

Co-creative Game Design as Participatory Alternative Media

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Abstract

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The possibility of co-creation exists for all media, but game design has developed a culture that is unusually open to co-creation. This dissertation investigates significant cases of co-creation in mainstream games in order to explore how games can be co-created as alternative or critical media by their players.

The core argument in the dissertation is that players co-create the design of a game only if certain conditions are met, namely: (1) player creation of a text or communication infrastructure that modifies the properties of the game and from which play emerges; (2) that this is done for a considerable group of players who share a particular practice of play; (3) that this is done not only by playing the game but by changing how others play it in a distinct creative activity, and (4), with the potential to subvert or contest the original design of the game.

This situation where player creators have influence over the design of the game (but little power to enforce their interests) is problematic from the perspective of alternative or critical media, as alternative, local, production is seen as one reason for why a medium can have an alternative message.

The industrial production of games as cultural commodities does limit the potential of co-creative game design for subversion because it reduces the level of participation in the creation process, thus keeping player creators relatively disempowered. Player creators do have influence on the design of the game, while at the same time having very little power to enforce their interests and design visions. The influence of player creators comes from the consumer power of millions of players who use co-created assets and who want them to continue existing, and this creates a mutually dependent relationship (and even partnership), between co-creators and commercial owners.

The dissertation concludes that co-creative game design, despite limitations related to the industrial production of games as cultural commodities, is already happening, and shows a potential for turning games into alternative media.

Keywords: Co-creation, co-creative game design, game design, participation, alternative media, critical media, open innovation, modding, add-ons, MMOs, MMORPG, World of Warcraft, Diablo 3, interface

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*To Ida,
Felix,
Justus,
Dante,
and the one yet to be born.*

You are the light of my life.

List of Papers

This thesis is based on the following papers, which are referred to in the text by their Roman numerals.

- I Prax, P. (2012) Co-creative interface development in MMORPGs – the case of World of Warcraft add-ons. *Journal of Gaming and Virtual Worlds*, 4(1) 3-24. DOI: 10.1386/jgvw.4.1.3_1
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- III Prax, P. (2014) Co-Creativity in Online Games as Alternative Media, *Questions de communication* – forthcoming.
- IV Prax, P. (2013) Game Design and Business Model: An Analysis of Diablo 3. *Proceedings of DiGRA 2013*, Atlanta: USA.
- V Prax, P. and Laaksoharju, M. (2012) Democracy has arrived! A Model for Ethical Decision Making of Players in MMOs. *Proceedings of Meaningful Play*, East Lansing: USA.
- VI Prax, P. (2015) Co-Creative Game Design in MMORPGs, *Proceedings of DiGRA 2015*, Lüneburg: Germany.

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1. Introduction

Contemporary political activists talk of creating autonomous spaces of imagination and creativity that are contingent, open and unpredictable- an attempt to escape ideological politics and more to a dialogical politics where we continually acknowledge difference and learn from others. (...) Such forms of resistance are often united by a shared perception of an injustice rather than a common, determinate vision of a "better world" that may follow. (Fenton, 2010:28)

As millions of people spend increasing amounts of time in online games and virtual worlds, we need to be vigilant about whether these new environments are fulfilling their promises of freedom and reinvention, and if they're not, we need to find a way to change them. (Yee, 2014:5)

In principle, the possibility of co-creation exists for all media, but game design has developed a culture that is unusually open to co-creation. Examples of this include the distribution of application-programming interfaces ("APIs"), modding (the modification of existing games), add-ons, interface modifications, and other forms of player creation. These practices should not be seen as niche or exotic as some of the most played and influential titles (at least in the world of PC gaming) have originated from player creation. Counter-Strike (1999), a mod for Half Life (Valve, 1998), was subsequently taken over by Valve and is still one of the most prominent games of its kind. Another example of when player-created content led to the rise of an entire genre of games (Multiplayer online battle arena) is DotA (Eul, Steve Feak, IceFrog, 2003), a map used for Warcraft 3: Reign of Chaos (Blizzard, 2002). Games that adapt the central design of DotA (as well as some of the designers) are DotA 2 (Valve, 2013), Heroes of Newerth (S2 Games, 2010), Heroes of the Storm (Blizzard, 2015), and, most prominently, League of Legends (Riot Games, 2009) which at the start of 2014 had 27 million daily, and 67 million monthly, players (Riot Games, 2014).

