our top three franchises, *Call of Duty*, *Guitar Hero*, and *World of Warcraft*, accounted for approximately 68% of our net revenues for the year ended December 31, 2009” (2010: 4). As Ryan pointed out, the contradiction underlying the cultural commodity does mean that such a heavy reliance on

such a small product slate introduces new risks as much as it avoids others. Yet, these conservative strategies permeate the Triple-A publishing business. There are certain game titles that have 'all bases covered'; that is, they are assured of a “built-in” audience, that is familiar with previous iterations of a title. Genre has an important signaling function, similar to film, but at the same time seems to be more rigid in the Triple-A segment.

The catalogue of a game publisher looks very much like a bingo chart to be filled with at least one action-game, a first person shooter, a racing game, sports games, and a music game, or a variation thereof.²¹⁸ In the end, the strategy of cataloguing offers a formidable, self-enforced straight jacket for publishers. Activision Blizzard's next-gen publishing strategy fully internalized the flow publishing logic as a formatting strategy and heavily markets its small catalogue. More so than arguably any other publisher in the Triple-A segment, Activision Blizzard rationalized every single aspect of a game's development and circulation. Before discussing the implications of the commodification of culture, I will briefly illustrate this point.

First, the publisher focuses explicitly on “proven strategies” which means that rather than developing and publishing original intellectual property the publisher focuses on the largest market in order to expand its margins by “growing recurring franchises” (Kotick et al., 2007). In a conference call with analysts from major investment companies, Kotick succinctly summarized the political economy of franchising: “[...] I think one of the great benefits of having a portfolio with 10 multi-million unit selling franchises is that you can expect virtually every one of those properties will be exploited on an annual or close to annual basis” (ibid.). Launching a Triple-A game based on original intellectual property has always been a challenge. Kotick (2009): “The single hardest thing to do in the video game business is to introduce original IP and that is why it does not happen very often”. The majority of wholly original Triple-A games sold do not break even and are, generally, not nearly as profitable as franchises that were built up over time.

Second, in the rare case a new property is launched, it neatly falls within a well-defined genre and fills an open slot in the publisher's catalogue. How cataloguing ties into the rationalization of production and circulation is explained by Activision Blizzard Chief Financial Officer Thomas Tipl: “We constantly evaluate our plate as part of our three-year planning process and decide which market segment we want to participate in, where we have a consumer-proven concept, [and] great development talent that can deliver those concepts”

218 Increasingly, the portfolio driven approach to publishing often forgoes genrification and aims to develop brands rather than using genre to pre-sell and market commodities. For example, in the endless stream of marketing material of Triple-A games, such as *Call of Duty* or *Guitar Hero*, the game brand itself is promoted rather than falling back on genre descriptors as a sandbox game, first person shooter or music game.

(Tippl et al., 2010). Genres, in this instance, are seen as clearly defined markets with their own demographic and potential revenue. It is the publisher's task, then, to (re)capture as much market share in a genre as possible and find a development studio, preferably an in-house one, to work on a concept. As Activision Blizzard's 'slate' lacked a solid non first person shooter, it published *Prototype* mid-season 2009. Ironically, the game competed head-to-head with *Infamous* (2009), Sony's mid-season attempt to capture the open-world super hero genre. Desperately seeking out a hit game to fill the summer revenue void, Activision made two similar attempts with the first person shooter *Singularity* (2010) and the racing game *Blur* (2010). Both games fell short of (revenue) expectations, leading to the closure of *Blur*'s development studio Bizarre Creations and *Singularity*'s developers mandated to work on the *Call of Duty* franchise.

The third instance of how Activision Blizzard standardizes the Triple-A game is by selected experimentation within brands coupled with a disciplined publishing schedule. Franchises are developed with serialization in mind and are preferably spun-off into infinity. Additional installments in a franchise follow the routine of a 'variation on a theme', aiming to extend consumption as well as to broaden the market. The 'Hero' music franchise is an example of how marketing practices such as audience research and segmentation rationalize the marketplace as well as the development of individual installments. Consider Activision's 2009 publishing slate for the franchise consisting of the September release of *Guitar Hero 5* (2009), targeting "the rock-focused music gamer", the October release of *DJ Hero* (2009), aimed at "club dance" enthusiasts, and the November release of the pop music focused *Band Hero* (2009) "which should appeal to a family audience".²¹⁹ In terms of game design, a franchise means tweaking, upgrading, gradual refinement and minor innovations, rather than starting from scratch.

Economists, both from the neo-classical and the critical political bent, agree on the ubiquity of the generic blockbuster form (bestseller books, hit songs, movie blockbusters and Triple-A games) as heavily marketed cultural commodities sharing a set of common properties. David Garvin (1981) argues that firms within the cultural industries combine three overlapping rationalization strategies as a form of self-insurance: "pre-release advertising", the use of

219 Michael J. Griffith, heading the Activision publishing branch at the time explains: "One of our main goals for the franchise this holiday was better product differentiation to limit retail and consumer confusion, and this holiday our three major releases are well-differentiated. The release dates are spread apart and all three target a different consumer and each is sold with its own unique set of peripherals." (Tippl et al., 2010).

“already proven stories” and of “well-known performers”.²²⁰ Three decades later, these strategies have not lost any of their luster. For one thing, in order to differentiate commodities as well as raising awareness among prospective consumers, cultural commodities are as heavily marketed as ever (Cucco, 2009; Hirsch, 1972; Kline et al., 2003; Wyatt, 1994). The latter two strategies, particularly the strategy to follow up on previous successes (either stars, stories, or previous installments in a series) should be seen, as Garvin (1981: 11) argues, as a “conservative strategy”, “one with limited downside risk but offering few opportunities for large returns on investments”. I would argue that Triple-A publishers not only fully internalized these generic strategies, but have given them a medium specific twist by leveraging standardized technology, by institutionalizing the flow publishing logic and the cataloguing strategy.

It might come as no surprise that political economists lament the conservative and mandated approach to game development, especially because rationalization strategies such as the flow publishing logic quite rapidly and without much opposition became taken-for-granted by consumers and critics. The neo-classical economic perspective on this issue is to argue that this is primarily an economic problem of supply and demand. Exactly because the value proposition of a typical next-gen blockbuster game concerns attributes such as quality and functionality, the investments from game publishers for each single title are massive by definition. As argued in chapter 4 and 5, Triple-A game publishers inhabit a central position in the game value chain and therefore they face considerable structural challenges threatening their ability to generate a profit. Compared to retailers or the more diversified revenue stream of platform owners, game publishers are confronted with significant monetary risks, while a large piece of the revenue pie is eaten by all parties but the game publisher.

However, by accepting the current status quo and by taking the current mode of Triple-A production at face value, one overlooks the political and ideological implications of this particular economic arrangement. Next to considering what is developed, it is equally relevant to recognize what is not developed:

This path to an authentic ‘clone culture’ which replicates past successes can only

220 Again taking cues from political economic analysis on the movie industry film scholars argue that film studios try to eliminate uncertainty: “in various ways—by focussing on blockbusters featuring well-known stars and/or by basing films on already—recognizable stories and character” (Wasko, 2003: 55). This view is confirmed by the work of media economist Ravid (2005) who gives us a further breakdown of the effectiveness (i.e. profitability) of the use of movie stars in big-budget movies. Ravid’s (2005: 42) research shows that the use of stars does not so much contribute to profitability as they are best interpreted as “sub-optimal risk-management strategies by extremely risk-averse executives”. If failure aversion is what drives strategic management in blockbuster movie production, than that would explain the pervasive use of stars, genres and serialization in the movie business.

increasingly standardize the production for and consumption by majorities, punishing innovative or minority creativity, that of small and medium enterprises, and linguistic and cultural minorities, thereby jeopardizing the overall ecology of each sector (Bustamente, 2004: 804-5).

Similarly, White (2009: 2-3) laments the “stagnation of creativity within the game industry” exactly because of the combination of a risk-averse and for-profit agenda: “In producing derivative sequels and game clones, individual market entities with the power and capital to innovate often engage in economic rent-seeking behaviour”.²²¹ One obvious implication of the current dominant mode of Triple-A game production and distribution is the “fewer, bigger, better” strategy adopted by the major game publishers during the next-gen cycle. The underlying rationale behind the unfinished commodity form is to own franchises that can act as a technological, legal (IP) and marketing platform positioned for future growth. Within an industry that already manages its catalogue with an iron fist, the proposed streamlining strategy does not bode well for those looking for original productions outside of the rigid framework of popular game genres (i.e. action, race and sports games).

Over the years, the Triple-A commodity form has emerged as a rather homogenous cultural form. This partly has to do with the standardized nature of game consoles. Platform owners, directly and indirectly, define many of the legal, technological, economic and aesthetic properties of next-gen games. But more than anything else, all boxed copies of next-gen games sold in retail stores are positioned by their publishers to be hits, and hits only. As a result, the next-gen incarnation of the boxed retail game has to sell a minimum number of copies, which in a growing number of projects, is well over a million units. And thus, the stakes are too high, the budgets too big, to develop, distribute and market a blockbuster game that deviates from the path set out at the start of the new cycle.

In sum, one of the most apparent, most visible effects of the commodification of content, coupled onto the concentration in ownership, is the decreasing diversity in game content. The flow publishing logic is a powerful illustration of the game publisher's risk averse nature coupled onto a for-profit agenda. Despite its innovative technological character and the pleasure it grants to millions of players, the franchising strategy favors the continuity of formulaic themes, technology and, arguably, generic content. Political economy is normative in the sense that it strives for more open and diverse offerings. Rather than concentrating on resistance to dominant media, it highlights potential divergence by explaining and deconstructing the status quo and the cultural game industry's structural and institutional

221 Adding: “In this context, rent is defined as '[...] higher profit or income than would occur under normal market conditions' (McConnell, Brue & Campbell 2004, p. 341)”.

logic. In this book that would be the nature of the unfinished commodity and the logic of flow publishing, which continuously reaffirm the status quo. What is crucial to understand about the process of commodification is that it is a process of power which is not only self-sustaining but also has the potential to obscure alternative power arrangements as the logic of commodification can be perceived as: “the natural order, common-sense, take-for-granted, reality of social life” (Mosco, 1996: 154). While it is understandable for game publishers to choose capital over creativity, and homogeneity in content over diversity, acknowledging this for-profit imperative and (unpacking the) commodity form should be part of the conversation on video games, not a taboo, an implicit assumption or a bore.

Conclusion

The sustainability of the next-gen modality of blockbuster production is increasingly questioned, in part because of the rapid diffusion of new game platforms such as the tablet, the smartphone and online social networks. Ironically, this questioning is done not so much by scholars, but by those who are responsible for the current high-risk conditions such as industry insiders, analysts and nervous investors. The high up-front investments in next-gen blockbuster titles allow for little elasticity in pricing and even though Triple-A games offer decidedly different experiences compared to snack-sized games on the iPad, the difference between a \$60 console game or a one dollar, or free, casual game can hardly be ignored. Electronic Arts executive Peter Moore contended that because of market fragmentation game publishers are “standing on a burning oil platform” and therefore they have to make their games available across platforms and fully embrace all monetization opportunities afforded by digital distribution (Brightman, 2011). For next-gen Triple-A console games the main option Moore and his colleagues are exploring is the branched serialization formatting strategy. That is to say, game publishers are constantly refining business practices aimed at extending the Triple-A game beyond its release via paid-for digitally distributed additional content in order to keep gamers engaged and to have “the disc remain fresh”.

In this book, I studied how the next-gen Triple-A console game as a techno-economic-cultural artifact gave way to the unfinished commodity. Emphasizing the medium-specific techno-economic properties of console games, I primarily used a political economic approach to link the process of commodification to issues of ownership concentration that together “bring about other far-reaching mutations in the selection of creative products and their consumption” (Bustamante, 2004: 804-5). As argued in the previous chapters, the Triple-A segment's platforming strategy, operationalized through stringent intellectual property regimes and embedded in a constant upgrade culture, is an example of a specific institutional practice aimed at artificially creating scarcity and at positioning the Triple-A game as a cultural commodity. The central point of my argument has been that from a technological point of view, despite many discontinuities, the console segment's underlying techno-economic logic has not changed significantly with the introduction of new console hardware.

Considering the slowly shifting sources of income for the cultural game industry from a packaged goods model towards a more heterogeneous income model, the Triple-A segment can be seen as standing with one foot in the industrial age and with the other in the

networked era. On the one hand, Triple-A production and circulation is still rooted in a twentieth century business model characterized by a transaction logic, high upfront investments and the commodification of content. The argument of institutional continuity resonates with the sustainability of the “industrial” model build on two trends, which, in the words of Benkler (2006: 32), are “central to the project of control”: the commodification of culture and the concentration of industrial ownership. Yet increasingly, the Triple-A game's unfinished commodity status positions these artifacts as twenty-first century 'platforms of consumption'. The trend of bigger or 'über-blockbuster' games has implications when thinking about cultural production in terms of diversity. Furthermore, we are seeing a move from the transaction based flow publishing logic, towards a more continuous service based logic of cultural production and circulation. Before reflecting on the implications of the next-gen mode of blockbuster production in terms of political economy, I will once again peel back the onion layers of the cultural commodity that reveal a number of complex and often contradictory institutional practices and processes and a specific modality of cultural production and circulation.

Towards the unfinished commodity

With the 2005 introduction of networked high-definition consoles, the Triple-A commodity form transformed instantly. One way to frame the business model associated with console game publishing in general, in the words of Electronic Arts chief executive John Riccitiello, is the notion of “pay first, play later”.²²² This is to say that if a gamer wants to experience a console game in full, she has to acquire a physical copy first in order to play.²²³ In contrast, a new business logic emerging outside the console segment is that of “play first, pay later”, or in some cases not pay at all—for instance in social network based 'social games' such as *FarmVille* (2009). While Riccitiello's conceptualization of the console game publishing logic sounds convincing, it only covers the early stages of the process of commodification and consumption. 'Playing later', one might say, increasingly means 'pay more later'. A more appropriate description of a next-gen Triple-A game would be: 'pay first, play later, pay some more, play some more, buy sequel, rinse and repeat'. Instead of a discrete, finished artifact, the next-gen Triple-A game has become an unfinished cultural commodity for which you do

222 “Electronic Arts CEO John Riccitiello Shares His Company's Game Plan for Survival”. 2009. PBS.org. Available: http://www.pbs.org/nbr/site/onair/transcripts/electronic_arts_ceo_john_riccitiello_091208/. Last visited February, 24, 2010.

223 Note that this is an ideal situation for the publisher. It ignores a gamer's option to acquire a game by not directly paying for it, for example engaging in piracy, lending from friends, renting games or playing demo's.

not stop paying.

The next-gen era, then, is characterized by a hybrid distribution model that increasingly relies on digital distribution for an additional revenue stream. The next-gen Triple-A commodity form typically has a disc-based start and is subsequently digitally extended through the sale of what is referred to by consumers, critics and game publishers as downloadable content (DLC), or more accurately paid-for downloadable content (PDLC). Drawing on the work of Bill Ryan (1991), I theorized this particular mode of cultural production and circulation deployed by game publishers as “formatting”, an institutional strategy aimed at fostering predictability and replicability. On the one hand, individual Triple-A titles, are constantly patched, updated and extended—a formatting strategy I call 'branched serialization'—which speaks to the techno-economic logic of the integrated nature of perpetually upgraded game hardware and software. Because of the medium specificity of my analysis, I offer a counterpoint to Jenkins' (2006) transmedia argument, because the branched serialization formatting strategy shows how to expand an artifact within one platform. On the other hand the franchising format dictates the inevitable sequel. Future installments are built, marketed and sold on the promise that they innovate upon previous games in the series. Taken together, both formatting strategies speak to the next-gen game's unfinished character. Critics and business analysts commonly regard the hybrid publishing strategy as a transitional phase ushering into an era of fully digitized distribution.

Reflecting on the hybridity of the unfinished commodity form, the next-gen modality of circulation translates into a publishing logic that I theorized in chapter 3 as 'flow publishing'. The next-gen Triple-A game is a physical (or 'packaged' good) combined with digital extensions and therefore combines a transaction based publishing model with the more ephemeral logic of flow (Miège, 1989). The former logic corresponds with the publishing logic of the pre-networked distribution of console games, post-classical Hollywood movies on video cassette or DVD (cf. Kompare 2006), whereas the flow model is one of the defining characteristics of television as a technological and cultural form (Williams, [1974]2005).

Of course one might object that the flow and publishing modes of circulation and the unfinished nature of commodities are anything but new, an objection to which I fully subscribe. Drawing on the notions of publishing and flow is meant to stress the economic and institutional continuities amidst rapid technological change. Despite many converging socio-cultural and techno-economic shifts in the wider cultural industries, the hybrid nature of the next-gen Triple-A commodity form signals a continuation of business practices familiar to previous cycles and to commodity forms such as Hollywood blockbusters and television programming. More importantly, the logic of flow publishing signals the intensification of the

processes of commodification and spatialization—it epitomizes the cultural game industry's emphasis on capital-intensive and rationalized modality of cultural production and circulation. Platform owners and game publishers positioned the unfinished commodity to be the logical result of an economic necessity and partly because of that, extending the Triple-A commodity beyond its initial release has become a taken-for-granted publishing arrangement and is considered by many an imperative for long term fiscal growth.

The flow publishing logic not only stands for a particular publishing arrangement, it also signals a particular set of institutional practices related to the production and circulation of Triple-A games. This modality is best described as top-down, well planned by its instigators, and requiring significant up front capital investments. As I asserted in chapters 4 and 5, the unfinished commodity form is rooted in a particular corporate context. Drawing on Vincent Mosco's (2009) notion of “spatialization”, I argued that industrial ownership in the Triple-A segment translates into a pyramid model with two platform holders at the top and a small number of game publishers dominating the market. For instance, the combined revenue of the Triple-A related hardware and software sales of Microsoft, Sony, Electronic Arts and Activision Blizzard represent over half of the annual revenue in the segment. The corporate reach of major media moguls is most apparent in the 2007 merger of Activision and Blizzard, as this form of horizontal integration is made possible by the French media conglomerate Vivendi that now owns a majority stake in the new publisher. In terms of both revenue and net income, Activision Blizzard became one of the biggest game publishers in the world and this has significant effects for the nature of Triple-A production and circulation.