This dissertation investigates significant cases of co-creation in mainstream games. In previous research a number of different perspectives on player co-creation have been presented: perspectives that can be differentiated based on how they limit the notion of co-creation, on how they define co-creation in relation to authorship, and on the utilization (or not) of a critical perspective on industry practice(s) and the issue of unpaid player labour. Using case

studies to examine the extent to which players influence the design of the games they are playing, the goal of this dissertation is to examine how player co-creation goes as far as co-creating the very design of games. In addition, the dissertation also investigates the potential of “strong” forms of co-creation to provide alternative, critical discourses. Based on their ability to facilitate the expression of meaning through procedure, digital games have been discussed as a means for social change (e.g., Bogost, 2009; Frasca, 2001). Bogost (2009), for example, calls this *procedural rhetoric*. While the concept applies also outside games, it is highly relevant for the study of games as it captures how they are well-suited to aid in the representation, illustration and discussion of various systems, be they societal, mechanistic, ecological or biological.

However, there are limitations to using procedural rhetorics in games as a vehicle for social change. Persuasive games, and the messages they communicate through procedural rhetorics, are determined by the designers of the game, and this can be considered problematic as it limits the influence of the player on the creation of meaning (Sicart, 2011). In addition, both the role of the player and the subversive and empowering nature of play are also underestimated (Sicart, 2011; Fassone, 2014). The argument has been made that all forms of media are, by their nature, “active” in that the meaning-making process allows for alternative readings (Meehan, 1990; Smythe, 1977; Fiske, 1989). Games, however, grant the player an even larger influence on the meaning of their text as they stress interactivity and player input (Aarseth, 2003).

A solution for these limitations could lie in the co-creation of digital games: co-creation can potentially offer a middle ground where the vision of the designer is not the only factor determining the message of the game, and where players can experiment with procedural rhetorics to express their own ideas about the world. The modification of existing commercial titles with large audiences can serve to increase the impact of these games, thus falling into line with Fuchs and Sandoval’s (2010) suggestion of following Marcuse’s (1972) framework of, “working against the established institutions, while working in them” (55). Established games such as *World of Warcraft* (“WoW”) already reach millions of players, and the question is the extent to which it is possible to modify them into something that is “challenging of structures of power” (Downing, 2010: 296).

As the practices of co-creation are limited by the technical and economic control of game producers and distribution platforms over the co-creation process, using the lens of participation (Carpentier, 2016; Arnstein, 1969), this dissertation strives to uncover such power relations and the potential influence held by player co-creators. By doing so this dissertation sheds light

on the influence that player creators hold in ways that add additional complexity to our existing understanding of player creativity and innovation. Co-creation in games has already been examined in connection to open innovation (Linder et al., 2003; Chesbrough, 2003; Banks 2013), foregrounding an emergent variant of cultural production in which users and corporate creators of digital media cooperate in a relationship of mutual benefit. While these approaches do recognize that there is a danger of exploitation within unpaid immaterial labour, they tend to downplay economic perspectives in favor of managerial practices or ways to motivate co-creation (Banks, 2013:9). The choice to not stress issues of exploitation is partly a reaction to the inflexibility of a strict Marxian perspective, in which any appropriation of surplus value is considered exploitation (Fuchs, 2010B). But it is also a consequence of a very open understanding of co-creation.

In this dissertation, I propose an alternative definition of co-creative game design that does *not* include the creation of content through play, but rather focuses upon the impact of the creation on the overall game. Adopting a stricter understanding of co-creative game design allows for a focus on forms of player co-creation that offer a potential to subvert games, thus turning them into forms of alternative media. It also allows for a stronger normative statement concerning the rights of player co-creators, and brings to the foreground again issues of the labour and political economy. The aim of this dissertation, then, is to explore how games can be co-created as alternative media or critical media by their players. The dissertation falls within a critical theory paradigm (Fuchs, 2014) in that it does not simply aim “at an increase in knowledge as such” (Horkheimer, 2002: 249) but aims to establish an understanding of game design as a participatory practice.

Research Questions

This thesis has a main research questions with a secondary set of questions that need to be considered in order to be able to answer the original question:

1. To what extent does player co-creation of game design allow the co-creation of games as alternative and critical media?

- 1.1: Based on the mechanisms of player co-creation, how can we define co-creative game design?

- 1.2: What influence does the industrial production of games have on the level of participation of player co-creators?

- 1.3: In what ways does co-creation enable a re-framing of mainstream games as alternative media?

Contribution of the Thesis

Co-creative game design is, like many other cultural creation practices, an ongoing process with a number of actors and complex relations. Using the examples of specific interactions between player creators and industry (as illustrated in the case studies) makes it possible to both broaden and deepen our understanding of co-creative game design. The articles focus on a set number of examples of player co-creation, and so this umbrella complements the articles by both comparing and contrasting the results from these studies, connecting them more broadly to its theoretical context, and, finally, formulating the outcome of the studies in context that is larger than the sum of the individual parts. This analysis of co-creative game design is useful for Game Studies because it combines an investigation of players with an analysis of game design. As Game Studies typically consider play and players as separated from design and designers, the empirical data on how players co-create their games contributes to a deeper understanding of gaming practice(s).