Scholars such as Hesmondhalgh (2007: 174-5) point to the “continuing presence of small companies” in the wider cultural industries as an indication of how corporate concentration is continuously counterbalanced by the output of small, creative corporate entities; they also stress that at the level of conception, the affordable means of production for literature and music provide small companies with enough opportunities to prosper. Similarly, there is the lowering of production and transaction costs for networked-arcade-titles available via Xbox Live and Playstation Network, or the advent of new publishing platforms outside the dominant console duopoly. Theoretically, new hardware and software platforms would allow for new game development companies to emerge from the fringes as well as offer existing development studios the chance to experiment with smaller projects. Yet, as Kline et al. (2003: 179) note, the possibilities for semi-independent developers are severely constrained by publishers and platform holders who “drive towards consolidation and concentration of ownership and favour promotionalization and standardization of game content”, as such illustrating “the contradictory forces shaping the structure of the information age

corporation". The logic of flow publishing and the network effects associated with digital distribution led to an integration along the value chain, whereas instances of value chain disintermediation, for instance in the case of outsourcing, have solidified the position of power of transnational game publishing moguls.

In chapter 6 & 7, I reflected on the techno-economic specificity and continuities related to the advent of the seventh generation of console hardware. Considering the notion of a 'next-gen' era in itself, it is tempting to frame any account of this 'new era' and its accompanying set of techno-economic innovations, as an epochal shift of vast proportions. Even though the logic of constant upgrading is ingrained in very single aspect of next-gen gaming—from hardware platforms to game development, and from business models to marketing and PR—the same can be said of previous hardware cycles. What the notion of a techno-economic logic offers, is a deconstruction of the proprietary platforming strategy and of the extent to which innovation and progress are ingrained in the economic underpinnings of the game industry. As Lessig (2008: 121) argues, the Internet "made old business models work better" offering platform owners an unprecedented level of control over commodity circulation.²²⁴ Moreover, the networked nature of next-gen consoles reinforced network effects resulting in a predictable winner-takes-all dynamic and subsequently propelling the hit to unprecedented heights. It should be noted that the disproportionate amount of attention for a bestselling Triple-A game such as *Call of Duty: Modern Warfare 2* is as much a socio-cultural phenomenon as it is an economically driven event afforded and constrained by innovative proprietary platforms.

Reflecting on the process of spatialization, Dovey and Kennedy (2006: 43) state: "The system of game production is now very similar to the situation of any other major media industry insofar as the individual producer has a very narrow margin of choice over what they can make at any given time". The vertically integrated, high risk and high capital nature of Triple-A publishing seems to hamper the fruitful counterbalance of small companies. Simply put, in the next-gen era, there are no 'small publishers' left who are able or willing to publish Triple-A games, nor are there many possibilities for newly emerging publishers to enter the segment. Chapter 8 related this issue to the process of commodification and discussed the mitigation of risks by game publishers financing the production of cultural commodities; it also explained how these risks translate into specific business strategies and how these strategies

224 Or as political economist McChesney argues: "Indeed, to a certain extent it seems the Internet encourages the monopolistic impulse in capitalism as much as the competitive one. In industry after industry—e.g. Amazon and Google—the network effects combine with market economics point more toward monopoly" (McChesney, 2008: 19).

subsequently relate to the next-gen Triple-A game's commodity form.

Reviewing public statements by game publisher executives, combined with financial, institutional and textual analysis of the *Call of Duty* franchise, illustrates how game publishers approach investments in new intellectual property and subsequently rationalize cultural production and circulation. The dominant creative mantra is one of 'variation on an established theme' such as a genre, but preferably a franchise or brand. Being asked by an investment analyst about the hit-driven nature of his business, Activision Blizzard CEO Bobby Kotick (2009) responded by pointing out the publisher's rationalized mode of cultural production and their disciplined approach towards commodity circulation as a strategic advantage over competitors. The publisher's process of developing a new, original game starts with the surveying gamers who indicate "what they want into their innovative new product". In this context the notions of 'innovative' and 'new' are relative terms as innovation preferably takes place within a game franchise. "The pathway of innovation" within a franchise, Kotick argues is "easier and better defined". This leaves Kotick to conclude, on the one hand, that "companies that have proven franchises and that have the discipline to leverage them are always going to be better and gonna have a greater level of success", while, on the other hand "the single hardest thing to do in the video game business is introduce original IP and that is why it does not happen very often". In sum, the launch of new IP is regarded as too costly and too risky and because of that in the next-gen era game publishers opt for the "fewer and bigger" mantra. While the blockbuster has been declared dead many times over and while its capital-intensive modality of production may indeed be unsustainable, the hit is bigger than ever before. Next, I will briefly reflect on the limitations of my approach.

Limitations of the study

My argument primarily concerned the unpacking of the Triple-A commodity *form* and therein lies, I would argue, both the strength and limitation of my approach. The combination of the circuits of technology, economy and culture offers an in-depth understanding of the interacting levels of hardware, software and industry and the corresponding processes of commodification, spatialization and the console game's techno-economics. Because of this explicit focus there are issues pertaining to both the Triple-A game and its usage that are not exhaustively explored in this book. I will review two issues—the Triple-A game's style and its appropriation and reception—which have been analyzed in-depth elsewhere, but also might offer themselves as avenues for further research.

In his analysis of the "high concept" movie, Justin Wyatt (1994: 20-24) goes to show

how a film's style is integrated with its marketing and how such films offer a distinctive visual form based on a mixture of its music, movie stars, characters, genre and "look". Even though a Triple-A game is composed of many different formal properties, the style of a blockbuster game is very much driven by economic and institutional forces similar to those in the movie industry. That said, the issue of style and its relation vis-à-vis the commodity form have been marginal in my analysis. In the last chapter I briefly alluded to the publisher's business practice of cataloguing and how action-oriented themes define the Triple-A game's style. Juul (2010: 31) observes that the "typical hardcore game is often set in dangerous situations, allowing the player to take on the role of a soldier, or to crash cars, and so on". I concur with the notion that the disposition towards a more "negative fiction preference" influenced many Triple-A games, particularly first person shooters and action games (ibid.).

Others offer in-depth readings of the influences, popular themes, game mechanics and narratives constituting the console game (e.g. Brookey, 2010; Jones, 2008; Sicart, 2009). For instance, drawing on the autonomist theory of Hardt and Negri (2000), Dyer-Witheford and De Peuter (2009: 157) offer a valuable in-depth study of, for example, how the popular *Grand Theft Auto* franchise arises "from a specific moment in global capital's urbanization dynamic and, in turn, reinforces territorializations of class and race that typify Empire". Speaking of landmark Triple-A titles as *Mass Effect*, *Call of Duty: Modern Warfare*, *Far Cry 2* (2008) and *Grand Theft Auto IV*, Tom Bissell (2010: 70) argues that: "While films became more *formally* interesting, video games became more *viscerally* interesting. They gave you what they gave you before, only more of it, bigger and better and more prettily rendered". I could not agree more with these observations. These in-depth investigations into the style, themes, reception, narratives and meaning of Triple-A game are very much complementary to my analysis of the Triple-A commodity *form* as such.

Next to the Triple-A's style and the way its dominant themes are connected to forms of ideological and political discourse (cf. Hassler-Forest, 2011), there is a second aspect that I have only touched upon. Little attention has been paid to the demographic profile, the interpretive practices and institutional position of the Triple-A gamer. I will briefly touch upon these three issues. First, one might wonder who is playing next-gen Triple-A games. The answer is rather straightforward. There is a wealth of data on the rather homogenous group of players that map neatly to the stereotypical image of 'the gamer'. For instance, next-gen consoles are primarily used by young men who, on average, play more hours a week and spend more on games than any other demographic (ISFE, 2007). Talking about US console gamers, research company Nielsen (2007: 2) found that: "Two-thirds of all men aged 18-34 have access to a video game console in their home". It would be interesting to further

investigate the relationship between this demographic, its consumption and leisure patterns and the Triple-A commodity form.

Second, I have purposely shied away from questions of gamer reception. In this book I do claim that it appears for many Triple-A gamers that buying a Triple-A game, or anticipating buying it, is an end in itself; the product is set-up in such a way that facilitates a 'consumptive flow'. Buying a game and talking about upcoming games appears just as important in a "permanent upgrade culture" as playing games (Dovey & Kennedy, 2006). An exhaustive study on video games commissioned by the British Board of Film Classification states that "it is noticeable that gamers very often know about forthcoming launches of games. These are anticipated keenly, especially if they are new versions of existing favourites" (Cragg et al., 2007: 20). It seems likely that a gamer's interpretative practices are mutually constituted in a similar fashion by the institutional logic of flow publishing. Further research should shed some more light on the observation that digital play takes place within such a particular culture of consumption asking such questions as: How do gamers approach their day-to-day play practices? Is a Triple-A game a commodity first and a playful object second?

A third issue would be the ubiquitous practice of the appropriation of Triple-A games by users. With so many critics, journalists and academics stressing the transformative and revolutionary nature of digital technologies and social media, one might wonder: will mass produced cultural commodities soon be something of the past? Given the rise of affordable and accessible ways for consumers to engage in meaningful cultural production, the prevalence of the blockbuster as a capital intensive, heavily marketed commodity might come as a surprise. Creative consumers, also labeled as "producers" (Bruns, 2008), or in the case of the cultural game industry "modders" (Kücklich, 2004; Nieborg, 2005a; Postigo, 2007, 2008; Sotamaa, 2007), are said to be able to produce content rivaling with for-profit productions. Yet, are user created non-market material such as maps, levels or "total conversions modifications" able to challenge the hegemony of the hit? When it comes to next-gen Triple-A titles, I would argue that user created content consolidates the position of the hit rather than threatens it.

First of all, the number of console games facilitating user created extensions is, particularly compared to PC games, rather low. Platform owners, Microsoft in particular, seem very reluctant to open up their proprietary platforms. In the case of first persons shooters, the availability of user created maps could, theoretically, threaten the uptake of paid-for DLC. However, the unprecedented sales figures of PDLC for popular shooters in the *Halo*, *Call of Duty* and *Battlefield* franchises suggest otherwise. And even if user created content would play a more central role in the publishing strategies of next-gen hardware, the mere option to

engage in non-market production does not cause a next-gen Triple-A game to be a less capital-intensive, heavily marketed property. On the contrary, user-created content extends the longevity of a title, consumers add value to the product rather than potentially undermining the flow publishing business logic. In the end I would argue, and this argument is the core of chapter 6, that despite a fundamental shift in the ecological lay-out of the information economy—the rise of commons-based, non-market peer production (Benkler, 2006)—the game industry's ongoing expansion, its growing economic validity, and its growing economic volume, all point towards the industry's successful appropriation of the tried and tested capitalist ideology of commodification of, in this case user created content. Therefore, as game publishers and platform owners successfully leverage familiar mechanisms of control, and on their part appropriate, or at least forfeit the potentially democratic possibilities of non-industrial production and distribution mechanisms, political economic theory is instrumental to conceptualize and understand the Triple-A commodity form.

Towards platforms of consumption

Apart from the question whether or not the current mode of blockbuster production is sustainable, I will end this book by briefly exploring the future of the blockbuster form. What are the implications of the big games getting bigger and bigger and of the flow publishing logic intensifying? I contend that console games are increasingly becoming 'platforms of consumption'. Rather than a starting point for reception and appropriation, Triple-A games are also a jump-off point for an extended form of commodification.

Talking about commodities in general, economist Jeremy Rifkin (2000: 85) notes: "Companies are revolutionizing product designs to reflect the new emphasis on services. Instead of thinking of products as fixed items with set features and a one-time sales value, companies now think of them as "platforms" for all sorts of upgrades and value-added services". This observation corresponds with the flow publishing logic, which has a disc-based start and is digitally extended after launch with songs, maps, or full-blown episodes. This institutional move towards a service-based production and circulation logic coincides with the winner-takes-all dynamic underlying the next-gen publishing logic. Allow me to explore these trends and consider their potential ramifications both inside the Triple-A segment as well as the wider cultural industries.

During the next-gen cycle, the "super-blockbuster" movie (Schatz, 2003) got its ludic equivalent in the next-gen Triple-A game. As a result, the first half of the seventh generation coincided with the rise of the, to put it in gamer discourse, 'über-Triple-A game'. These mega

properties not only signal significant financial investments in terms of production, they receive a disproportionate amount of attention and investments of developers, publishers, retailers, consumers and critics. Consider the 20 million unit selling über-blockbuster *Call of Duty: Modern Warfare 2*. Game publisher Activision Blizzard is reported to have spend \$40 to \$50 million to develop *Modern Warfare 2*, whereas the title's launch budget—covering “marketing expenses and the cost of producing and distributing discs”—was \$200 million, “on par with a summer popcorn movie—and extremely high for a video game” (Fritz, 2009). Super hits like these, figuratively speaking, suck the oxygen out of the air and are slowly but steady becoming the be all and end all of console based interactive entertainment.

Political economists tend to agree about the accumulative nature of capital and its subsequent effects on cultural diversity (Bagdikian, 2004).²²⁵ To go beyond the mere acknowledgment of concentrated ownership, I concur that the cultural industries' dominant market structures result “in the suppression of diversity” (Bettig & Hall, 2003: 9). As Wayne (2003: 85) argues: “Because competition drives down profit margins there is an ineluctable pressure to diminish competition wherever possible, by driving competitors out of the market, by take-overs and mergers and by raising barriers of entry to a market”. In contrast, at first glance the diversity of output of the cultural game industry might seem overwhelming. In retail stores there are numerous games to choose from. “It is true that thousands of games are available”, Kline et al (2003: 237) observe, however, “the logic of economies of scale and the fear of failure favour the serialization of success”. Moreover, as Mosco (2009: 221-2, emphasis his) notes, there is a “fundamental difference between the sheer number of voices (multiplicity) and the number of *different* voices (diversity)”. The diversity of voices, then, as we have seen in this book, is rapidly shrinking.

Blockbuster games are in many ways seen as highly innovative and in many ways they indeed do have an innovative edge to them. Yet, as Kline et al. (2003: 57) note: “There is at the heart of the gaming industry a contradiction between “commodification and play”, a tension that paradoxically drives its frenzied creativity and subverts its own success”. That is to say, the underlying formats of franchises such as *Call of Duty* are highly formulaic. Games may be increasingly customizable—gamers can buy various sorts of additional content to tailor their game experience to their own tastes—these are oftentimes variations on a theme rather than true player freedom or creativity (cf. Sihvonen, 2011). While it is certainly true, as the research of Jenkins (2006) shows, that exploiting synergy structures can be a messy and challenging

225 That said, the determinants of media diversity go beyond concentrated ownership and include the size/wealth of a market, the consolidation of recourses (Doyle, 2002).

affair, global cultural industries still are unequally distributed in terms of access, wealth and power.

Next to the rise of the über-blockbuster game, the flow publishing logic corresponds to transformations within computing and information culture, shifting from physical stand-alone content to paid limited duration access of music, books, streaming films, and even software. Because of the game's distinctive textual status as software, Triple-A games are a particularly useful exemplification of this trend. The Triple-A commodity form, then, is an interesting hybrid artifact in a historical and a material sense. Triple-A games as cultural commodities are decidedly different from 'linear' texts such as songs, movies or television programming. Yet, within the broader category of software one could also position games as being part of a continuum. One side of the continuum is populated by fully finished or stable games, such as pre-networked Triple-A games published on cartridges. On the other side of the continuum one would find online games, either massive multiplayer games such as *World of Warcraft* or slightly less complex games like *FarmVille*. From a textual, as well as a techno-economic angle, these games are best categorized as highly unstable. Both extremes correspond to different commodity forms. Whereas pre-networked games follow a transaction logic, networked games are better understood as services.

The next-gen Triple-A game, then, is in every aspect a hybrid. It mixes a product logic and a service logic. It combines packaged goods and digital content, industrial and post-industrial qualities, and fuses the material labor of standardized hardware with the immaterial labor of developing experiential software (cf. Deuze, 2007; Terranova, 2002). The production of Triple-A games, Dyer-Witheford & De Peuter (2009: 58) explain, “tend much more to a neo-Fordist, re-Taylorized disciplining of the cognitariat”. One could say that game publishers and platform owners in the Triple-A segment operate an analogue business model in a digital world. From the PC-based expansion packs towards paid-for DLC, the unfinished commodity seems in every aspect to be moving towards an ongoing commercial relationship between gamer and game publisher. The integrated nature of networked hardware and software are propelling the hit to unseen heights and turning the Triple-A game into a platform for the acquisition of additional content.

Looking into the future, beyond the Triple-A segment we see how proprietary hardware and software platforms, such as the iPad and Facebook, are distributed faster than ever before. The political economy of recent hits such as *CityVille* (2010) on Facebook, and *Angry Birds* (2009) dominating the charts in Apple's App Store, is in many aspects strikingly similar to that of the Triple-A game. *CityVille*'s developer Zynga could boast that the game attracted one hundred million players on its launch. Similarly, tens of millions of *Angry Birds*

versions were distributed across hardware platforms. It took both games a matter of months, rather than years to do so. The winner-takes-all logic in the age of online social networks and networked proprietary platforms leads to the intensification of the processes of commodification and spatialization.

Rather than accepting the Triple-A segment's dominant flow publishing strategy as is, or taking the concentration of power among platform owners and game publishers at face value, my aim has been both to deconstruct the nature of Triple-A game production and circulation, as well as to theorize the implications of the unfinished Triple-A commodity form. The capital intensive, for-profit nature of Triple-A production combined with the closed-off, proprietary nature of console hardware and the entry high barriers to outsiders, either amateurs or industrial actors, provide a clear economic rationale for sustaining the blockbuster's commodity form. "As long as it is expensive to produce music or the evening news", or games for that matter, "there are indeed few competitors for top billing, and the star system can function" (Benkler, 2006: 55). The digital game in its commodity form, whether it is *Angry Birds*, *CityVille* or *Call of Duty: Modern Warfare*, signal the continuation of the concentration of ownership, the focus on perpetual innovation and the enforcement of stringent intellectual property regimes. While the blockbuster's commodity form has changed substantially over time, and while many question its sustainability, its political economy will remain very much the same.

Summary

The aim of this book is to deconstruct, theorize and critique the development and circulation of console games. With the launch of the Xbox 360 (2005) and the Playstation 3 (2006), the advent of the seventh console cycle afforded a new type of cultural commodity: The 'next-gen' Triple-A video game. It is argued that the Triple-A game's commodity form, also known as the blockbuster game, hit game, or core game, is emblematic for a specific modality of cultural production in the game industry. Drawing on political economy, critical theory, media economics and innovation studies, this book theorizes how the forces of capitalism shape the console game's commodity form, how Triple-A games work as products and which purpose they serve for game publishers and platform owners Microsoft and Sony. The book investigates how the blockbuster game is institutionally embedded, how game software is integrated with game hardware and how the commodity form is at the same time culturally defined and shaped both by consumer and industry practices.

Because of the specific focus on the seventh generation of console hardware, the book offers an in-depth analysis of a commodity form in transformation. As is every new console cycle, the next-gen era is a period of transition and as a result the next-gen commodity form is different from previous console cycles. Compared against previous hardware cycles, what defines the seventh hardware cycle is the networked nature of the Xbox 360 and the Playstation 3 together with a leap in storage and computational capabilities.

It is argued that the typical next-gen Triple-A console game is part of a game franchise with regular iterations, and after distributing game discs, the game is extended digitally through a series of well-timed downloadable content packs. As a result, instead of a discrete, stable and finished artifact, the Triple-A game has become both a hybrid (both physical and digital), but above all an 'unfinished commodity'. The business strategy of 'flow publishing' reflects this hybridity, the Triple-A game being both a physical good combined with digital extensions, combining the transaction based publishing model and the more ephemeral logic of flow publishing. The origins and implications of the shift towards the unfinished commodity form can be traced back to the affordances and constraints of next-gen hardware, combined with the platform owners' iron grip over the means of circulation.

Combining financial and institutional analysis and the textual analysis of Triple-A game franchises, this book maps the cultural, technological and economic dimensions of the blockbuster game in order to analyze, comprehend, and criticize dominant patterns of

thought, leading business practices and largely unquestioned business models. Studying the circuits of technology, economy and culture offers an in-depth understanding of the interacting levels of hardware, software and industry and the corresponding processes of commodification, spatialization and the console game's techo-economics. The capital intensive, for-profit nature of Triple-A production combined with the closed-off, proprietary nature of console hardware and the entry high barriers to outsiders, either amateurs or industrial actors, provide a clear economic rationale for sustaining the blockbuster's commodity form. That is to say, the ability to control cultural production and the circulation of content through an elaborate set of economic arrangements, and through physical and legal protection schemes, is a key characteristic of the Triple-A game's political economy. Because of the integrated nature of game hardware and software, the dedicated game console as a hardware platform has a structuring effect on the production and distribution of the Triple-A game, its commodity form and formatting strategies, and, in the end the nature of consumption.

The core argument goes beyond the purely textual, beyond the idiosyncrasies of play, but also beyond a singular technological or economic definition of the digital game. Instead, the Triple-A game is theorized by linking the process of commodification to the increasingly concentrated nature of industrial ownership in the Triple-A market segment. The anatomy of the Triple-A commodity form demonstrates that the rules of play are as much governed by a game's internal ludic properties as they are structured and alternated by a distinctive market logic. This book concludes with pointing towards the hit-driven nature of blockbuster publishing and what this means for the Triple-A commodity form as well as content diversity.

Nederlandse samenvatting

De game industrie kenmerkt zich door voortdurende verandering. Sommige veranderingen hebben voornamelijk een economisch of sociaal-cultureel karakter, andere een meer technische dimensie. Maar de meeste innovaties zijn een combinatie van deze factoren. Een van de meeste zichtbare momenten van verandering binnen de game industrie, is de introductie van een nieuwe spelcomputer. Doorgaans komen er meerdere, concurrerende spelcomputers tegelijk op de markt. Binnen de game industrie wordt daarom ook wel gesproken over een spelcomputer cyclus of een hardware generatie.

Met de lancering van de zevende generatie spelcomputers in 2005 onderging de game industrie een vrij fundamentele transformatie. Tijdens de introductie werden deze apparaten ook wel de “next-gen” spelcomputers of 'consoles' genoemd. In dit proefschrift richt ik mij specifiek op deze next-gen cyclus en dan met name op de Xbox 360 van Microsoft en de Playstation 3 van Sony. In vergelijking met spelcomputers uit het verleden onderscheiden deze geavanceerde machines zich met name vanwege de mogelijkheid om high-definition (HD) beelden te genereren. Daarnaast zijn deze hardware platformen genetwerkt. Dat wil zeggen dat ze verbonden zijn met het internet, zodat er tegen anderen gespeeld kan worden. Tegelijk biedt dit ook de mogelijkheid om extra spelmateriaal digitaal te distribueren.

Maar meer nog dan de werking van next-gen consoles analyseer ik de games die op deze spelcomputers te spelen zijn. In het bijzonder richt ik mij op wat ik 'Triple-A games' noem, oftewel blockbuster spellen. Denk hierbij aan hits uit bekende reeksen als *Call of Duty*, *Assassins' Creed*, *Mass Effect* en *Grand Theft Auto*.

Om Triple-A games te kunnen bekritisieren, theoretiseren en deconstrueren onderscheid ik drie analyse niveaus. Namelijk die van het spel (software), de spelcomputer (hardware) en de game industrie. Puttend uit politiek economische theorie, kritische theorie, innovatie theorie en media economie poog ik deze drie niveaus met elkaar in verband te brengen om zo een beter beeld te krijgen van de eigenheid van de next-gen Triple game.

Het doel van dit proefschrift is dan ook de Triple-A game beter te begrijpen in haar zogenaamde “commodity form”, of in het Nederlands, “warenvorm”. In het opkomende vakgebied van de game studies ligt de nadruk met name op games of gamers. Enerzijds wordt er onderzoek gedaan naar de vraag hoe spelers betekenis verlenen aan games of wat de invloed is van games met, bijvoorbeeld, gewelddadige thema's. Anderzijds is er vooral aandacht voor de formele eigenschappen van games. Denk hierbij bijvoorbeeld aan de vraag

wat het verschil is tussen games en simulaties.

De invalshoek van dit onderzoek is wat minder gebruikelijk en richt zich op zowel de technische kant van games, door aandacht te besteden aan hardware, alsmede de economische kant van de productie en circulatie van games. Kortom, dit proefschrift reflecteert op de politieke economie van de Triple-A game. Een onderscheid tussen de politieke economie van blockbuster games, mobiele games of PC games wordt in de literatuur nog te weinig gemaakt. Vragen omtrent de status van games als producten worden zelden gesteld en ik wil dat met dit proefschrift veranderen en concepten, theorieën en vragen aandragen die een inhoudelijke discussie mogelijk maken.

De eerste hoofdstukken van dit proefschrift hebben betrekking op het niveau van het spel door het proces van “commodificatie” (vermarkting) te theoretiseren. Dit proces is een politiek economisch concept en is uitgebreid besproken door Karl Marx. Hij stelt dat artefacten, in dit geval games, een bepaalde gebruikswaarde hebben die vervolgens omgezet worden in een goederen met een bepaalde ruilwaarde. Al snel wordt duidelijk dat dit proces grote gevolgen heeft voor welke soorten games er te spelen zijn, hoe deze in elkaar zitten en wie ze maken en distribueren. Het aantal aanbieders van Triple-A games, bijvoorbeeld, is relatief klein.

Dit proces van vermarkting speelt zich af in een tijdperk van grote technologische en economische veranderingen binnen de culturele industrie. In mijn proefschrift stel ik dat er met het begin van de zevende generatie zich ook binnen de game industrie een verandering heeft voltrokken. Namelijk een van fysieke distributie naar digitale distributie. Vergelijkbaar met de muziek industrie die de overstap heeft gemaakt van CD's naar het streamen van muziek of de verkoop van losse nummers via online winkels, worden games in toenemende mate digitaal gedistribueerd. Echter, gedurende de zevende console cyclus is de blockbuster game een hybride product geworden. In hoofdstuk 2 en 3 ga ik hier dieper op in en leg ik uit hoe de blockbuster game start als een fysiek product, dat vervolgens digitaal verlengd wordt. Bijvoorbeeld door de verkoop van zogenaamde 'downloadable content' of DLC. Deze hybride vorm is een typisch gevolg van de game in zijn productvorm.

Gevolg daarvan is weer dat de Triple-A game verworden is tot een product dat nooit af is. Want als de gebruiker het gehad heeft met zijn of haar favoriete spel dan is er, als het aan de uitgever ligt, altijd een vervolgdeel om te spelen. Spelers wordt voortdurend voorgehouden dat er altijd meer materiaal is om het spel te verlengen of dat het nog even wachten is op een nog beter vervolgdeel. Deze vorm van productie en distributie is het best te begrijpen als “flow uitgeven”. Er is een continue stroom van zowel fysiek als digitaal materiaal. In vergelijking met andere producten binnen en buiten de game industrie is het gegeven van een fysiek product,

een spel op een plastic schijfje, dat digitaal verlengd wordt, vrij uniek.

Om de veranderende productvorm van de Triple-A game beter te kunnen duiden gaan de hoofdstukken 4 en 5 in op de verschuivende machtsverhoudingen binnen de game industrie. Dit is het industrie niveau. Niet de wereldwijde, gehele game industrie wordt onder de loep genomen, maar enkel die ontwikkelaars en speluitgevers die zich bezig houden met de productie van next-gen Triple-A games. Het zogenaamde Triple-A marktsegment.

Om de veranderingen binnen het marktsegment beter in kaart te brengen, wordt er gebruik gemaakt van het bedrijfskundige concept van de waardeketen. De vraag is welke bedrijven daadwerkelijk bijdragen aan de productie van een blockbuster game, welke bedrijven de circulatie controleren en welke verschuivingen er zijn als het gaat om machtsverhoudingen binnen dit proces. Al snel wordt duidelijk dat de rol van een kleine groep speluitgevers steeds dominanter wordt. Miljardenbedrijven als Activision Blizzard en Electronic Arts zijn verantwoordelijk voor het leeuwendeel van de productie van Triple-A games. Zij hebben een cruciale rol doordat zij nieuwe projecten financieren of in pandig opstarten. En daarnaast hebben ze ook nog de mogelijkheid om concurrenten op te kopen en strategische allianties aan te gaan. Zoals ook in andere takken van de culturele industrie gewoon is kan je stellen dat de belangrijke spelers binnen de game industrie steeds groter, kapitaalkrachtiger en dus machtiger worden.

De hoofdstukken 6 en 7 hebben betrekking op het hardware niveau en gaan dieper in op de controlerende rol die platform eigenaren, Microsoft en Sony, hebben. De machtige rol van deze multinationals komt voort uit twee complementaire processen. Aan de ene kant zijn er miljarden aan investeringen nodig om nieuwe hardware in de markt te zetten. Juist vanwege de voortdurende innovatie van hardware en software zijn er maar weinig marktpartijen in staat om mee te doen in deze risicovolle strijd om marktleiderschap. Aan de andere kant maken de platform eigenaren gebruik van allerlei technische, economische en juridische mechanismen om hun platformen zo effectief mogelijk te controleren. Een voorbeeld hiervan is dat de platform eigenaren bepalen wie wel en wie er niet Triple-A games mogen uitgeven op hun platform. Deze macht is echter niet absoluut. Want zonder goede games en grote speluitgevers worden er geen spelcomputers verkocht en moeten de platform eigenaren fors afschrijven op hun investeringen.

In het laatste hoofdstuk breng ik alledrie de niveaus van hardware, software en industrie weer bij elkaar. Zoals de naam Triple-A al suggereert gaat dit onderzoek over hits, of games die bedoeld zijn om een onevenredige mate van aandacht te trekken en zoveel mogelijk exemplaren te verkopen. De dynamiek van de zevende generatie is dat de hits groter zijn dan ooit tevoren. Er worden meer exemplaren verkocht van Triple-A games in een vaak zeer kort

tijdsbestek. Tegelijkertijd zijn de budgetten van Triple-A games aanzienlijk toegenomen. Gevolg hiervan is dat de risico's navenant meestijgen. Het antwoord van speluitgevers om de financiële risico's toch nog enigszins in te perken is om nog meer te investeren in marketing en om het productieproces voorspelbaarder te maken. Zo worden er in het Triple-A segment vooral vervolgdelen uitgebracht van bewezen successen. Daarnaast, en dat is een van de conclusies van mijn onderzoek, biedt digitale distributie de mogelijkheid om steeds kleinere onderdelen van games aan te bieden na aankoop van een fysiek spel. Meer nog dan het verkopen van een 'af' product stelt de game industrie zich in toenemende mate op als een leverancier van diensten. Games worden dan consumptieplatformen om zo het proces van vermarkting te intensiveren en om gamers continue in contact te laten blijven met speluitgevers.

Hoe lang de blockbuster game in zijn huidige vorm blijft bestaan? Niemand kan het echt zeggen. Maar een paar trends zijn duidelijk: de investeringen, belangen en bedrijven worden steeds groter als het om games voor spelcomputers van deze generatie gaat. In de onvermijdelijke overgang naar de volledige digitale distributie van games is het de vraag of deze trend zich doorzet. Ongetwijfeld zal de next-gen Triple-A in zijn huidige, hybride vorm veranderen. Wat voorlopig niet zal veranderen is de vrij bepalende rol van een selecte groep speluitgevers en platform eigenaren als het gaat om de productie en circulatie van blockbuster games.

Bibliography

- "Sony Focuses on the Future of Entertainment at CES 2006". 2006. Sony.com. January 25, 2008. <http://news.sel.sony.com/en/press_room/corporate_news/release/9401.html>.
- "Activision F4q08 (Qtr End 3/31/08) Earnings Call Transcript". 2008. Seeking Alpha. July 4, 2009. <<http://seekingalpha.com/article/76430-activision-f4q08-qtr-end-3-31-08-earnings-call-transcript?page=-1>>.
- "Activision Blizzard Q1 2009 Earnings Call Transcript". 2009. Seeking Alpha. July 4, 2009. <<http://seekingalpha.com/article/136299-activision-blizzard-q1-2009-earnings-call-transcript?page=-1>>.
- "Activision Blizzard Q2 2009 Earnings Call Transcript". 2009. Seeking Alpha. August 8, 2009. <<http://seekingalpha.com/article/154118-activision-blizzard-q2-2009-earnings-call-transcript?page=-1>>.
- "Electronic Arts F1q10 (Qtr End 6/30/09) Earnings Call Transcript". 2009. Seeking Alpha. August 8, 2009. <<http://seekingalpha.com/article/153765-electronic-arts-f1q10-qtr-end-6-30-09-earnings-call-transcript?page=-1>>.
- "Face Value: Bobby Kotick, Video-Games Publisher". 2009. The Economist. April 10, 2010. <http://www.economist.com/people/displayStory.cfm?story_id=E1_TQNDJRRT>.
- "Cod:Waw Surpasses 11 Million Units!". 2009. Treyarch.com. July 5, 2009. <<http://www.treyarch.com/news/230>>.
- "Bioware Announces New Release Date for Dragon Age: Origins Pc". Redwood, CA, 2010. EA.com. August 4 2010. <<http://www.ea.com/news/bioware-announces-new-release-date-for-dragon-age-origins-pc>>.
- "Bioware's Dragon Age: Origins Hits Retail Shelves in North America". Redwood, CA, 2010. EA.com. August 4 2010. <<http://www.ea.com/news/biowares-dragon-age-origins-released-north-america>>.
- "Xbox Live Refund Policy". Redwood, CA, 2010. Xbox.com. October 3, 2010. <<http://support.xbox.com/support/en/us/nxe/xboxlive/myaccount/managemyaccount/refundpolicy.aspx>>.
- "Electronic Arts Q4 2010 Earnings Call Transcript". 2010. Seeking Alpha. March 3, 2011. <<http://seekingalpha.com/article/204598-electronic-arts-q4-2010-earnings-call-transcript>>.
- "Activision Blizzard Q2 2010 Earnings Call Transcript". 2010. (August 5): Seeking Alpha. March 3, 2011. <<http://seekingalpha.com/article/219068-activision-blizzard-q2-2010-earnings-call-transcript>>.
- "Super Bowl Ad Prices Dip, But Still Pricey". 2010. CBS News. April 15 2010. <<http://www.cbsnews.com/stories/2010/01/11/sportsline/main6082591.shtml>>.
- "Activision Blizzard's Ceo Discusses Q4 2010 Results - Earnings Call Transcript". 2011. Seeking Alpha. March 3 2011. <<http://seekingalpha.com/article/251909-activision-blizzard-s-ceo-discusses-q4-2010-results-earnings-call-transcript>>.
- Aarseth, Espen. *Cybertext: Perspectives on Ergodic Literature*. Baltimore: Johns Hopkins University Press, 1997.
- . "Computer Game Studies, Year One". *Gamestudies.org* 1.1 (2001).
- . "Playing Research: Methodological Approaches to Game Analysis". 2003. Melbourne DAC20032003. <<http://hypertext.rmit.edu.au/dac/papers/Aarseth.pdf>>.
- . "The Culture and Business of Cross-Media Productions". *Popular communication* 4.3 (2006): 203–11.
- Acheng. "Top Oblivion DLC on Xbox Live, Lifetime". 2009. Bethblog.com. August 9 2009. <<http://bethblog.com/index.php/2009/01/30/top-oblivion-dlc-lifetime>>.
- Activision. *Where the Action Is*. Santa Monica, 2002.