The main theoretical contribution of the dissertation is the alternative definition and explanation of co-creative game design which allows for a stronger position when arguing for the influence player creators have on the design of the games they are co-creating. The proposed re-definition of co-creation – with an eye toward authorship, intellectual property, and ownership – allows for a more nuanced understanding of the critical potential of co-creative game design. While this definition is more limiting in terms of which practices are considered co-creative design, it assigns more weight to the ones that are classified as such. Specifically, this contribution is made partly in Study III, developed in Study VI, and finalized in the umbrella of the thesis. The umbrella also contributes by connecting the related, but often disconnected (in disciplinary terms), realms of critical media studies and critical game studies. The beginning of this critical investigation into the influence of production, power, and business models can be found in Study IV and the analysis of the dependency of game design on business models in Diablo 3. This connects the already inherent critical perspective in those concepts to a broader discussion about the role media, and thus also games, could play in our society. It makes it possible to ask questions like: How can games be co-created as critical media? How can we reach broad audiences, to be able to influence players' consciousness in ways that both critical designers and critical media scholars claim to strive for? How far do already existing co-creative practices already reach here? This discussion is made mostly in the umbrella of the thesis. The theoretical discussion in this dissertation then informs the design document for player-created content that is presented in Study V, and that has as its aim to co-create WoW as an alternative medium.

Delimitations

This dissertation primarily focuses on digital games, and specifically *Massively Multi-Player Games* (hereafter “MMOs”) and uses as examples the *Massively Multi-Player Role-Playing Game* (hereafter “MMORPG”) and virtual world (hereafter “VW”) *World of Warcraft* (Blizzard Entertainment, 2004), and the *Action Role-Playing Game* (ARPG) *Diablo 3* (Blizzard Entertainment, 2012). These titles have been chosen based on the focus of the research questions. PC games have been chosen over console games as the technical setup of PC games allows for more co-creation. As Taylor (2012) notes: “While console games certainly have settings that can, and are, configured especially for competitive play, they are not quite as malleable as PC games” (131). While the majority of the individual studies (four out of five) investigate WoW, this dissertation is not *per se* a dissertation about WoW. WoW is one of the most influential games in recent years, with a considerable player community participating over an extended period of time, making it ideal for studying co-creative game design based on player-created content and collective learning tools. It could have been possible to also study the influence of a game’s business model on that same game’s design by, for example, contrasting the design and the monetization of the game in different regions (e.g. Europe and Asia). However, *Diablo 3* is a unique example for investigating the influence of business models on game design due to the way it introduced drastic changes to its business model and game design (in comparison to its predecessor). It is also close enough to WoW (in terms of genre both being RPGs and in terms of being produced by the same game studio) to be relevant.

The choice of studying a MMORPG is motivated by the focus on social interaction with other players, team play, and persistent social groups that make up a large portion of the game. Multi-player games and other social environments allow players to socialize within a different system of rules, and thus create different relational structures with those alternate sets of rules. Another motivation for choosing WoW is that this particular title has been influential on not only the games industry, but also on the extension of audience demographics for gaming and on changing public perception of games. The success of WoW has led to a number of titles trying to reach similar popularity through imitation, such as *Age of Conan* (Funcom, 2008), *Rift* (Trion Worlds, 2011), and *Star Wars: The Old Republic* (BioWare, 2011). In addition, WoW was the main reason behind the rise of Blizzard as one of the most influential companies in PC gaming and it has helped build the IPs that Blizzard is using in *Hearthstone* (Blizzard, 2014) and the *Heroes of the Storm* (Blizzard, 2015). Even console gaming stands in the shadow of WoW: the recently published action role-playing first-person shooter *Destiny*

ny (Bungie, 2015) – at the moment of writing the most expensive game ever produced – is using game design elements from WoW.

In addition, Diablo 3 has been chosen as the title for the analysis of the influence of the business model on game design for a number of reasons. Just as with WoW, Diablo 3 is a social game where trading with others is central. It is also a title within the Blizzard stall. The new revenue model tested by Diablo 3 (with the real-money auction-house) was a strategic choice in the monetization strategy of Blizzard, and as such had potential to become a role model for the rest of the industry. Blizzard games have inspired large communities of co-creators in the past, and the inclusion of RMT into Diablo 3 had the potential of opening a way to monetize on player-created content in other games like *Starcraft 2* (Blizzard Entertainment, 2010) and its add-ons or *Heroes of the Storm*. However, the game met resistance from players partly due to this revenue model, which made it a good site for data collection on the link of business model and game design. This does not mean, however, that “co-creation as alternative media” would not be applicable to single-player games, especially as even these are played in a social environment. As will be discussed, Frasca’s (2001) mod “Sims of the Oppressed” allows players of the game *The Sims* (Maxis, 2000) to create sims with the character traits they want to play and experiment with. The analysis might also be applicable to analog games, where the co-creation and change of rules can be accomplished easily. House rules of games are common and respected. However, as such, modifications seldom reach outside of the co-creating group, and analog games are excluded from the focus of this thesis.