- . *Breaking Records*. Santa Monica, 2003.
- . *Activision Annual Report 2005 - A History of Growth*. Santa Monica, 2005.
- . *Game On*. Santa Monica, 2008.
- Activision Blizzard. *2008 Annual Report*. Santa Monica, 2009.
- . *2009 Annual Report*. Santa Monica, 2010.
- Adorno, Theodor W. *The Culture Industry - Selected Essays on Mass Culture*. Ed. J.M. Bernstein. London: Routledge, 1991.
- Adorno, Theodor W. and Max Horkheimer. "The Culture Industry: Enlightenment as Mass Deception." *The Cultural Studies Reader*. Ed. Simon During. London: Routledge, 1993.
- Albarran, Alan B. *Media Economics: Understanding Markets, Industries and Concepts*. Ames, Iowa: Iowa State University Press, 2002.
- . "Media Economics." *The Sage Handbook of Media Studies*. Ed. John Downing. Thousand Oaks, Calif.: Sage Publications, 2004. 291-308.
- Allen, Michael. "Talking About a Revolution: The Blockbuster as Industrial Advertisement." *Movie Blockbusters*. Ed. Julian Stringer. London: Routledge, 2003. 101-13.
- Alvisi, Alberto., Alessandro Narduzzo and Marco Zamarian. "Playstation and the Power of Unexpected Consequences." *Information, Communication & Society* 6.4 (2003): 608-27.
- Anderson, Chris. *The Long Tail: Why the Future of Business Is Selling Less of More*. New York: Hyperion, 2006.
- . *Free: The Future of a Radical Price*. New York: Hyperion, 2009.
- Anderson, Philip, and Michael L. Tushman. "Technological Discontinuities and Dominant Designs: A Cyclical Model of Technological Change." *Administrative Science Quarterly* 35.4 (1990): 604-33.
- Andrejevic, Mark. *Reality TV: The Work of Being Watched*. New York: Rowman & Littlefield Publishers, Inc., 2004.
- Andrews, Jeff, and Nick Baker. "Xbox 360 System Architecture." *IEEE micro*. 26.2 (2006): 25.
- Asakura, Reiji. *Revolutionaries at Sony: The Making of the Sony Playstation and the Visionaries Who Conquered the World of Video Games*. New York: McGraw-Hill, 2000.
- Baba, Y., and F. Ted. Tschang. "Product Development in Japanese TV Game Software: The Case of an Innovative Game." *International Journal of Innovation Management* 5.4 (2001): 487-516.
- Bagdikian, Ben H. *The Media Monopoly*. Boston: Beacon Press, 2000.
- . *The New Media Monopoly*. Boston: Beacon Press, 2004.
- Bainbridge, William Sims. *The Warcraft Civilization: Social Science in a Virtual World*. Cambridge, Mass.: MIT Press, 2010.
- Balkin, Jack. "Mediating the Social Contradiction of the Digital Age". 2006. Crooked Timber. April 2, 2007. <<http://crookedtimber.org/2006/05/30/mediating-the-social-contradiction-of-the-digital-age/>>.
- Balkin, Jack and Beth Simone Noveck, ed. *The State of Play - Law, Games, and Virtual Worlds*. New York: NYU Press, 2006.
- Banks, J. "Keeping "Abreast" Of MTV and Viacom: The Growing Power of a Media Conglomerate." *A Companion to Television*. Ed. Janet Wasko. Malden: Blackwell, 2005. 256-69.
- Baumol, William J., John C. Panzar, and Robert D. Willig. *Contestable Markets and the Theory of Industry Structure*. New York: Harcourt Brace Jovanovich, 1982.
- Beinhocker, E. *The Origin of Wealth: Evolution, Complexity and the Radical Remaking of Economics*. Boston: Harvard Business School Press, 2006.
- Beinisch, Yischai, et al. "Digital Broadband Content the Online Computer and Video Game Industry". [Paris], 2005. Organisation for Economic Co-Operation and Development. <<http://www.sourceoecd.org/>>.
- Benjamin, Robert, and Rolf Wigand. "Electronic Markets and Virtual Value Chains on the Information Superhighway." *Sloan Management Review* 36.2 (1995): 62.
- Benjamin, Walter. "Das Kunstwerk Im Zeitalter Seiner Technischen Reproduzierbarkeit." *Zeitschrift für Sozialforschung* 5 (1936): 40-68.
- Benkler, Yochai. "Coase's Penguin, or, Linux and the Nature of the Firm." *Yale Law Journal* 112.3

- (2002): 369-446.
- . "Freedom in the Commons: Towards a Political Economy of Information." *Duke Law Journal* 52.6 (2003): 1245-77.
- . *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven: Yale University Press, 2006.
- Bermejo, Fernando. "Audience Manufacture in Historical Perspective: From Broadcasting to Google." *New Media & Society* 11.1-2 (2009): 1-2.
- Bettig, Ronald V. *Copyrighting Culture: The Political Economy of Intellectual Property*. Critical Studies in Communication and in the Cultural Industries. Boulder, Colo.: Westview Press, 1996.
- Bettig, Ronald V. and Jeanne Lynn Hall. *Big Media, Big Money: Cultural Texts and Political Economics*. Lanham: Rowman and Littlefield, 2003.
- Binken, Jeroen L.G., and Stefan Stremersch. "The Effect of Superstar Software on Hardware Sales in System Markets." *Journal of Marketing* 73.2 (2009): 88-104.
- Bissell, Tom. *Extra Lives: Why Video Games Matter*. New York: Pantheon Books, 2010.
- Björkegren, Dag. *The Culture Business: Management Strategies for the Arts-Related Business*. London; New York: Routledge, 1996.
- Blakely, Rhys. "Wii Are Swimming in a Clear Blue Ocean". 2007. The Times. July 4, 2010. <http://business.timesonline.co.uk/tol/business/industry_sectors/technology/article2063714.ece>.
- Bockstedt, Jesse. C., Kauffman, R. J. and Riggins, F. J. "The Move to Artist-Led on-Line Music Distribution: A Theory-Based Assessment and Prospects for Structural Changes in the Digital Music Market." *International Journal of Electronic Commerce* 10.3 (2006): 7-38.
- Boellstorff, Tom. *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*. Princeton: Princeton University Press, 2008.
- Bogost, Ian. *Unit Operations: An Approach to Videogame Criticism*. Cambridge, MA: The MIT Press, 2006.
- . *Persuasive Games: The Expressive Power of Videogames*. Cambridge, MA: MIT Press, 2007.
- Bogost, Ian, Ferrari, Simon and Bobby Schweizer. *Newsgames: Journalism at Play*. Cambridge, Mass.: The MIT Press, 2010.
- Bolin, Göran. "Media Technologies, Transmedia Storytelling and Commodification." *Ambivalence Towards Convergence: Digitalization and Media Change*. Ed. Tanja Storsul and Dagny Stuedahl Dagny. Göteborg: Nordicom, 2007. 237-48.
- Brightman, James. "Call of Duty: Modern Warfare 2 Will Yield over \$1 Billion in Just a Few Months". 2009a. (November 12, 2009): Industry Gamers. November 24 2009. <<http://www.industrygamers.com/news/call-of-duty-modern-warfare-2-will-yield-over-1-billion-in-just-a-few-months/>>.
- . "Call of Duty: Modern Warfare 2 Grosses \$550 Million in 5 Days". 2009b. (November 18, 2009): Industry Gamers. November 24 2009. <<http://www.industrygamers.com/news/call-of-duty-modern-warfare-2-grosses-550-million-in-5-days/>>.
- . "Big Bets on Big Budget Games". 2009c. (June 25): Industry Gamers. August 1 2009. <<http://www.industrygamers.com/galleries/big-bets-on-big-budget-games/>>.
- . "Peter Moore Likens Game Industry to 'Burning Oil Platform'". 2011. (February 4, 2011): Industry Gamers. April 10 2011. <<http://www.industrygamers.com/news/peter-moore-likens-game-industry-to-burning-oil-platform/>>.
- Brookey, Robert. "The Format Wars." *Convergence* 13.2 (2007): 199-211.
- . *Hollywood Gamers: Digital Convergence in the Film and Video Game Industries*. Bloomington: Indiana University Press, 2010.
- Brookey, Robert and Booth, Paul. "Restricted Play: Synergy and the Limits of Interactivity in the Lord of the Rings: The Return of the King Video Game." *Games and Culture* 1.3 (2006): 214-30.
- Brown, Clair, and Greg Linden. *Chips and Change: How Crisis Reshapes the Semiconductor Industry*. Cambridge, Mass.: MIT Press, 2009.
- Brown, Eric. *BMO Conference Presentation*. New York: BMO Digital Entertainment Conference, 2009.

- . *Electronic Arts*. San Francisco: Deutsche Bank Securities Technology Conference, 2010a.
- . *Interactive Entertainment Outlook: Packaged and Digital*. Scottsdale, AZ: Credit Suisse Annual Technology Conference, 2010b.
- Bruns, Axel. *Blogs, Wikipedia, Second Life, and Beyond: From Production to Producers*. New York: Peter Lang Publishing, 2008.
- Brynjolfsson, Erik, Yu Hu, and Michael D. Smith. "From Niches to Riches: Anatomy of the Long Tail - the Internet Marketplace Allows Companies to Produce and Sell a Far Wider Range of Products Than Ever Before. This Profoundly Changes Both Consumer Behavior and Business Strategy." *MIT Sloan management review*. 47.4 (2006): 67.
- Buckland, Warren. "The Role of the Auteur in the Age of Blockbusters." *Movie Blockbusters*. Ed. Julian Stringer. London: Routledge, 2003. 84-98.
- Bustamante, Enrique. "Cultural Industries in the Digital Age: Some Provisional Conclusions." *Media, Culture & Society* 2004.26 (2004): 6.
- Cao, Yong. and Downing, J. D. H. "The Realities of Virtual Play: Video Games and Their Industry in China." *Media Cult. Soc. Media, Culture and Society* 30.4 (2008): 515-29.
- Carlson, Rebecca. "Too Human Versus the Enthusiast Press: Video Game Journalists as Mediators of Commodity Value." *Transformative Works and Cultures* 2.1 (2009): <http://journal.transformativeworks.org/index.php/twc/article/view/98/93>.
- Castronova, Edward. *Synthetic Worlds - the Business and Culture of Online Games*. Chicago: The University of Chicago Press, 2005.
- . *Exodus to the Virtual World : How Online Fun Is Changing Reality*. New York: Palgrave Macmillan, 2007.
- Chan-Olmsted, Sylvia M. Chang Byeng-Hee. "Diversification Strategy of Global Media Conglomerates: Examining Its Patterns and Determinants." *Journal of Media Economics* 16.4 (2003): 213-33.
- Chatfield, Tom. *Fun Inc.: Why Games Are the 21st Century's Most Serious Business*. London: Virgin, 2011.
- Chee, Florence. "The Games We Play Online and Offline: Making Wang-Tta in Korea." *Popular Communication* 4.3 (2006): 225-39.
- Christensen, Clayton M. *The Innovator's Dilemma: The Revolutionary Book That Will Change the Way You Do Business*. New York: Collins Business Essentials, 2006.
- Clarke, Richard A. and Knake, Robert K. *Cyber War: The Next Threat to National Security and What to Do About It*. New York: Ecco, 2010.
- Coe, Neil M. Hess, Martin Yeung, Henry Wai-chung Dicken, Peter and Henderson, Jeffrey. "'Globalizing' Regional Development: A Global Production Networks Perspective." *Transactions of the Institute of British Geographers* 29.4 (2004): 468-84.
- Coleman, Sarah, and Nick Dyer-Witford. "Playing on the Digital Commons: Collectivities, Capital and Contestation in Videogame Culture." *Media, Culture & Society* 29.6 (2007): 934-53.
- Conley, James., Ed Andros, Priti Chinai, Elise Lipkowitz, and David Perez. "Use of a Game Over: Emulation and the Video Game Industry, a White Paper." *Northwestern Journal of Technology and Intellectual Property* 2.2 (2004): 261-90.
- Consalvo, Mia. "Cyber-Slaying Media Fans: Code, Digital Poaching, and Corporate Control of the Internet." *Journal of Communication Inquiry* 27.1 (2003): 67-86.
- . "Console Video Games and Global Corporations: Creating a Hybrid Culture." *New Media & Society* 8.1 (2006): 117-37.
- . *Cheating: Gaining Advantage in Videogames*. Cambridge: MIT Press, 2007.
- Copier, Marinka. "Beyond the Magic Circle: A Network Perspective on Role-Play in Online Games." PhD thesis. Universiteit Utrecht, 2007.
- Copier, Marinka and Raessens, Joost, ed. *Level Up: Digital Games Research Conference*. Utrecht, Holland: Universiteit Utrecht, 2003.
- Corneliussen, Hilde G. and Kill Walker Rettberg, ed. *Digital Culture, Play and Identity: A World of Warcraft Reader*. Cambridge, MA: MIT Press, 2008.
- Cragg, Arnold., Catherine Taylor and Ben Toombs. *Video Games - Research to Improve Understanding*

- of What Players Enjoy About Video Games, and to Explain Their Preferences for Particular Games*. London: British Board of Film Classification, 2007.
- Crandall, Robert W. and J. Gregory Sidak. *Video Games - Serious Business for America's Economy*. Washington, DC: Entertainment Software Association, 2006.
- Cucco, Marco. "The Promise Is Great: The Blockbuster and the Hollywood Economy." *Media Culture Society* 31.2 (2009): 215-30.
- Curtin, Michael. "On Edge: Culture Industries in the Neo-Network Era." *Making and Selling Culture*. Ed. Gage Averill Richard Ohmann, Michael Curtin, David Shumway and Elizabeth G. Traube. Hanover, NH: University Press of New England, 1997.
- Daidj, Nabyla and Thierry Isckia. "Entering the Economic Models of Game Console Manufacturers." *Communications and Strategies*. 73 (2009): 23-42.
- Davenport, Thomas H. & John C. Beck. *The Attention Economy: Understanding the New Currency of Business*. Boston, MA: Harvard Business School Press, 2001.
- Davidovici-Nora, M. "The Dynamics of Co-Creation in the Video Game Industry: The Case of World of Warcraft." *Communications and Strategies*. 73 (2009): 43-66.
- De Peuter, Greig and Nick Dyer-Witthford. "A Playful Multitude? Mobilising and Counter-Mobilising Immaterial Game Labour." *Fibreculture Journal* 3.5 (2005).
- Deshpande, Rohit. *Sony Playstation 2*. Boston: Harvard Business School, 2002.
- Deuze, Mark, Chase Bowen Martin and Christian Allen. "The Professional Identity of Gameworkers." *Convergence: The international journal of Research into new media technologies* 13.4 (2007): 335-53.
- Deuze, Mark. *Media Work*. Cambridge: Polity Press, 2007.
- DFC Intelligence. "New DFC Report: The Year in Review 2010". 2011. Industrygamers.com. January 25 2011. <<http://www.industrygamers.com/news/new-dfc-report-the-year-in-review-2010/>>.
- Donovan, Tristan. *Replay: The History of Video Games*. East Sussex, England: Yellow Ant, 2010.
- Dovey, Jon and Helen W. Kennedy. *Game Cultures: Computer Games as New Media*. Milton Keynes: Open University Press, 2006.
- Doyle, Gillian. *Media Ownership: The Economics and Politics of Convergence and Concentration in the UK and European Media*. London: Sage, 2002.
- Dyer-Witthford, Nick, and Greig De Peuter. *Games of Empire: Global Capitalism and Video Games*. Minneapolis: University of Minnesota Press, 2009.
- Dyer-Witthford, Nick and Zena Sharman. "The Political Economy of Canada's Video and Computer Game Industry." *Canadian Journal of Communication* 30.2 (2005): 187-210.
- Dymek, Mikolaj. "Industrial Phantasmagoria: Subcultural Interactive Cinema Meets Mass-Cultural Media of Simulation." Royal Institute of Technology Stockholm, 2010.
- Ederly, David and Ethan Mollick. *Changing the Game: How Video Games Are Transforming the Future of Business*. Upper Saddle River, N.J: FT Press, 2009.
- Egenfeldt-Nielsen, Simon, Jonas Heide Smith and Susana Pajares Tosca. *Understanding Video Games: The Essential Introduction*. New York: Routledge, 2008.
- Eisenmann, Thomas R., G. Parker, and M. W. Van Alstyne. "Strategies for Two-Sided Markets." *Harvard Business Review* 84.10 (2006): 92-101.
- Eisenmann, Thomas R. "Managing Proprietary and Shared Platforms." *California Management Review* 50.4 (2008): 31-53.
- Eisenmann, Thomas R., Geoffrey Parker and Marshall Van Alstyne. "Opening Platforms: How, When and Why?" *Platforms, Markets and Innovation*. Ed. Annabelle Gawer. Cheltenham: Edward Elgar, 2009. 131-62.
- Elberse, Anita. "Should You Invest in the Long Tail?" *Harvard Business Review* 86.7-8 (2008): 88-96+161.
- Electronic Arts Inc. *Electronic Arts Inc. Fiscal Year 2008 Proxy Statement and Annual Report*. Redwood City, CA, 2008.
- . "Electronic Arts Ceo Discusses Q3 2011 Earnings Call Transcript". 2011. Seeking Alpha. February 5 2011. <<http://seekingalpha.com/article/250137-electronic-arts-ceo-discusses-q3-2011->

- earnings-call-transcript>.
- Elsaesser, Thomas. "Specularity and Engulfment: Francis Ford Coppola and Bram Stoker's Dracula." *Contemporary Hollywood Cinema*. Ed. S. Neale and M. Smith. London: Routledge, 1998. 111-44.
- Eskelinen, Markku. "The Gaming Situation." *Game Studies* 1.1 (2001).
- Evans, David S., Andrei Hagiu, and Richard Schmalensee. *Invisible Engines: How Software Platforms Drive Innovation and Transform Industries*. Cambridge, Mass.: MIT Press, 2006.
- Festing, Jon. *Video Game Law*. Information Technology Law. Ed. Sunny Handa. Markham: LexisNexis Canada, 2005.
- Fine, Charles H. *Clockspeed: Winning Industry Control in the Age of Temporary Advantage*. Reading, Mass.: Perseus Books, 1998.
- Fiske, John. *Television Culture*. London: Routledge, 1987.
- Fleder, Daniel, and Kartik Hosanagar. "Blockbuster Culture's Next Rise or Fall: The Impact of Recommender Systems on Sales Diversity." *Management science*. 55.5 (2009): 697.
- Flew, Terry. *New Media: An Introduction*. 3rd ed. Oxford: Oxford University Press, 2008.
- Flichy, Patrice. *Les Industries De L'imaginaire: Pour Une Analyse Économique Des Médias*. Grenoble: P. Universitaires, Inst. National de l'Audiovisuel, 1980.
- Frank, Robert H., and Philip J. Cook. *The Winner-Take-All Society: Why the Few at the Top Get So Much More Than the Rest of Us*. New York: Penguin Books, 1996.
- Friedman, Thomas L. *The World Is Flat: A Brief History of the Twenty-First Century*. New York: Farrar, Straus and Giroux, 2005.
- Fritz, Ben. "Call of Duty: Modern Warfare 2 Video Game Gets Hollywood-Scale Launch." *LA Times* 2009.
- . "Carl Icahn Is Poised to Win Some Control over Take-Two Interactive." *LA Times* April 13. 2010, sec. Business: <http://articles.latimes.com/2010/apr/13/business/la-fi-ct-taketwo13-10apr13/3>.
- Gaider, David, and BioWare Corp. *Dragon Age: The Stolen Throne*. New York: BioWare, 2009.
- Gallagher, Scott., and S. H. Park. "Innovation and Competition in Standard-Based Industries: A Historical Analysis of the U.S. Home Video Game Market." *IEEE Transactions on Engineering Management* 49 (2002): 67-82.
- Garnham, Nicholas. *Capitalism and Communication: Global Culture and the Economics of Information*. The Media, Culture and Society Series. Ed. et al. Collins. London: Sage, 1990.
- . *Emancipation, the Media, and Modernity: Arguments About the Media and Social Theory*. Oxford: Oxford University Press, 2000.
- Garvin, David A. "Blockbusters: The Economics of Mass Entertainment." *Journal of Cultural Economics* 5.1 (1981): 1-20.
- Gawer, Annabelle, ed. *Platforms, Markets and Innovation*. Cheltenham: Edward Elgar, 2009.
- Gawer, Annabelle, and Michael A. Cusumano. *Platform Leadership: How Intel, Microsoft, and Cisco Drive Industry Innovation*. Boston, Mass.: Harvard Business School Press, 2002.
- Gereffi, Gary. "International Trade and Industrial Upgrading in the Apparel Commodity Chain." *Journal of International Economics* 48.1 (1999): 37-70.
- Gershenfeld, Alan, Mark Loparco, and Cecilia Barajas. *Game Plan: The Insider's Guide to Breaking in and Succeeding in the Computer and Video Game Business*. New York: St. Martin's Griffin, 2003.
- Gillmor, Dan. *We the Media: Grassroots Journalism by the People, for the People*. Cambridge: O'Reilly, 2006.
- Gitlin, Todd. *Inside Prime Time*. New York: Pantheon Books, 1983. 1994.
- Glas, René. "Van Pong to Playstation: De Geschiedenis Van Computerspellen". *Tijdschrift voor Mediageschiedenis* 7.2 (2004): 9-30.
- . "Games of Stake: Control, Agency and Ownership in World of Warcraft". PhD thesis. University of Amsterdam, 2010.
- Golding, Peter and Murdock, Graham. "Theories of Communication and Theories of Society" *Communication Research* 5.3 (1978): 339-56.
- . "Culture, Communications, and Political Economy." *Mass Media and Society*. Ed. J. and M.

- Gurevitch Curran. London: Arnold, 1996. 11-30.
- Gomery, Douglas. "The Hollywood Blockbuster: Industrial Analysis and Practice." *Movie Blockbusters*. Ed. Julian Stringer. London: Routledge, 2003. 72-83.
- Gore, Albert. *The Assault on Reason*. New York: Penguin Press, 2007.
- Grantham, A., and R. Kaplinsky. "Getting the Measure of the Electronic Games Industry: Developers and the Management of Innovation." *International Journal of Innovation Management* 9.2 (2005): 183-214.
- Grossman, Lev. "Time's Person of the Year: You". Time.com, 2006. *Time*.
<<http://www.time.com/time/magazine/article/0,9171,1569514,00.html>>.
- Günster, Shane. "Revisiting the Culture Industry Thesis: Mass Culture and the Commodity Form." *Cultural Critique* 45.2 (2000): 40-70.
- . *Capitalizing on Culture: Critical Theory for Cultural Studies*. Toronto: University of Toronto Press, 2004.
- Hagen, Ingunn and Janet Wasko. *Consuming Audiences?: Production and Reception in Media Research*. Cresskill: Hampton Press, 2000.
- Hardt, Michael and Antonion Negri. *Empire*. Cambridge, MA: Harvard University Press, 2000.
- Hargadon, Andrew. *How Breakthroughs Happen: The Surprising Truth About How Companies Innovate*. Boston, Mass.: Harvard Business School Press, 2003.
- Harrigan, Pat, and Noah Wardrip-Fruin. *Third Person: Authoring and Exploring Vast Narratives*. Cambridge, Mass.: MIT Press, 2009.
- Hartley, John. "From the Consciousness Industry to the Creative Industries: Consumer-Created Content, Social Network Markets, & the Growth of Knowledge." *Media Industries: History, Theory & Method*. Ed. Jennifer Holt and Alisa Perren. Malden MA: Wiley-Blackwell, 2009. 231-44.
- Hassler-Forest, Dan. "Superheroes and the Bush Doctrine: Narrative and Politics in Post-9/11 Discourse." PhD thesis. University of Amsterdam, 2011.
- Hayward, Jennifer. *Consuming Pleasures: Active Audiences and Serial Fictions from Dickens to Soap Opera*. Lexington: University press of Kentucky, 1997.
- Herman, Leonard. "Early Home Video Game Systems." *The Video Game Explosion: A History from Pong to Playstation and Beyond*. Ed. Mark J.P. Wolf. Westport, CT: Greenwood Press, 2008. 53-58.
- Herz, Judith C. *Joystick Nation: How Videogames Ate Our Quarters, Won Our Hearts, and Rewired Our Minds*. New York: Little, Brown & Company, 1997.
- Hesmondhalgh, David. "The British Dance Music Industry: A Case Study of Independent Cultural Production." *The British Journal of Sociology*. 49.2 (1998): 234.
- . *The Cultural Industries*. London: Sage, 2002.
- . *The Cultural Industries*. 2nd ed. London: Sage, 2007.
- Hills, Matt. *Fan Cultures*. London; New York: Routledge, 2002.
- Hirsch, Paul M. "Processing Fads and Fashion: An Organization-Set Analysis of Cultural Industry Systems." *American Journal of Sociology* 77.4 (1972): 639-59.
- Hirshberg, Eric. "Activision Blizzard CEO Discusses Q3 2010 Results - Earnings Call Transcript". 2010. Seeking Alpha. January 6 2011. <<http://seekingalpha.com/article/234918-activision-blizzard-ceo-discusses-q3-2010-results-earnings-call-transcript>>.
- Holt, Jennifer and Perren, Alisa. *Media Industries: History, Theory, and Method*. Chichester, West Sussex; Malden, MA: Wiley-Blackwell, 2009.
- Hoskins, Colin, Stuart McFadyen, and Adam Finn. *Media Economics: Applying Economics to New and Traditional Media*. London: SAGE, 2004.
- Jonas Heide Smith and Miguel Sicart ed. *Commodifying Culture - It's Not Just About the Virtual Sword. Other Players*. 2004. IT University of Copenhagen.
- Humphreys, Sal. "Massively Multiplayer Online Games Productive Players and Their Disruptions to Conventional Media Practices." Ph.D. Queensland University of Technology, 2005.
- . "Norrath: New Forms, Old Institutions." *Game Studies* 9.1 (2009).
- Inoue, Osamu. *Nintendo Magic: Winning the Videogame Wars*. New York: Vertical, 2010.

- Ip, Barry. "Technological, Content, and Market Convergence in the Games Industry." *Games and Culture* 3.2 (2008): 199-224.
- Ireland, Duane R. and Justin W. Webb. "Strategic Entrepreneurship: Creating Competitive Advantage through Streams of Innovation." *Business Horizons* 50 (2007): 49-59.
- ISFE. *Video Gamers in Europe - 2007*. Brussels: Interactive Software Federation of Europe (ISFE), 2007.
- Ivan, Tom. "Microsoft: Blu-Ray Absence Boosted Xbox 360." *EDGE* 2010: 13.
- Janssen, Skylla, and Micha van der Meer. *Professional Playground: Alles over Werken in De Game-Industrie*. Den Haag: Boom Lemma, 2010.
- Jari, Laarni and Ravaja Niklas, Saari Timo. "Presence Experience in Mobile Gaming." *Changing Views: Worlds in Play*. DiGRA Digital Library.
- Jarvis, Jeff. *What Would Google Do?* New York, NY: Collins Business, 2009.
- Jenkins, Henry. *Textual Poachers: Television Fans & Participatory Culture*. London: Routledge, 1992.
- . "The Cultural Logic of Media Convergence." *International Journal of Cultural Studies* 7.1 (2004): 33-43.
- . *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press, 2006a.
- . *Fans, Bloggers, and Gamers: Exploring Participatory Culture*. New York: New York University Press, 2006b.
- Jeppesen, Lars Bo., Måns J. Molin. "Consumers as Co-Developers: Learning and Innovation Outside the Firm." *Technology Analysis and Strategic Management* 15.3 (2003): 363-83.
- Jeppesen, Lars Bo. "Profiting from Innovative User Communities: How Firms Organize the Production of User Modifications in the Computer Games Industry". Copenhagen, 2004. 18 December 2006. <<http://www.cbs.dk/departments/ivs/wp/wp.shtml>>.
- . "User Toolkits for Innovation: Consumers Support Each Other." *Journal of Innovation Management* 22 (2005): 347-62.
- Jin, Dal Yong. *Korea's Online Gaming Empire*. Cambridge, Mass.: MIT Press, 2010.
- Johns, Jennifer. "Video Games Production Networks: Value Capture, Power Relations and Embeddedness" *Journal of Economic Geography* 6.2 (2006): 151-80.
- Jones, Steven E. *The Meaning of Video Games : Gaming and Textual Strategies*. London: Routledge, 2008.
- Juul, Jesper. *Half-Real: Video Games between Real Rules and Fictional Worlds*. Cambridge: MIT Press, 2005.
- . *A Casual Revolution: Reinventing Video Games and Their Players*. Cambridge: MIT Press, 2010.
- Kaplinsky, Raphael and Mike Morris. "A Handbook for Value Chain Research." Brighton: Institute of Development Studies, 2001.
- Keen, Andrew and David Weinberger. "The Good, the Bad, and the 'Web 2.0'." *The Wall Street Journal* 2007, Online ed.
- Keij, Marcel. "De Marketingdirecteur." *Professional Playground: Alles over Werken in De Game-Industrie*. Ed. Skylla Janssen and Micha van der Meer. Den Haag: Boom Lemma, 2010. 145-74.
- Kellner, Douglas. "The Frankfurt School and British Cultural Studies: The Missed Articulation." *Rethinking the Frankfurt School: Alternative Legacies of Cultural Critique*. Ed. Jeffrey T Nelson and Caren Irr. Albany: Suny press, 2002. 31-58.
- Kent, Steven. *The Ultimate History of Videogames: From Pong to Pokemon - the Story Behind the Craze That Touched Our Lives and Changed the World*. Roseville: Prisma Publishing, 2001.
- Kerr, Aphra. *The Business and Culture of Digital Game - Gamework/Gameplay*. London: Sage, 2006.
- Kim, W. Chan, and Rene Mauborgne. *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant*. Boston, Mass.: Harvard Business School Press, 2005.
- Kline, Stephen, Nick Dyer-Witherford, and Greig De Peuter. *Digital Play: The Interaction of Technology, Culture, and Marketing*. London: McGill-Queen's University Press, 2003.
- Kohler, Chris. "As Mobile Games Rise, Studios Fear for Blockbusters' Future". Atlanta, GA, 2011. CNN.com. March 3 2011. <http://articles.cnn.com/2011-02-16/tech/games.blockbuster.studios.wired_1_mobile-games-gaming-industry-dice-summit>.

- Kompare, Derek. *Rerun Nation: How Repeats Invented American Television*. New York: Routledge, 2005.
- . "Publishing Flow." *Television & New Media* 7.4 (2006): 335-60.
- . *CSI*. Malden, MA: Wiley-Blackwell, 2010.
- Kontour, Kyle. "Myths of Neoconservatism and Privatization in World of Warcraft." *Refractory: A journal of entertainment media* 16 (2009).
- Kotick, Robert. "Activision Blizzard, Inc. At Deutsche Bank Securities Technology Conference". San Francisco, 2009. September 14, 2009 October 20, 2009.
- Kotick, Robert et al. "ATVI - Activision-Vivendi Announcement Webcast". 2007. July 1 2008. <<http://www.secmf.com/d11MXs.u2kTx.htm>>.
- Kroonstuijver, Martijn. "De Pr-Manager." *Professional Playground: Alles over Werken in De Game-Industrie*. Ed. Skylla Janssen and Micha van der Meer. Den Haag: Boom Lemma, 2010. 175-202.
- Jonas Heide Smith and Miguel Sicart ed. *Other Playings - Cheating in Computer Games*. Other Players. 2004. IT University of Copenhagen.
- Kücklich, Julian. "Precarious Playbour: Modders and the Digital Games Industry." *Fibreculture Journal* 3.5 (2005).
- . "Playing with the Rules – a Gamer's Guide to Deludology." University of Ulster, 2007.
- . "Virtual Worlds and Their Discontents." *Games and Culture* 4.4 (2009): 340-52.
- Kushner, David. *Masters of Doom: How Two Guys Created an Empire and Transformed Pop Culture*. New York: Random House, 2003.
- Kutner, Lawrence and Cheryl K. Olson. *Grand Theft Childhood: The Surprising Truth About Violent Video Games and What Parents Can Do*. New York: Simon & Schuster, 2008.
- Lastowka, F. Gregory. *Virtual Justice: The New Laws of Online Worlds*. New Haven: Yale University Press, 2010.
- Latour, Bruno. "On Recalling Ant." *Actor Network Theory and After*. Ed. John and Hassard Law, John. Oxford [England]; Malden, MA: Blackwell/Sociological Review, 1999. 15-25.
- Lauwaert, Maaïke. "The Place of Play: Toys and Digital Cultures". Amsterdam, 2009. Amsterdam University Press.
- Leadbeater, Charles. *We-Think: The Power of Mass Creativity*. London: Profile, 2007.
- Lee, Robin S. "Vertical Integration and Exclusivity in Two-Sided Markets". 2009. *NET Institute Working Paper No. 07-39*. <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1022682#>.
- Lessig, Lawrence. *Remix: Making Art and Commerce Thrive in the Hybrid Economy*. London: Penguin Press, 2008.
- Lewis, Jon. "Following the Money in America's Sunniest Company Town: Some Notes on the Political Economy of the Hollywood Blockbuster." *Movie Blockbusters*. Ed. Julian Stringer. London: Routledge, 2003. 61-71.
- Leyshon, Andrew. "Time - Space (and Digital) Compression: Software Formats, Musical Networks, and the Reorganisation of the Music Industry." *Environment and Planning A* 33.1 (2001): 49-77.
- Li, Charlene and Josh Bernoff. *Groundswell: Winning in a World Transformed by Social Technologies*. Boston, MA: Harvard Business School Press, 2008.
- Litman, Barry R. "The Television Networks, Competition and Program Diversity." *Journal of Broadcasting* 23.4 (1979): 393 - 409.
- Ludlow, Peter and Mark Wallace. *The Second Life Herald: The Virtual Tabloid That Witnessed the Dawn of the Metaverse*. Cambridge: MIT Press, 2007.
- Lugo, Jairo and Tony Sampson and Merlyn Lossada "Latin America's New Cultural Industries Still Play Old Games: From the Banana Republic to Donkey Kong" *Game Studies* 2.2 (2002).
- Malaby, Thomas M. *Making Virtual Worlds: Linden Lab and Second Life*. Ithaca: Cornell University Press, 2009.
- Manovich, Lev. *The Language of New Media*. Cambridge: MIT Press, 2001.
- Mansell, Robin. "Political Economy, Power and New Media." *New Media & Society* 6.1 (2004): 96-105.
- Martin, Roger. "The Age of Customer Capitalism." *Harvard Business Review* 88.1-2 (2010): 58-65.
- Marx, Karl. *Capital: An Abridged Edition*. 1867. Oxford: Oxford University Press, 1999.