This dissertation is based on six previously published studies. Study I examines the extent of add-ons that are incorporated into the standard *World of Warcraft* interface to see how much of the innovation can be attributed to the creativity of the community. Study II discusses how these mobile applications for *WoW* also reconfigure social, technological and generic (within gaming) relations. Study III offers a theoretical framework for understanding the potential of player co-creation in games in order to create spaces of free imagination and resistance. Study VI propose a theoretical framework for analyzing if a certain feature has been introduced into the design of a game in order to increase the financial profit created over a specific revenue stream” that has “negative consequences for the players, or limit the potential of the game to be a persuasive game. Study V present the design vision and theoretical framework of a digital tool for ethical decision-making that will be implemented in the virtual world *World of Warcraft*. Study VI proposes a model for co-creation of games as alternative media. The model uses actual play practices to understand the political and cultural influence co-creation might have in the relationship between the owner of the game and the players.

2. Literature & Theoretical Focus

This chapter presents an overview of the main theoretical perspectives utilized in the articles, placing them in larger context. It also presents theories, concepts and research not used in the individual studies, but that are necessary for framing the contribution of the papers as a whole: specifically, work in relation to participation and open innovation. The following chapter then proceeds to the theoretical argument of the dissertation. The chapter will discuss theoretical perspectives on player-created content, games as persuasive media, and media studies perspectives on media for social change.

Player-Created Content

Co-Creation

Co-creation is the central concept of this dissertation. As argued above, the thesis argues for a more limited meaning of the word than what is typically found in previous work. In previous research the term “co-creation” is used in a number of different ways and to describe different phenomena; most of which describe some sort of production process in which users, the audience, or consumers are contributing to the production of their good or services:

Companies cannot assume that methods of co-production, in which distinct communities interact to produce a product, result in a sure formula for design success. Rather, they must be aware of how co-production policies and supporting tools influence ethics and practices, particularly those that hinder acquisition of resources and collaboration between community members. (Kow & Nardi, 2010a: (Discussion and Conclusion section, para. 12)

Often, the concept of co-creation is linked to (more or less critical) accounts of the future of cultural production within digital media and new ways of generating innovation and progress (van Hippel, 2005). A fairly wide definition of co-creation is offered by Molka-Danielsen (2011) who, with Kaplan (2011), sees virtual worlds as a kind form of social media: “*co-creation is defined as a design process where individual members of communities engage in and contribute to products and services creation, along with organizational members*” (Molka-Danielsen, 2011: 1).

However, the role, importance and perspective on co-creation in the production process is inconsistent across different academic disciplines and schools of thought. One extreme example is the concept of the “co-creation of value” (Prahalad and Ramaswamy, 2004a; 2004b; DiGangi, 2010; Deloitte, 2008) wherein the creative process of the consumer lies in the act of consumption. This line of thought argues that the value of a product or service is only realized in consumption, and that it must follow that the consumer is *de facto* “co-creating” product value. The value also depends on *how* the product is used: the value created through the use of a phone, for example, is higher when it is used to call somebody than when it is used to balance a table. From this perspective, users or consumers can be seen as more or less empowered, and thus need to be treated as partners. Di Gangi (2010), for example, stresses the importance of the autonomy of the consumers and the need to offer something in return for their investment of time and effort:

There must be incentive for individual investment. And as such the relationship between organization and individuals must address issues of autonomy, participation in the decision-making process, and opportunities for member growth and skills acquisitions. (Di Gangi, 2010)

In relation to both digital games and virtual worlds the concept of co-creation is used to describe a variety of processes, with different roles for the co-creator and different levels of both empowerment and exploitation. Both Molka-Danielsen (2011) and Kaplan (2011) see virtual worlds as a form of social media. This perspective extends to MMORPGs as a particular kind of virtual world, and possibly other online games as these are also digital media through which user interaction generates content. For social media, the simultaneous use of the media, and the voluntary creation of content, has been critically termed “prosumption” (Ritzer, 2010; Ritzer and Jurgenson, 2010; Fuchs 2011) or “produsage” (Bruns, 2008; Deuze, 2007)ⁱ. Since social media are typically platforms owned and operated by large global companies, this can be considered a form of user labour (Fuchs, 2010), and has been criticized as a continuation of the logic of the audience commodity (e.g. Smythe, 2001). This critique has in turn been appropriated for games with the development of the notion of “playbour” (Goggin, 2011; Kücklich, 2005).

For games, the focus has been on understanding the importance and impact of user-created content, as well as the motivation of players to become co-creators. Scacchi (2010) provides an overview and classification of different forms of player-created content for games. Player-created content has been studied within the context of MORPGs such as WoW, and shown to have a substantial impact on the social interaction between players (Chen, 2009; Golub 2010; Taylor, 2006a, 2009; Nardi and Kallinikos 2007). For example, player-created add-ons such as “damage meters”ⁱⁱⁱ have been found to be

agents that change the culture in the game. The impact of modifications on the design of WoW is indicated by the fact that Blizzard will sometimes disable some add-ons, with the argument that “Blizzard felt these mods were changing the nature of the game by making it too easy” (Nardi and Kallinikos 2007: 15). Player-created content also contributes to the collective learning process of players, which in turn has an impact on play in groups and eventually on game design (Taylor 2006b; Steinkuehler and Duncan 2008; Sherlock 2009; Gee 2003). This dialectic development through player-developer conflict is best described in the work of Kow and Nardi (2010B).

Understanding the motivations of player co-creators has been a topic of interest in itself, and it has been shown that co-creators typically take pleasure in the game: “(m)odding is a labour of love; satisfaction comes from knowing other players appreciate and use an author’s mods” (Nardi and Kallinikos 2007: 9). Social capital and status outside of the community seems to be irrelevant as co-creators, “gain little in the way of reputation – they are anonymous to all but the most die-hard players” (*ibid.*, 9). Rather, it is the membership in the community of co-creators that seems to be important (Nardi and Harris 2006). These communities are centered around websites for software production management such as Wowinterface.com and Wowace.com (Kow and Nardi 2010a), but extend further into a broader (sub)culture of co-creators (Sotamaa 2003, 2009). For some co-creators, modding is an alternative way to play the game, and they do it because they enjoy the challenge and the work in the group (Sotamaa 2010). This kind of productive play leaves “the boundaries between play and production, work and leisure” increasingly blurred (Pearce 2006: 18), illustrating the problematic nature of a supposedly entrenched work–play dichotomy (Malaby, 2007).

The work–play dichotomy leads to a line of research that investigates co-creation from a (critical) economic perspective. Player-created content has “considerable value and scope” (Postigo 2007: 311) and can be seen as free and immaterial labour exploited by digital game companies (Postigo 2010; Kücklich 2005; Terranova 2000). While certain player creators have presented themselves as fairly content with donating their time to an activity they enjoy, it becomes a relevant question to ask how this requirement of (1) having time, and (2) being able to work for free, sets up barriers to becoming cultural producers. Related to the tensions between player creators and game producers addressed by Kow and Nardi (2010), Postigo (2010; 2008) discusses the perspective of player creators on IP law, and Burke (2010) and Lastowka (2010) critically examine the use of intellectual property regimes by game producers to control player creators. In these realms there are also considerable differences in how different producers handle IP conflicts and ownership of intellectual property (Molka-Danielsen, 2011: 8).

In his work on co-creation in video games, Banks' (2013) perspective is informed by his ethnographic work inside a game design company. As stated in an interview by Henry Jenkins (2014), Banks focused on how, "developers grapple with the challenges and opportunities of co-creative production at the coalface of their everyday workplace – the game development studio" (Banks in Jenkins, 2014 (para. 14)) which resulted in "an explanatory model of co-creation that seeks to integrate both market exchange explanations and cultural production explanations at once" (Banks, 2013: 149). In this interview, Banks begins by justifying the inquiry into player co-creation by pointing to the increasing importance of player creation(s) for the games industry. However, while recognizing the importance of issues of labour, Banks criticizes a political economy perspective:

As I suggest in the book, this was no longer an ancillary or marginal activity – it was becoming core. This content and the gamers' co-creative practices were contributing directly to the commercial viability of this product [...] We suggest that co-creative media production may sit uncomfortably with such political economy critiques. I guess I'm open to criticism here that in doing this I become an apologist for, or at least complicit with, the interests of business and capital. In this book I've tried to avoid what I find to be quite unhelpful and polarizing polemic around these issues. [...] I'm just not convinced that political economy critique adequately grapples with the flows and exchanges of value characterizing co-creativity. (Banks in Jenkins, 2014)

Banks' reasons for rejecting a political economy approach are that player co-creators are typically capable and well informed about their role in the co-creation of games, which makes him reject the rhetoric of exploitation. He also discusses the effort game companies have to invest on their end of a co-creative production process without certainty of financial rewards (but with a clear orientation of their effort towards their financial bottom line that is clearly visible in his interview data), which draws into question the concept of the game producer cashing in on player labour as the producer has to invest into co-creation for it to work. (Banks, 2013:9; 22; 30) This does not mean that he is not interested in questions of labour, but rather that his main focus is on the potential displacement of professional workers:

Yes exploitation can occur and yes work practices and employment conditions are at stake. But I'm just not convinced that the language and framework of exploitation and extraction of surplus value necessarily explains what is occurring here [...] The co-creative relationships cannot easily be reduced to corporate exploitation of the gamers and the professional developers. I try as much as possible to take my lead from the often quite nuanced understandings of the participants themselves. I struggle with the assumption that there are social forces (exploitative and manipulative) at work behind the actors' backs as it were. (Banks in Jenkins, 2014(para. 23))

In relation to the co-creation of video games, Banks and Potts (2010) formulated a “co-evolutionary analytic model” (Banks & Potts, 2010: 260; also Banks, 2013) that combines the social network markets (Banks & Humphreys, 2008) of player creations (the market perspective) with the “theory of multiple games” (Banks, 2013:133), which looks at the motivation of co-creators and understands co-creation as a way of playing the game in line with Sotamaa (2010). Labour issues are part of the “social networks markets” side of the model, but do not feature prominently. Leading up to this model, Banks also frames the co-creation of games as a paradigm for cultural production. While Banks does not clearly state what paradigm he relates it to, be it open innovation or something else, he references Chesbrough (2003a) and Van Hippel (2006), who had been working with the term “open innovation”.

Open Innovation

Open innovation (OI) has been advocated as a disruptive new form of cultural production (Chesbrough, 2003a) that is changing the core of contemporary economics thereby providing added value for both companies and users (Benkler, 2006). There are numerous theoretical models that describe ways in which users can have an influence on software development and products, ranging from development managed by users in open-source communities, to “classical” software development where users are involved in testing to give feedback. These different forms of “user-led innovation as a significant cultural and economic phenomenon” (Banks, 2010: 253) have inspired the creation of a number of models and theories (Baldwin et al., 2006; Bruns, 2008; Burgess and Green, 2009a; Croteau, 2006; Hartley, 2009; Jenkins, 2006; Jenkins et.al. , 2009; Shirky, 2008). The digital games industry is well-known for making heavy use of users/players as co-creators (Postigo, 2007; Arakji and Lang, 2007; Banks and Potts, 2010) and is considered to be at the forefront in using open innovation (Jeppesen & Molin, 2003; Davidovici-Nora, 2009).

The concept of open innovation is used by a number of authors who analyse player co-creation in games in general (Roig et.al, 2013:15), and WoW specifically (Davidovici-Nora, 2009). Conflicts around the concept of open innovation show the implied normative perspective on what player co-creation in an open innovation process should look like. Essentially, the concept of open innovation implies that the possibilities for co-creation in digital media will and should lead to a new kind of cultural production in which users/players and corporations work together as partners for their *mutual* benefit. Open innovation has, however, been criticized for exploiting unpaid labour of co-creators (Ross, 2009:21-2) with “blatant attempts by incumbent corporate players to cash in on the rise of collaborative content production

without embracing the core principles” (Bruns 2008:255). The conflicts between the corporate logic of capital accumulation and the normative ideal of shared cultural production is a bridge from co-creation to the critical perspective that lies at the core of this dissertation, and so the next step will be to investigate the connection between business models and game design.

Co-Creation and Revenue Models

The rise of online distribution, social media games and mobile gaming has contributed to changes in the monetization models for games. Business models have moved away from boxed product sales and subscription models, putting more emphasis on virtual item sales, micro-transactions, taxation of player trade, and funding through advertising. While these developments have triggered a large amount of research about game business models, this literature review will be limited to studies that connect the design of a game to its business model. This will allow an investigation into the extent to which the business model of a game can impact its co-creation as an alternative or critical medium. *The mechanism by which a business model or revenue model can influence game design has been explained with the example of arcade games by Rollings and Adams (2003):*

Arcade games (...) have to maximize what the operators call “coin drop” – the amount of money that people put through the front. Arcade Operators care little for richness, depth, and the aesthetic qualities of a game as long as it makes a lot of money for them. This requires some fine balancing. If a game is too hard, people will abandon it in disgust, but if it is too easy, they will be able to play a long time without putting any more money in.” (46)

And, by Bogost (2007):

Despite the popularity and renown of coin-op games like PONG and Pac-Man the content of arcade and tavern game is largely irrelevant. Beyond persuading players to insert (more) coins, these types of video games offer little in the way of design imperatives. (Bogost, 2007:305).

Researchers have argued that revenue model and the game design are two sides of the same coin (Alves and Roque, 2005; 2007). Hamari and Lehdonvirtä (2010), for example, explored different ways of incorporating business models such as virtual item sales into the design of a game from a marketing perspective (see also Hamari, 2009; Lehdonvirtä, 2005; 2008; 2009). They stress that in a virtual world where the game producer has full control, they should use this to design the world from the bottom up in order to benefit their business model. In terms of research, Hamari and Lehdonvirtä (2010) note:

MMO operators are able to adjust the environment in which their products are sold and marketed, and the rules according to which the products are used, not to mention their role in creating the environment to begin with (...) Many virtual world operators find themselves in a situation where revenue generation logic is distanced from the design of the service itself (...) One potential direction for future research could thus be found in examining how business models and service design, including game design, could be integrated and aligned from the start. (26)

Critical perspectives, on the other hand, have contributed with the notion of “playbour” (Goggin, 2011; Kücklich, 2005), wherein games and their play reflect work and capital accumulation (Rettberg, 2008; de Peuter and Dyer-Witthof, 2005; Harambam et al., 2011) which, when related to game studies, links to similar points in scholarly literature about open innovation and real participation.