- Marx, Karl and Friedrich Engels. *The Communist Manifesto*. 1848. London: Penguin Books Ltd, 2002.
- Mäyrä, Frans, ed. *CGDC Conference Proceedings*. Tampere: Tampere University Press, 2002.
- McChesney, Robert W. *Rich Media, Poor Democracy: Communication Politics in Dubious Times*. New York: The New Press, 2000.
- . *Communication Revolution: Critical Junctures and the Future of Media*. New York: New Press, 2007.
- . *The Political Economy of Media - Enduring Issues, Emerging Dilemma's*. New York: Monthly Review Press, 2008.
- McHugh, Josh. "The Xbox Reloaded." *Wired*. 13.6 (2005): 142.
- Meehan, Eileen R. "'Holy Commodity Fetish, Batman!': The Political Economy of a Political Intertext." *The Many Lives of the Batman: Critical Approaches to a Superhero and His Media*. Ed. Roberta E. Pearson, and William Uricchio. New York: Routledge, 1991.
- . "Watching Television: A Political Economic Approach." *A Companion to Television*. Ed. Janet Wasko. Malden: Blackwell, 2005. 238-55.
- . "Commodity, Culture, Common Sense: Media Research and Paradigm Dialogue." *The Journal of Media Economics* 12.2 (1999): 149-63.
- Meehan, Eileen R. Vincent Mosco and Janet Wasko. "Rethinking Political Economy: Change and Continuity." *Journal of Communication* 43.4 (1993): 105-16.
- Merel, Tim and Graham Smith. *Global Video Games Fundraising, Investment, M&A and JV Review*. London: IBIS Capital, 2010.
- Meunier, Nathan. "Littlebigplanet Levels Getting Axed". 2008. The Escapist. June 2 2010. <<http://www.escapistmagazine.com/news/view/87394-LittleBigPlanet-Levels-Getting-Axed>>.
- Meyers, Cynthia B. "From Sponsorship to Spots: Advertising and the Development of Electronic Media." *Media Industries: History, Theory & Method*. Ed. Jennifer Holt and Alisa Perren. Malden MA: Wiley-Blackwell, 2009. 69-80.
- Microsoft Corp. *Microsoft Corporation Annual Report 2006*. Redmond: Microsoft, 2007.
- . *Earnings Release Fy10 Q4*. Redmond, 2010.
- Miège, Bernard. *The Capitalization of Cultural Production*. New York: International General, 1989.
- Miège, Bernard and Nicolas Garnham. "The Cultural Commodity." *Media, Culture and Society* 1.3 (1979): 297-311.
- Molesworth, Mike. "Adults' Consumption of Videogames as Imaginative Escape from Routine." *Advances in Consumer Research*. 36 (2009): 378-83.
- Molesworth, Mike and Janice Denegri-Knott. "Digital Play and the Actualization of the Consumer Imagination." *Games and Culture* 2.2 (2007): 114-33.
- Montfort, Nick and Ian Bogost. *Racing the Beam: The Atari Video Computer System*. Platform Studies. Cambridge: MIT Press, 2009.
- Moran, Albert. *TV Formats Worldwide: Localizing Global Programs*. Bristol, UK; Chicago, IL: Intellect, 2009.
- Morozov, Evgeny. *The Net Delusion: The Dark Side of Internet Freedom*. New York, NY: PublicAffairs, 2011.
- Morris, Jonathan, John Hassard, and Leo McCann. "The Resilience of 'Institutionalized Capitalism': Managing Managers under 'Shareholder Capitalism' and 'Managerial Capitalism'." *Human Relations* 61.5 (2008): 687-710.
- Morris-Suzuki, Tessa. *Beyond Computopia - Information, Automation and Democracy in Japan*. London: Kegan Paul, 1998.
- Mosco, Vincent. *The Political Economy of Communication: Rethinking and Renewal*. London: Sage, 1996.
- . *The Political Economy of Communication*. London: Sage, 2009.
- Murphy, Sheila C. "'This Is Intelligent Television' - Early Video Games and Television in the Mergence of the Personal Computer." *The Video Game Theory Reader 2*. Ed. Bernard and Wolf Perron, Mark J. P. New York: Routledge, 2009. 197-212.
- Nair, Harikesh. "Intertemporal Price Discrimination with Forward-Looking Consumers: Application to the Us Market for Console Video-Games." *Quantitative Marketing and Economics* 5.3 (2007):

- 239-92.
- Nardi, Bonnie A. *My Life as a Night Elf Priest: An Anthropological Account of World of Warcraft*. Ann Arbor: University of Michigan Press: University of Michigan Library, 2010.
- Nathan, John. *Sony: The Private Life*. Boston, Mass.: Houghton Mifflin, 1999.
- Neff, Gina and David Stark. "Permanently Beta: Responsive Organization in the Internet Era." *Society Online: The Internet in Context*. Ed. Philip N. and Steve Jones Howard. Thousand Oaks, CA: Sage, 2004. 173-88.
- Negus, Keith. *Producing Pop: Culture and Conflict in the Popular Music Industry*. New York: E. Arnold, 1992.
- Newman, James. *Videogames*. London: Routledge, 2004.
- . *Playing with Videogames*. London: Routledge, 2008.
- Nieborg, David B. *Am I Mod or Not? - an Analysis of First Person Shooter Modification Culture*. Creative Gamers Seminar - Exploring Participatory Culture in Gaming. January 11-12 2005a.
- . "Changing the Rules of Engagement - Tapping into the Popular Culture of America's Army, the Official U.S. Army Computer Game." MA thesis. Utrecht University, 2005b.
- . "The Expansion Pack Economy." *Media Change and Social Theory Conference*, 2006a.
- . "Games and Advertisement - Beyond Billboards and Banners." *Information Communication Technologies and Emerging Business Strategies*. Ed. Shenja van der Graaf & Yuichi Washida. Hershey, PA: Idea Publishing Group, 2006b. 97-118.
- . "Waarom Betaal Je Eigenlijk Zoveel Voor Een Nieuw Spel? – Goedkoper Dan Naar De Film." *Dagblad De Pers* January 19. 2009, sec. Spelen: 14.
- . "Gamejournalistiek in Nederland." *Professional Playground: Alles over Werken in De Game-Industrie*. Ed. Skylla Janssen and Micha van der Meer. Den Haag: Boom Lemma, 2010. 207-33.
- Nieborg, David. B. and Shenja van der Graaf. "The Mod Industries?: The Industrial Logic of Non-Market Game Production." *European Journal of Cultural Studies* 11.2 (2008): 177-95.
- Nieborg, David B. and Joke Hermes. "What Is Game Studies Anyway?" *European Journal of Cultural Studies* 11.2 (2008): 131-46.
- Nieborg, David. B. and Tanja Sihvonen. "The New Gatekeepers? On the Occupational Ideology of Game Journalism." *DiGRA 2009 - Breaking New Ground: Innovation in Games, Play, Practice and Theory*.
- Nielsen. "What Americans Do Online: Social Media and Games Dominate Activity". 2010. Nielsen Wire. August 24 2010. <http://blog.nielsen.com/nielsenwire/online_mobile/what-americans-do-online-social-media-and-games-dominate-activity/>.
- . *Video Gamers in Europe - 2007*. Brussels: Interactive Software Federation of Europe (ISFE), 2007.
- O'Brien, Jeffrey M. "The Making of the Xbox." *Wired*. 9.11 (2001): 142.
- . "Wii Will Rock You". 2007. Fortune. July 2010. <http://money.cnn.com/magazines/fortune/fortune_archive/2007/06/11/100083454/index.htm>.
- O'Donnell, Casey. "The Work/Play of the Interactive New Economy: Video Game Development in the United States and India." Rensselaer Polytechnic Institute, 2008.
- O'Gorman, Patricio. "Wii: Creating a Blue Ocean the Nintendo Way." *Palermo Business Review* 1.2 (2008): 97-107.
- OECD. "Oslo Manual Guidelines for Collecting and Interpreting Innovation Data". Paris, 2005. OECD.
- Oosterbaan, Olivier. *Auteursrecht Voor De Gamesindustrie*. Den Haag: Boom Juridische Uitgevers, 2011.
- Ortner, Sherry. B. "Studying Sideways: Ethnographic Access in Hollywood." *Production Studies: Cultural Studies of Media Industries*. Ed. Miranda J. Banks and John Thornton Caldwell Vicki Mayer. Vol. Routledge. New York, 2009. 175-89.
- Pachter, Michael and Edward Woo. *Field of Dreams - Dream or Reality: An in-Depth Look at Adoption of the New Interactive Entertainment Technology*. Los Angeles: Wedbush Morgan Securities, 2005.
- . *Money for Nothing: How Ancillary Revenues Can Extend the Console Cycle*. Los Angeles: Wedbush

- Morgan, 2009.
- Page, William H. and John E. Lopatka. "Network Externalities." *Encyclopedia of Law and Economics*. Ed. Boudewijn & Geest Bouckaert, Gerrit de. Cheltenham, UK; Northampton, MA: Edward Elgar, 2000. 952-80.
- Pausch, Randy. "An Academic's Field Guide to Electronic Arts: Observations Based on a Residency in the Spring Semester of 2004". 2004. Carnegie Mellon University. May 15 2006. <<http://www.andrew.cmu.edu/user/tshah/PauschAcademicsFieldGuideToEA.pdf>>.
- Pearson, Roberta E., ed. *Reading Lost: Perspectives on a Hit Television Show*. London: I. B. Tauris, 2009.
- Pine, B. Joseph. *Mass Customisation - the New Frontier in Business Competition*. Boston, MA: Harvard Business School Press, 1993.
- Porter, Michael E. *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: The Free Press, 1985.
- . *The Competitive Advantage of Nations*. New York: Free Press, 1990.
- Postigo, Hector. "From Pong to Planet Quake: Post-Industrial Transitions from Leisure to Work." *Information, Communication & Society* 6.4 (2003): 593-607.
- . "Of Mods and Modders." *Games and Culture* 2.4 (2007): 300-13.
- . "Video Game Appropriation through Modifications." *Convergence* 14.1 (2008): 59-74.
- Potts, Jason., Stuart Cunningham, John Hartley and Paul Ormerod. "Social Network Markets: A New Definition of the Creative Industries " *Journal of Cultural Economics* 32.3 (2008): 167-85.
- Prahalad, C.K. and Ramaswamy, Venkatram. "Co-Creation Experiences: The New Practice in Value Creation." *Journal of Interactive Marketing* 18.3 (2004): 5-14.
- PricewaterhouseCoopers. *Global Entertainment and Media Outlook 2009-2013*. London: PricewaterhouseCoopers, 2009.
- Prindle, David F. *Risky Business: The Political Economy of Hollywood*. Boulder: Westview, 1993.
- Prügl, Reinhard and Martin Schreier. "Learning from Leading-Edge Customers at the Sims: Opening up the Innovation Process Using Toolkits." *R&D Management* 36.3 (2006): 237-50.
- Purchase, Robert. ""Closed" Xbox Live Blocked FFXIV". 2010. Eurogamer. October 2 2010. <<http://www.eurogamer.net/articles/closed-xbox-live-blocked-ffxiv>>.
- Qualman, Erik. *Socialnomics: How Social Media Transforms the Way We Live and Do Business*. Hoboken, N.J.: Wiley, 2009.
- Raessens, Joost. "Computer Games as Participatory Media Culture." *Handbook of Computer Game Studies*. Ed. Joost Raessens and Jeffrey Goldstein. Cambridge/London: MIT Press, 2005. 373-88.
- Raman, Manikandan. "Call of Duty: Black Ops Sales Top \$1 Bln". 2010. (December 22): International Business Times. March 15 2011. <<http://www.ibtimes.com/articles/94558/20101222/activision-video-game-shooting-game-call-of-duty-black-ops-call-of-duty-modern-warfare-2-xbox-360-pl.htm#ixzz1H8BFVpfN>>.
- Ransom-Wiley, J. "Download Oblivion's Horse Armor, for a Price". 2006. Joystiq. August 8 2009. <<http://www.joystiq.com/2006/04/03/download-oblivions-horse-armor-for-a-price>>.
- Ravid, Abraham S. "Film Production in the Digital Age - What Do We Know About the Past and the Future." *A Concise Handbook of Movie Industry Economics*. Ed. Charles C. Moul. Cambridge; New York: Cambridge University Press, 2005. 32-58.
- Readman, Jeff, and Andrew Grantham. "Shopping for Buyers of Product Development Expertise." *European Management Journal*. 24.4 (2006): 256.
- Rettberg, Scott. "Corporate Ideology in World of Warcraft." *Digital Culture, Play and Identity: A World of Warcraft Reader*. Ed. Hilde G. Corneliussen and Kill Walker Rettberg. Cambridge, MA: MIT Press, 2008. 19-38.
- Reynolds, Glenn. *An Army of Davids - How Markets and Technology Empower Ordinary People to Beat Big Media, Big Government and Other Goliaths*. Nashville: Nelson Current, 2006.
- Riccitiello, John. "Electronic Arts at Bank of America/Merrill Lynch Media, Communications & Entertainment Conference". Newport Beach, CA, 2010. <<http://www.investor.ea.com>>.
- Rifkin, J. *The Age of Access: The New Culture of Hypercapitalism, Where All of Life Is a Paid-for Experience*. Harmondsworth: Penguin, 2000.

- Robinson, Andy. "Activision "Didn't Want Modern Warfare"". 2009. CVG. Future Publishing April 10 2010. <<http://www.computerandvideogames.com/article.php?id=224900>>.
- Rochet, Jean-Charles, and Jean Tirole. "Platform Competition in Two-Sided Markets." *Journal of the European Economic Association* 1.4 (2003): 990-1029.
- Rogers, Everett M. *Diffusion of Innovations*. New York: Free Press, 2003.
- Rosen, Emanuel. *The Anatomy of Buzz: How to Create Word-of-Mouth Marketing*. New York: Doubleday/Currency, 2000.
- Rosen, Sherwin. "The Economics of Superstars." *The American Economic Review* 71.5 (1981): 845-58.
- Ryan, Bill. *Making Capital from Culture: The Corporate Form of Capitalist Cultural Production*. Berlin: De Gruyter, 1991.
- Salen, Katie, and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. Cambridge, Mass.: MIT Press, 2003.
- Schäfer, Mirko Tobias. *Bastard Culture!: How User Participation Transforms Cultural Production*. Amsterdam: Amsterdam University Press, 2011.
- Schatz, Thomas. "The New Hollywood." *Movie Blockbusters*. Ed. Julian Stringer. London: Routledge, 2003. 15-44.
- Schell, Jesse. *The Art of Game Design: A Book of Lenses*. Amsterdam; Boston: Elsevier/Morgan Kaufmann, 2008.
- Schilling, Melissa A. "Technological Leapfrogging: Lessons from the U.S. Video Game Console Industry." *California Management Review* 45 (2003): 6-32.
- Schulze, Gunther G. "Superstars." *A Handbook of Cultural Economics*. Ed. Ruth Towse. Cheltenham, UK; Northampton, MA: Edward Elgar, 2003. 431-36.
- Schwartz, Barry. "The Paradox of Choice Why More Is Less". Pymble: New York, 2007. HarperCollins e-books.
- Seybold, Patrick. "PS3 Firmware (V3.21) Update". 2010. Playstation.com. June 2 2010. <<http://blog.us.playstation.com/2010/03/28/ps3-firmware-v3-21-update/>>.
- Shankar, Venkatesh and Barry L. Bayus. "Network Effects and Competition: An Empirical Analysis of the Home Video Game Industry." *Strategic Management Journal* 24 (2003): 375-84.
- Shapiro, Carl, and Hal R. Varian. *Information Rules: A Strategic Guide to the Network Economy*. Boston, Mass.: Harvard Business School Press, 1998.
- Sheff, David. *Game Over: Press Start to Continue*. 1993. Wilton, CT: Cyberactive Publishing, 1999.
- Shippy, David and Mickie Phipps. *The Race for a New Game Machine: Creating the Chips inside the Xbox and the Playstation 3*. New York: Kensington Publishing Corporation, 2009.
- Shirky, Clay. *Here Comes Everybody: The Power of Organizing without Organizations*. New York: Penguin Press, 2008.
- . *Cognitive Surplus: Creativity and Generosity in a Connected Age*. New York: Penguin Press, 2010.
- Sicart, Miguel. *The Ethics of Computer Games*. Cambridge, MA: MIT Press, 2009.
- Sihvonen, Tanja. *Players Unleashed! Modding the Sims and the Culture of Gaming*. Amsterdam: Amsterdam University Press, 2011.
- Siwek, Stephen E. *Video Games in the 21st Century*. Washington, DC: Entertainment Software Association, 2010.
- Skopal, Pavel. "The Adventure Continues on Dvd': Franchise Movies as Home Video." *Convergence: The international journal of Research into new media technologies* 13.2 (2007): 185-98.
- Slade, Giles. *Made to Break : Technology and Obsolescence in America*. Cambridge, Mass.: Harvard University Press, 2006.
- Smith, Adam. *The Wealth of Nations*. 1776. Bungay: Penguin books, 1970.
- Smythe, Dallas W. "Communications: Blindspot of Western Marxism." *Canadian Journal of Political and Social Theory* 1.3 (1977): 1-27.
- . "On the Audience Commodity and Its Work." *Media and Cultural Studies Key Works*. 1981. Ed. M.G. Durham and D.M. Kellner. Revised ed. Malden, MA: Blackwell, 2006. 230-56.
- Sony. *Consolidated Financial Results for the Fiscal Year Ended March 31, 2010*. Tokyo, Japan, 2010.
- Sotamaa, Olli. *"Have Fun Working with Our Product!": Critical Perspectives on Computer Game Mod*