Games as Persuasive Media

Procedural Rhetoric and Persuasive Games

The term “procedural rhetorics” was coined by Ian Bogost (2007) to describe the way games express meaning through procedure: in other words, through rules and their execution. Bogost developed this perspective with a focus on digital games, but it can be used to understand in relation to analogue games, as well as to other forms of digital media such as virtual worlds (akin to *Second Life*). Bogost expands the meaning of rhetoric – which is originally the expression of meaning through speech, then images and other media – to games, focusing on how they operate as a system of procedures and claiming that, “procedural representation is a claim about how part of the system it represents does, should, or could work” (36). In other words, the rule set of a game: from more passive rules that govern the game world to more direct rules that dictate what a player can and can’t do. By creating a virtual game world in a specific manner with specific game mechanics, game designers are thus making an argument. This dynamic is procedural rhetorics: rhetorical meaning encoded into the procedural rules – and the digital code – of games.

Bogost (2007) is very clear about the political nature of the rhetoric in games, using the term “persuasive games” to describe those that challenge the status quo, and suggests that creating such games is a desirable task for game designers (Bogost, 2007:57). This political perspective connects the concept of procedural rhetorics to the concepts of alternative and critical

media. Bogost describes a way for games to influence the political perspective of players through the use of unique properties of digital games. However, it is not possible to pre-determine the experience and incentives for players via design alone: the actions of the players themselves (and other players) perpetually shape and re-shape content. This variability, therefore, turns game design into a second-level design problem in which designers influence the underlying rules and properties of the space from which the social interaction and social dynamics emerge (Bartle, 2004; Adams, 2010), but where the actual experience is shaped by how players *choose* to engage with these structures: a factor undervalued or even neglected in typical descriptions of procedural rhetorics. The examples Bogost (2007) uses are all small and confined games, such as Frasca's *September 12th*. Procedural rhetorics overemphasize the role of the designer, and underemphasize player influence in the creation of meaning (Sicart, 2009). This becomes particularly problematic when considering massively-multiplayer games such as WoW. The next theoretical perspective on "critical play" serves as a useful conceptual intervention to bridge this gap.

Critical Play, Games and Design

The concept of "critical play" moves away from the focus on what the designer can express through procedural rhetorics, and instead focuses on the influence of the player on meaning-making through play, a concept similar to the notion of "countergaming" in discussed by Galloway (2006). In relation to critical play, Fassone (2014:8) writes:

While in the writing of Pias (2011) and other media theorists this affinity between everyday computational artifacts and video games is portrayed as a tool to build a completely subservient player, who does her duty, I argue that engaging critically through play with the very procedures that govern much of our lives is in fact a complex and heuristically relevant activity of a video game, possibly more than the theorist, is herself a procedural critic, who navigates and interprets sets of arbitrary rules upheld by a computational system that often acts in opposition to her actions. Being a player does not consist in exploiting a possibility space, but rather in exploring the impossibilities of a designed system, its borders and limits, the idiosyncrasies of its rules.

This passage by Fassone (2014) is a clear illustration of how critical he is of approaches that give full control over the rhetorics to the designer. Fassone sees the critical engagement with the game, the breaking and bending of rules, as the productive components of play, and states that these allow players to learn to question previously taken-for-granted rules and norms. Flanagan (2009) discusses both critical play and critical design, introducing her book with a quote from Foucault (1977/1984) about the potential of art to open up critical reflection on normality. Flanagan puts the topic of subver-

sion on the agenda for critical games and play. Flanagan (2009:253) states that games are a third space in the same way that Homi Bhabha (1994; 1996) described them as a “space of subversion, hybridity, and blasphemy.”(Bhabha, 1994:211). As Flanagan (2009) notes:

If we think of games as presenting the possibility of the thirdspace, a social space with its own social relations, struggles, and symbolic boundaries, it is within this third space that we must envision the more diverse and equity-promoting style of activity I call critical play. Flanagan (253)

While Flanagan (2009) is more open to the importance of play activity, her work on critical play and ethical play still produces recommendations for game design, stating that, “critical play is not about making experts, but about designing spaces where diverse minds feel comfortable enough to take part in the discovery of solutions” (261). Flanagan’s recommendations favor games that allow players more influence over the game than those of Bogost’s (2007) procedural rhetorics. Flanagan has created a methodology for critical game design, with a framework very similar to Sicart’s (2009) recommendations for ethical game design, with a focus on giving the players the possibility to attach meaning to their play, and to enable them to change the game. Flanagan stresses the importance of human concerns and values (Flanagan, 2009:257) as a part of the design, and this this is also a component of the concept of *queer game design* that challenges who the designer is and how success in game design is defined (Harvey, 2014). These design methodologies carry an implicit critique of the production of culture, digital media, and games for profit.