- Competitions*. Proceedings of DiGRA 2005 Conference: Changing Views: Worlds in Play. 2005. University of Vancouver.
- . "On Modder Labour, Commodification of Play, and Mod Competitions." *First Monday* 12.9 (2007).
- . "The Player's Game: Towards Understanding Player Production among Computer Game Cultures." University of Tampere, 2009.
- . "Play, Create, Share? Console Gaming, Player Production and Agency." *Fibreculture Journal* 8.16 (2010).
- Spigel, Lynn, and Jan Olsson. "Television after TV Essays on a Medium in Transition". Durham, 2004. Duke University Press.
- Spurgeon, Christina. *Advertising and New Media*. New York, NY: Routledge, 2008.
- Stead, Chris. "The 10 Best Game Engines of This Generation". 2009. UK: IGN. January 14 2011. <<http://uk.xbox360.ign.com/articles/100/1003728p2.html>>.
- Steinberg, Scott. *Videogame Marketing and PR: Vol. 1: Playing to Win*. Lincoln: iUniverse, 2007.
- Steinert, Heinz. *Culture Industry*. Oxford; Malden, MA: Polity, 2003.
- Stewart, Kym, and Hyewon Park Choi. "PC-Bang (Room) Culture: A Study of Korean College Students' Private and Public Use of Computers and the Internet." *Trends in Communication* 11.1 (2003): 63-79.
- Storz, Cornelia. "Dynamics in Innovation Systems: Evidence from Japan's Game Software Industry." *Research policy*. 37.9 (2008): 1480.
- Strauss, Ben. "E3: Modern Warfare 2 Has Sold 20 Million Copies". 2010. IndustryGamers. October 1 2010. <<http://www.industrygamers.com/news/e3-modern-warfare-2-has-sold-20-million-copies/>>.
- Stringer, Julian, ed. *Movie Blockbusters*. London: Routledge, 2003.
- Suarez-Villa, Luis. *Technocapitalism: A Critical Perspective on Technological Innovation and Corporatism*. Philadelphia: Temple University Press, 2009.
- Sutton-Smith, Brian. *The Ambiguity of Play*. Cambridge, Mass: Harvard University Press, 1997.
- Takahashi, Dean. *Opening the Xbox: Inside Microsoft's Plan to Unleash an Entertainment Revolution*. Roseville, CA: Prima, 2002.
- . *The Xbox 360 Uncloaked: The Real Story Behind Microsoft's Next-Generation Video Game Console*. Spiderworks, 2006.
- . "Interview with Microsoft's Robbie Bach, Part 2, on Xbox 360". 2008. VentureBeat. August 24 2010. <<http://games.venturebeat.com/2008/06/13/interview-with-microsofts-robbie-bach-part-2-on-xbox-360/>>.
- . "Nintendo CEO: Wii Care About Your Heartbeat, but Not Your Iphone, the Recession or Free Games". 2009a. VentureBeat. July 20 2010. <<http://games.venturebeat.com/2009/06/04/nintendo-ceo-wii-care-about-your-heartbeat-but-not-your-iphone-the-recession-or-free-games/>>.
- . "Microsoft Games Exec Details How Project Natal Was Born". 2009b. (June 2): VentureBeat.com. November 24 2010. <<http://games.venturebeat.com/2009/06/02/microsoft-games-executive-describes-origins-of-project-natal-game-controls/>>.
- Tapscott, Don and Anthony D. Williams. *Wikinomics: How Mass Collaboration Changes Everything*. New York: Portfolio, 2006.
- Taylor, Laurie N. "Console Wars: Console and Computer Games." *The Player's Realm: Studies on the Culture of Video Games and Gaming*. Ed. J. Patrick Williams and Jonas Heide Smith. Jefferson, NC: McFarland Press, 2007. 223-37.
- Taylor, T.L. *Play between Worlds - Exploring Online Game Culture*. Cambridge: MIT Press, 2006.
- Teipen, Christina. "Work and Employment in Creative Industries: The Video Games Industry in Germany, Sweden and Poland." *Economic and Industrial Democracy* 29.3 (2008): 309-35.
- Terranova, Titiana. "Free Labor: Producing Culture for the Digital Economy." *Social Text* 18.2 (2002): 33-57.
- Thompson, Kirstin. *The Frodo Franchise: The Lord of the Rings and Modern Hollywood*. Berkeley, CA: University of California Press, 2007.

- Tippl, Thomas. "Activision Blizzard (ATVI)." *17th annual Digital Entertainment Conference*. BMO Capital Markets.
- Tippl, Thomas et al. "Activision Blizzard (ATVI) Q2 2010 Earnings Call". 2010. (August 5): Seeking Alpha. February 2 2011. <<http://seekingalpha.com/article/219068-activision-blizzard-q2-2010-earnings-call-transcript>>.
- Toffler, Alvin. *The Third Wave*. New York: Morrow, 1980.
- Tomaselli, Fernando Claro, Luiz Carlos Di Serio and Luciel Henrique de Oliveira. "Value Chain Management and Competitive Strategy in the Home Video Game Industry." *POMS 19th Annual Conference*.
- Tschang, F. Ted. "Videogames as Interactive Experiential Products and Their Manner of Development." *International Journal of Innovation Management* 9.1 (2005): 103–31.
- . *Balancing the Tensions between Rationalization and Creativity in the Videogames Industry*. Research Paper Series (Singapore Management University. School of Business), 0607. Singapore: Lee Kong Chian School of Business, Singapore Management University, 2007.
- Tschang, F. Ted and Janusz Szczypula. "Idea Creation, Constructivism and Evolution as Key Characteristics in the Videogame Artifact Design Process." *European Management Journal* 24.4 (2006): 270–87.
- Van Dijck, José. "Television 2.0: Youtube and the Emergence of Homecasting." *MIT5: Creativity, Ownership, and Collaboration in the Digital Age*.
- . "Users Like You? Theorizing Agency in User-Generated Content." *Media, Culture & Society* 31.1 (2009): 41-58.
- Van Dijck, José and David B. Nieborg. "Wikinomics and Its Discontents: A Critical Analysis of Web 2.0 Business Manifestos." *New Media and Society* 11.5 (2009): 855-74.
- Von Hippel, Eric. *The Sources of Innovation*. Oxford: Oxford University Press, 1988.
- . *Democratizing Innovation*. Cambridge, MA: The MIT Press, 2005.
- Walraven, Pieter-Paul. "The Next Step - Internationalization of the Chinese Internet Industry." MA thesis. University of Amsterdam, 2009.
- Wardrip-Fruin, Noah, and Pat Harrigan. *First Person: New Media as Story, Performance, and Game*. Cambridge, Mass.: MIT Press, 2004.
- Wasko, Janet. *How Hollywood Works*. London: Sage, 2003.
- . "Critiquing Hollywood: The Political Economy of Motion Pictures." *A Concise Handbook of Movie Industry Economics*. Ed. Charles C. Moul. Cambridge; New York: Cambridge University Press, 2005. 5-31.
- Wayne, Michael. "Post-Fordism, Monopoly Capitalism, and Hollywood's Media Industrial Complex." *International Journal of Cultural Studies* 6.1 (2003): 82-103.
- Wedel, Michel, and Wagner A. Kamakura. *Market Segmentation: Conceptual and Methodological Foundations*. Boston: Kluwer Academic, 2000.
- Whalen, Zach and Laurie N Taylor, ed. *Playing the Past: History and Nostalgia in Video Games*. Nashville: Vanderbilt University Press, 2008.
- White, Matthew M. "The Senescence of Creativity: How Market Forces Are Killing Digital Games." *Loading...* 3.4 (2009).
- Williams, Dmitri. "Structure and Competition in the U.S. Home Video Game Industry." *The International Journal on Media Management* 4.1 (2002): 41 – 54.
- Williams, Raymond. *Television: Technology and Cultural Form*. 1974. Ed. Ederyn Williams. London: Routledge, 2005.
- Wilson, Trevor. "Top 20 Publishers." *Game Developer Magazine* 2009: 18-28.
- Wolf, Mark J.P. *The Video Game Explosion: A History from Pong to Playstation and Beyond*. Westport: Greenwood Press, 2008.
- Wyatt, Justin. *High Concept: Movies and Marketing in Hollywood*. Austin: University of Texas Press, 1994.
- Zittrain, Jonathan. *The Future of the Internet and How to Stop It*. New Haven: Yale University Press, 2008.

Ludography

- Microsoft interns/Carbonated Games. *Aegis Wing*. (2007). Microsoft Game Studios. Vers. Xbox Live Arcade.
- Rovio Mobile. *Angry Bird*. (2009). Clickgamer Media/Chillingo. Vers. Mobile.
- **Army of Two (2008 -) (franchise)**
- UbiSoft Montreal. *Assassin's Creed*. (2007). Ubisoft. Vers. Playstation 3/Xbox360/Windows.
- ---. *Assassin's Creed II*. (2009). Ubisoft. Vers. Microsoft Windows/Playstation 3.
- Neversoft/Vicarious Visions/Budcat Creations. *Band Hero*. (2009). Red Octane. Vers. Xbox 360.
- **Battlefield (2002 -) (franchise)**
- Digital Illusions CE. *Battlefield 2*. (2005). EA Games. Vers. Microsoft Windows.
 - *Battlefield 2: Armored Fury, 2006* (booster pack)
 - *Battlefield 2: Euro Force, 2006* (booster pack)
- EA Digital Illusions CE. *Battlefield: Bad Company 2*. (2010). Electronic Arts. Vers. Microsoft Windows/ Playstation 3/Xbox 360.
- Irrational Games/Digital Extremes. *BioShock*. (2007). 2K Games. Vers. Xbox 360.
- Bizarre Creations. *Blur*. (2010). Activision. Playstation 3/Windows/Xbox 360.
- Double Fine. *Brütal Legend*. (2009). Electronic Arts. Vers. Playstation 3/Xbox 360.
- **Call of Duty (2003 -) (franchise)**
- Infinity Ward. *Call of Duty*. (2003). Activision. Vers. Microsoft Windows.
- ---. *Call of Duty 2*. (2005). Activision. Vers. Xbox 360.
 - *Call of Duty 2: Invasion Pack* (2006) (DLC)
 - *Call of Duty 2: Skirmish Pack* (2006) (DLC)
- Gray Matter Interactive/Treyarch/Pi Studios. *Call of Duty 2: Big Red One*. (2005). Activision. Vers. Nintendo GameCube/Playstation 2/Xbox.
- Treyarch. *Call of Duty: Black Ops*. (2010). Activision. Vers. Xbox360.
- Spark Unlimited. *Call of Duty: Finest Hour*. (2004). Activision. Vers. Playstation 2/Nintendo/GameCube/Xbox.
- *Call of Duty Legacy*. (2007). Activision. Vers. Playstation 2.
- Infinity Ward/Treyarch. *Call of Duty 4: Modern Warfare*. (2007). Activision. Vers. Xbox 360.
 - *Call of Duty 4: Modern Warfare. (2007) "Variety Map Pack"* (DLC)
- Infinity Ward. *Call of Duty: Modern Warfare 2*. (2009). Activision. Vers. Xbox 360.
 - *Call of Duty: Modern Warfare 2 "Stimulus Package"* (DLC)
- Gray Matter Interactive. *Call of Duty: United Offensive*. (2004). Activision. Vers. Microsoft Windows.
- Treyarch. *Call of Duty: War Chest*. (2006). Activision. Vers. PC/Xbox 360.
- ---. *Call of Duty: World At War*. (2008). Activision. Vers. Xbox 360.
- The Behemoth. *Castle Crashers* (2008). Microsoft Game Studios. Vers. Xbox Live Arcade.
- EA Los Angeles/Breakaway Games. *Command & Conquer 3: Kane's Wrath*. (2008). Electronic Arts. Vers. Xbox 360.
- Zoë Mode. *Chime*. (2010). OneBigGame/Easy Tiger, Valcon Games. Vers. Xbox Live Arcade.
- Zynga. *CityVille*. (2010). Zynga. Vers. Facebook.com.
- Valve Software. *Counter-Strike*. (2003). Microsoft Game Studios. Vers. Xbox.
- Realtime Worlds. *Crackdown*. (2007). Microsoft Game Studios. Vers. Xbox 360.
- **Crysis (2007 -) (franchise)**
- Visceral Games. *Dante's Inferno*. (2010). Electronic Arts. Vers. Xbox 360.

- Sony Online Entertainment. *DC Universe Online*. (2011). Sony Computer Entertainment/WB Games. Vers. Playstation 3.
- FreeStyleGames. *DJ Hero*. (2009). Activision. Playstation 2, Playstation 3, Wii, Xbox 360.
- Nintendo. *Donkey Kong*. (1981). Nintendo. Vers. Arcade.
- Id Software. *Doom*. (1993). id Software. Vers. MS-DOS.
- **Dragon Age (2009 -) (franchise)**
- EA 2D. *Dragon Age Journeys*. (2009). EA games. Vers. Facebook.com
- BioWare. *Dragon Age: Origins*. (2009). Electronic Arts. Vers. Xbox 360.
 - *Dragon Age: Origins - Awakening*, 2010 (DLC)
- BioWare. *Dragon Age: Origins: Ultimate Edition*. (2010). EA Games/Electronic Arts. Vers. Playstation 3/Xbox 360.
- 3D Realms. *Duke Nukem*. (1996). 3D Realms Entertainment. Vers. PC.
- **EA Sports Active (2009 -) (franchise)**
- Playfish/Electronic Arts. *EA Sports FIFA Superstars*. (2010). Electronic Arts. Vers. Facebook.com
- Atari, inc. *E.T. the Extra-Terrestrial*. (1982). Atari, inc. Vers. Atari 2600.
- Sony Online Entertainment. *EverQuest*. (1999). Sony Online Entertainment. Vers. Windows/Mac OS X.
- Zynga. *FarmVille*. (2009). Zynga. Vers. Facebook.com.
- EA Sports. *EA Sports FIFA Superstars*. (2010). Electronic Arts. Vers. Facebook.com.
- Ubisoft Montreal. *Far Cry 2*. (2008). Ubisoft. Vers. Xbox 360.
- **FIFA (1993 -) (franchise)**
- Square production Development Dept. *Final Fantasy VII*. (1997). Square. Vers. Playstation.
- Square Product Development Division 3. *Final Fantasy XI*. (2006). Sony Computer Entertainment. Vers. Playstation 2.
- Square Enix. *Final Fantasy XIV*. (2010). Square Enix. Vers. Microsoft Windows/Playstation 3.
- Thatgamecompany. *fIow*. (2006). Sony Computer Entertainment. Vers. Playstation Network.
- Turn 10 Studios. *Forza Motorsport 2*. (2007). Microsoft Game Studios. Vers. Xbox 360.
- SOE San Diego. *Free Realms*. (2011). Sony Online Entertainment. Vers. Playstation 3.
- Epic Games. *Gears of War*. (2006). Microsoft Game Studios. Vers. Xbox 360/Windows.
- **God of War (2005 -) (franchise)**
- Terminal Reality/Threewave Software. *Ghost Busters: The Video Game*. (2009). Atari. Vers. Xbox 360.
- **Gran Turismo (1997 -) (franchise)**
- Polyphony Digital. *Gran Turismo*. (1997). Sony Computer Entertainment. Vers. Playstation.
- ---. *Gran Turismo 3: A-Spec*. (2001). Sony Computer Entertainment. Vers. Playstation 2.
- ---. *Gran Turismo 4*. (2004). Sony Computer Entertainment. Vers. Playstation 2.
- Rockstar North. *Grand Theft Auto IV*. (2008). Rockstar Games. Vers. Xbox 360.
- ---. *Grand Theft Auto: Episodes From Liberty City*. (2009). Rockstar Games. Vers. Xbox 360.
- Rockstar North/Rockstar Vienna. *Grand Theft Auto: Vice City*. (2002). Vers. Playstation 2/Xbox.
- Rockstar North. *Grand Theft Auto: San Andreas*. (2004). Rockstar Games. Vers. Playstation 2/Xbox.
- **Guitar Hero (2005 - 2011) (franchise)**
- Harmonix Music Systems. *Guitar Hero II*. (2007). RedOctane/Activision. Vers. Xbox 360.
- Neversoft. *Guitar Hero III: Legends of Rock*. (2007). Activision. Vers. Xbox 360.
- Neversoft. *Guitar Hero 5*. (2009). Activision/RedOctane. Vers. Xbox 360.
- ---. *Guitar Hero: World Tour*. (2008). Activision. Vers. Xbox 360.
- Neversoft/Beenox/Rebellion Developments. *Gun*. (2005). Activision. Vers. Xbox 360.
- Lionhead Studios. *Fable*. (2004). Microsoft Game Studios. Vers. Xbox.
- Valve Corporation/Gearbox Software. *Half-Life*. (1998). Sierra Entertainment. Vers. Microsoft windows/Playstation 2.

- Valve Corporation. *Half-Life 2*. (2004). Valve Corporation/Sierra Entertainment. Vers. Microsoft Windows/Mac OS X/Xbox/Xbox 360/Playstation 3.
 - *Half-Life 2: Episode One* (2006).
 - *Half-Life 2: Episode Two* (2007).
- **Halo (2001 -) (franchise)**
- Bungie Studios/Hired Gun/Pi Studios/Certain Affinity. *Halo 2*. (2004). Microsoft Game Studios. Vers. Xbox/Microsoft Windows.
- Bungie Studios. *Halo 3*. (2007). Microsoft Game Studios. Vers. Xbox 360.
- Chillingo. *iBomber Defense*. (2010). Chillingo. Vers. Mobile.
- Sucker Punch Productions. *Infamous*. (2009). Sony Computer Entertainment. Vers. Playstation 3.
- **James Bond (2008 -) (franchise)**
- Rare. *Kameo: Elements of Power*. (2005). Microsoft Game Studios. Vers. Xbox 360.
- **Killzone (2004 -) (franchise)**
- Guerrilla Games. *Killzone 2*. (2009). Sony Computer Entertainment. Vers. Playstation 3.
- DMA Design. *Lemmings*. (1991). Psygnosis/Sunsoft/Data East/Ocean Software. Vers. Commodore Amiga/various.
- Media Molecule. *Little Big Planet*. (2008). Sony Computer Entertainment Europe. Vers. Playstation 3.
- . *Little Big Planet 2*. (2011). Sony Computer Entertainment. Vers. Playstation 3.
- Turbine. *Lord of the Rings Online*. (2007). Turbine/Midway Games/Codemasters. Vers. Microsoft Windows.
- **Madden NFL (1988 -) (franchise)**
- Zynga. *Mafia Wars*. (2009). Zynga. Vers. PC/Mac/Facebook.com/mobile
- Nintendo. *Mario Bros*. (1984). Nintendo. Vers. Arcade.
- Hudson Soft. *Mario Party 8*. (2007). Nintendo. Vers. Wii.
- Sega Japan/Sega Sports. *Mario & Sonic at the Olympic Games*. (2007). Nintendo/Sega. Vers. Wii.
- Next Level Games. *Mario Strikers Charged*. (2007). Nintendo. Vers. Wii.
- Namco Bandai/NOW Production. *Mario Super Sluggers*. (2008). Nintendo. Vers. Wii.
- Bioware/Demiurge Studios. *Mass Effect*. (2007). Microsoft Game Studios. Vers. Xbox 360/Microsoft Windows.
- Bioware. *Mass Effect 2*. (2010). Electronic Arts. Vers. Microsoft Windows/Xbox 360/Playstation 3.
- **Medal of Honor (1999 -) (franchise)**
- 2015, inc. *Medal of Honor: Allied Assault*. (2002). Electronic Arts. Vers. PC.
- Konami Computer Entertainment Japan/Success. *Metal Gear Solid 2: Sons of Liberty*. (2001). Konami. Vers. Playstation 2.
- Kojima Productions. *Metal Gear Solid 4: Guns of the Patriots*. (2008). Konami. Vers. Playstation 3.
- United Front Games/SCE San Diego Studio. *ModNation Racers*. (2010). Sony Computer Entertainment. Vers. Playstation 3/Playstation Portable.
- Evolution Studios. *MotorStorm*. (2006). Sony Computer Entertainment. Vers. Playstation 3.
- EA Black Box/Ideaworks. *Need for Speed: Underground 2*. (2005). EA Games. Vers. Xbox 360.
- Nintendo EAD. *New Super Mario Bros. Wii*. (2009). Nintendo. Vers. Wii.
- Q Entertainment. *Peggle*. (2009). PopCap Games. Vers. Iphone.
- PopCap Games/Q Entertainment. *Peggle*. (2007). PopCap Games/Valve Corporation. Vers. Nintendo DS.
- Playfish/Electronic Arts. *Pet Society*. (2008). Playfish/Electronic Arts. Vers. Facebook.com.
- **Pro Evolution Soccer (2001 -) (franchise)**
- Radical Entertainment. *Prototype*. (2009). Activision. Vers. Xbox 360/Playstation 3/Microsoft Windows.

- ID Software. *Quake*. (1996). GT Interactive. Vers. PC
- **Resistance (2006 -) (franchise)**
- Insomniac Games. *Resistance: Fall of Man*. (2006). Sony Computer Entertainment. Vers. Playstation 3.
- Namco. *Ridge Racer*. (1994). Namco. Vers. Playstation.
- **Rock Band (2007 -) (franchise)**
- Linden Research. *Second Life*. (2003). Linden Research. Vers. Windows microsoft/MAC OS X.
- Chair Entertainment/Epic Games. *Shadow Complex* (2009). Microsoft Game Studios. Vers. Xbox Live Arcade.
- Raven Software. *Singularity*. (2010). Activision. Vers. Microsoft Windows/Xbox 360/ Playstation 3.
- **SOCOM: U.S. Navy SEALs (2002 -) (franchise)**
- Steve Russel et al. *Spacewar!* (1962). Steve Russel et. al. Vers. PDP-1.
- Nintendo EAD Tokyo. *Super Mario Galaxy*. (2007). Nintendo. Vers. Wii.
- . *Super Mario Galaxy 2*. (2010). Nintendo. Vers. Wii.
- Intelligent Systems. *Super Paper Mario*. (2007). Nintendo. Vers. Wii.
- Bethesda Game Studios/4J Studios. *The Elder Scrolls IV: Oblivion*. (2006). 2K Games/Bethesda Softworks. Vers. Windows/Xbox 360/Playstation 3.
- EA Los Angeles. *The Lord of the Rings: The Battle for Middle-earth*, (2004). EA Games. Vers. PC Windows.
- . *The Lord of the Rings: The Battle for Middle-Earth II*. (2006). EA Games. Vers. Microsoft Windows/Xbox360.
- EA Redwoods Shores. *The Lord of the Rings: The Third Age*. (2004). EA Games. Vers. GameCube/Playstation 2/Xbox.
- Turbine Inc. *The Lord of the Rings Online: Shadows of Angmar*. (2007). Turbine Inc./Midway Games/Codemasters. Vers. Microsoft Windows.
- **The Sims (2000 -) (franchise)**
- Maxis. *The Sims*. (2000). Electronic Arts. Vers. Microsoft Windows.
- . *The Sims 2*. (2004). Electronic Arts. Vers. Windows.
- Silicon Nights. *Too Human*. (2008). Microsoft Game Studios. Vers. Xbox 360.
- **True Crime (2003 -) (franchise)**
- **UFC Undisputed (2009 -) (franchise)**
- Naughty Dog. *Uncharted 2: Among Thieves*. (2009). Sony Computer Entertainment. Vers. Playstation 3.
- Epic Megagames/Digital Extremes. *Unreal*. (1998). GT Interactive. Vers. Mac OS/ Microsoft Windows.
- Epic Games. *Unreal Tournament III*. (2007). Midway Games. Vers. Microsoft Windows/Playstation 3/Xbox 360.
- **Viva Piñata (2006 -) (franchise)**
- **Warhawk (2007 -) (franchise)**
- id Software. *Wolfenstein*. (1992). Apogee Software. Vers. PC.
- Blizzard Entertainment. *World of Warcraft*. (2004). Blizzard Entertainment. Vers. PC.
- **WWE Smackdown (2000 -) (franchise)**

Filmography

Avatar. Dir. James Cameron. Twentieth Century Fox Corp., 2009.

Casino Royale. Dir. Martin Campbell. Columbia Pictures, 2006.

Die Another Day. Dir. Lee Tamahori. Eon Productions, 2002.

Harry Potter (2001 -) franchise

Jaws. Dir. Steven Spielberg. Zanuck/Brown Productions, 1975.

Lord of the Rings (2001 – 2003) franchise

Pirates of the Caribbean: Dead Man's Chest. Dir. Gore Verbinski. Walt Disney Pictures, 2006.

Quantum of Solace. Dir. Marc Forster. Metro-Goldwyn-Mayer, 2008

The Lord of the Rings: The Return of the King. Dir. Peter Jackson. New Line Cinema, 2003.

Acknowledgments

Being done and looking back at the last five and a half years it feels that I took my research maybe a bit too seriously. Especially the last six months were somewhat intense. I am far from an exception as many PhD students can tell you their stories about the last months of writing and redrafting. Still, for the people around you it might be a challenge having to deal with someone who so clearly chose work over play. It sounds a bit cheesy and it feels way too personal to put it on paper like this, but still, I want to thank those people close to me for their unwavering support, love and understanding. I promise I will never write another PhD dissertation ever again.

Thanks to all those in various academic communities around the world who helped me out in small and very big ways. Thanks to my colleagues and friends at Utrecht University and a thank you to all at GAMBIT and at MIT; thanks for having me and for early feedback on some very rough drafts. A thank you to all of my University of Amsterdam colleagues and friends, de altijd vriendelijke collega's van het secretariaat, my office roommates, the VrijMiBo crew, and all at ASCA.

A firm handshake for those in the Dutch game industry (at EA, Nintendo, Microsoft, Activision, and Linden & Barbosa) who helped me to get access to sources and events. The same handshake goes out to all those Dutch (game) journalists and critics who challenged me online and offline to stay away from academic lingo and express myself clearer on an almost day to day basis.

Over the years I did many side projects that greatly benefitted my PhD. Thanks therefore to all at Dagblad de Pers, specifically Arjan Terpstra, as well as Jan-Jaap Heij for hiring me in the first place. Thanks to those involved at GMR, NRC, nrc.next, Folia, De Nieuwe Reporter, Vrij Nederland, and Control. Thanks to all at the Dutch Game Garden. Thanks to my agent, Tessa Sterkenburg. Thanks to all those who supported me while I was working on, or finishing my thesis, at RIVM, Aegon, NCTb, the guys at KREM, Grafisch Design Museum, Submarine, and Gamelab. Alle vrolijke vrienden van Bashers wil ik bedanken en in het bijzonder natuurlijk Niels 't Hooft.

I greatly appreciated the input, company and help of Dan Hassler-Forest, Joke Hermes, Joyce Goggin, Joost Raessens, Patrick Crogan, Skylla Janssen, Jeroen Sondervan, Alexander Klöpping, Henry Jenkins, Tanja Sihvonen, Peter Oltshoorn, Olivier Oosterbaan, Charles Forceville, Jacco van Uden, Yuichi Washida, Gert Veldhuizen en Martijn Blom, Jeroen van

Maastricht, Mieke Gerritzen, Marieke van Oudheusden en Joke Hermes. Bedankt voor het uitlenen van jullie huizen Pieter & Nicolien en Quirien & Karel!

A fist bump to my friends in Amersfoort, Utrecht, Amsterdam, Minneapolis, Poquoson, Boston and Las Vegas.

Thanks Thijs Polfliet for the tech support, thanks Melinda Jacobs for reading along, moral support and being flexible.

Much respect and gratitude to my two paranymphs; a /bow to dr. René Glas for showing me how to properly do a PhD defense and a /cheer for making my UvA tenure even more fun. And much love to dr. Shenja van der Graaf without whom I never would have even considered doing a PhD, who taught me so much, but most of all how to party Vegas style.

Of course I had the unwavering support of every single member of my awesome family, I am grateful to all of them. Especially my mother for her attentiveness. And my dad who can take credit for all the major milestones in my life.

Thanks to my co-supervisor Jan Simons for his feedback and sharp observations. For over a year I have been thinking about how to put into words how to properly convey the level of gratitude I feel towards both William Uricchio and José van Dijck. Looking back I feel that I have been so insanely lucky to be on your team. William, you have inspired me by being such a graceful, engaging and supportive mentor throughout my entire academic career. And José, your level of dedication is unmatched, you went way beyond the call of duty every single time, something I never took for granted. You embody what is so great about academia. Your selflessness, the ability to lead by example, and, of course, offering a truly intellectual atmosphere. Thank you so much.

Much love goes out to Jet for sharing the burden and then some.

Appendix

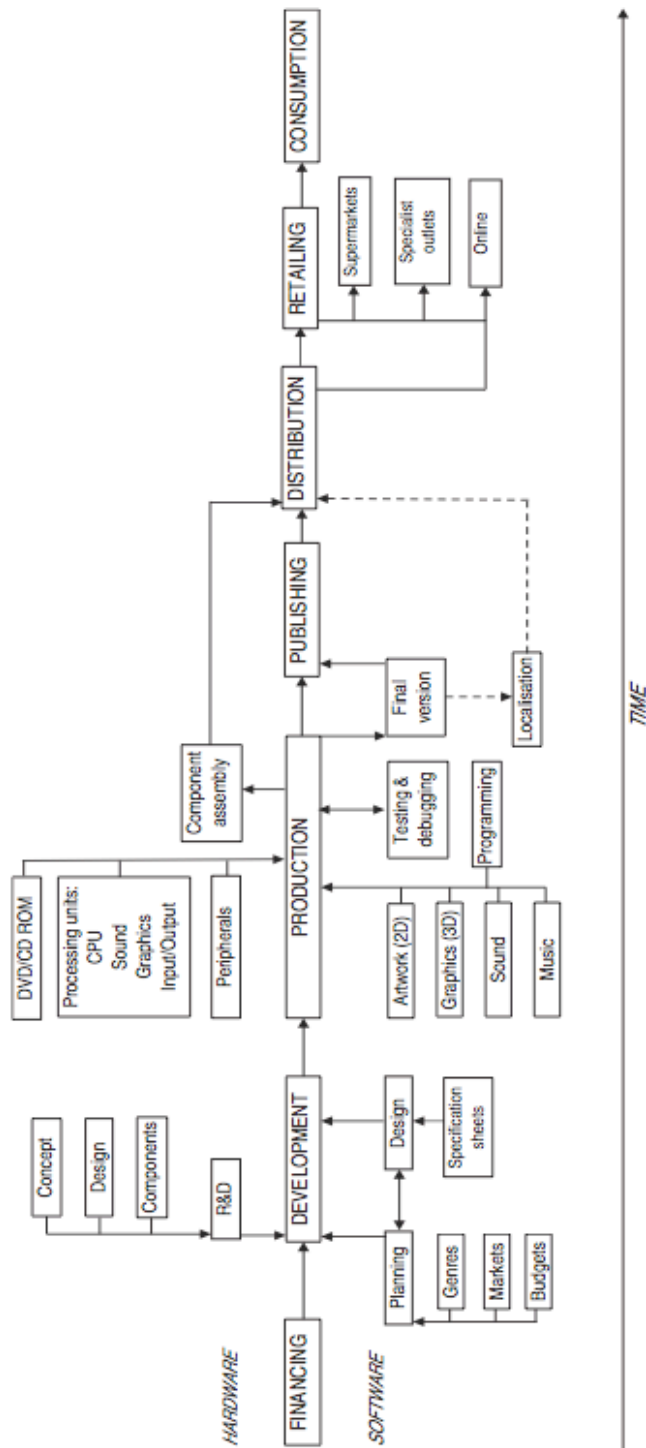


Figure 2. The seven stages and inputs of the video games production network.

Figure 1: The Value Chain (Johns, 2006: 158)

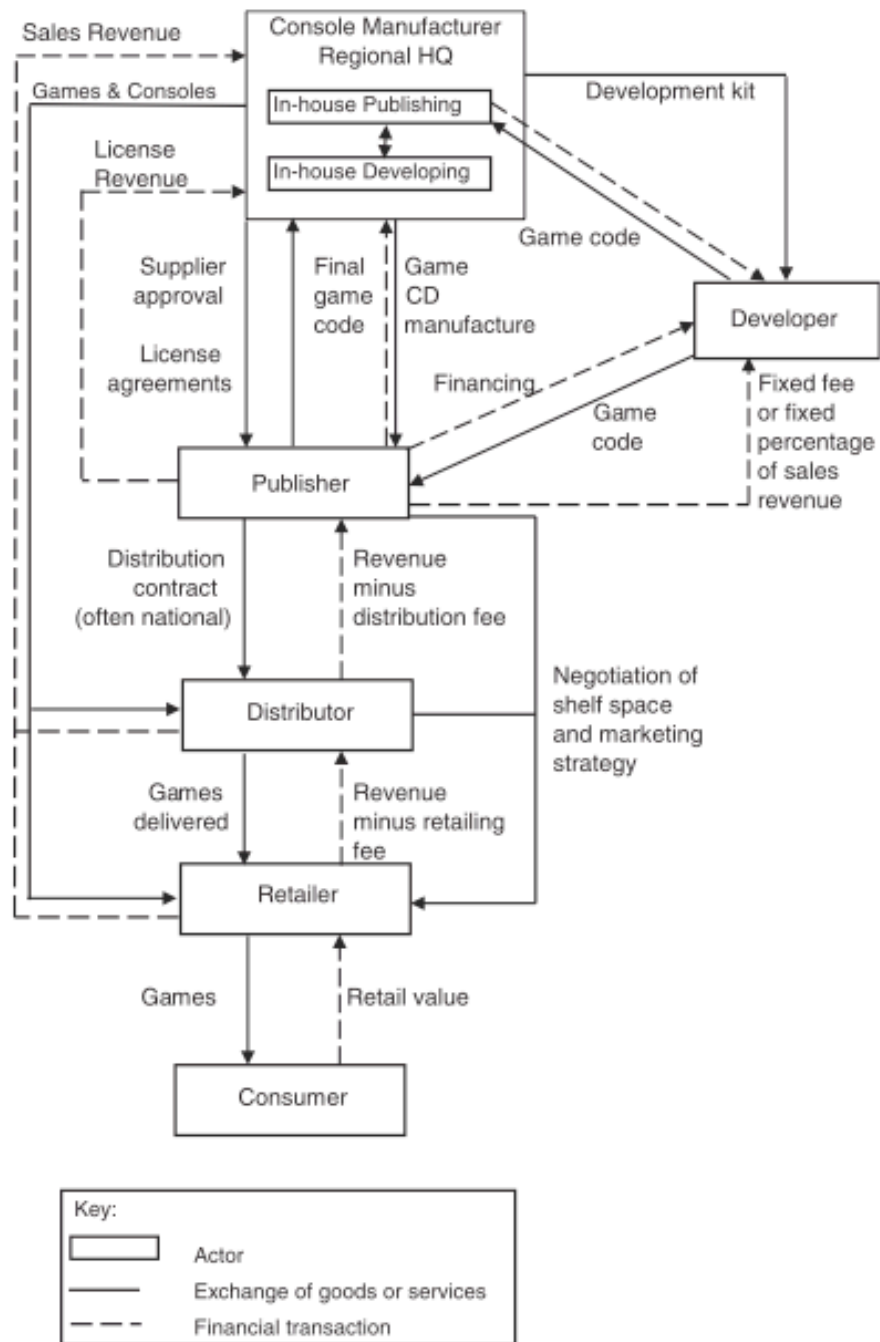


Figure 4. Interconnections between actors in the video games software production network.

Figure 2: Video game production network (Johns, 2006: 164)