While persuasive games and critical play have elements of game design for social change, this perspective is made explicit in Frasca’s *Games of the Oppressed* (2001). Here, an attempt is made to apply methods and theories from activist theater in South America (Boal, 1979), critical pedagogy (Freire, 2000) and even from the German exile poet Berhold Brecht (1977) to the medium of digital games. Gonzalo Frasca (2001) describes his goal as “designing video games for critical awareness” and “creating environments where players could question and discuss both their personal and societal realities” (56). His sources of inspiration have in common the aim of enabling audiences/actors/students/players to see past the dominant discourse and to question normality and hegemony (Frasca, 2001:65). As Turkle (1997; in Frasca, 2001: 58) notes, a game/simulation can, “help players challenge the model’s built-in assumptions. This new criticism would try to use simulation as a means of consciousness-raising.” This capability (potentially) breaks immersion, forcing the player’s critical attention upon the assumptions inherent in these games.

Media Studies Theory

Alternative Media and Critical Media

The concept *alternative media* is often used in relation to radical, small-scale local media outlets linked to specific sub-cultures (Atton, 2002). The concept has been expanded to include any media that are different from mainstream media industries. The difference can, for example, lie in the production processes and business models utilized: an alternative media outlet could be created by amateurs with free labour in a participatory manner; it could be exclusively local to a small group of people and keep itself outside of the market; and, it could also be non-mainstream in the kind of texts it produces, or have a non-mainstream political outlook. In addition, the alternative, progressive setup of the organization has been seen as a central aspect of alternative or radical media (Downing, 2001). On the other hand it has been argued that the definition of alternative media, solely based on peer production and small circulation, is problematic as such a vision of alternative media would hamstring any possibility of bringing about social change (Fuchs, 2010). Fuchs and Sandoval (2010) argue that alternative media that do not use the effective forms of production and circulation (as used by the cultural industries) will not lead to any meaningful social change.

As an alternative, Fuchs (2010A) proposes the concept of "Critical Media," which builds around the political aim of a medium that can, "challenge human consciousness so that imagination is potentially advanced and suppressed possibilities of development can potentially be imagined" (181). According to Fuchs and Sandoval (2010), critical media should make use of established media strategies and structures, and refer to Marcuse's (1972) well-known mantra of "working against the established institutions, while working in them" (55). While this perspective on critical media is aimed toward challenging capitalist hegemony (Gramsci, 1971; Chomsky 2003) the purpose of critical media is perhaps better characterized as "challenging of structures of power" (Downing, 2010: 296). Examples for how games can break a hegemonic world-view can be found in literature about games and learning of leadership skills (e.g. Reeves et al., 2007). A common argument within this vein is how the nature of digital communication in digital media allows people to experience themselves and others differently, by masking social markers such as race and gender that would otherwise influence interaction.

While Fuchs and Sandoval (2010: 143) propose a conception of alternative media as critical media that use capitalist organizational forms to reach a broader audience and influence, they limit the concept in terms of media

content. Critical media (from their perspective) must be critical of and to capitalism. This political aim then becomes the normative difference between mainstream and critical media, as all other attributes (such as production style and business model) can be sacrificed in order to work inside a system. This can be seen as a built-in contradiction: the authors (Fuchs, 2010: 182; Sandoval, Fuchs, 2010: 145) do not, for example, recognize small right-wing media as critical media although those texts and productions might also question the status quo. On the other hand, John Downing (2010: 295-296) uses the example of right-wing alternative media (e.g. Nazi newspaper "Der Stürmer") as a reminder of the potential power of alternative media for social change. While the exact definition of alternative media or the usefulness of an exact definition is discussed (Rodríguez, 2001), the one recurring element is the "challenging of structures of power" (Downing, 2010: 296).

This leaves us with two different understandings of what should define alternative media. Atton (2002) and Downing (2010) define alternative media as a descendent from radical media as media with an alternative organization, production, and distribution to mainstream capitalist media. The definition which focuses on a critical Marxist message regardless of even a mainstream organization and distribution channel (Fuchs, 2010: 182; Sandoval, Fuchs, 2010: 145; Marcuse 1972) will also be called critical media. For the purpose of understanding co-creative game design these two aspects (alternative production and an influence on the outcome of the production process) need to be combined. The point of co-creation is not to turn an existing game into a purely alternatively produced game but to change some aspects of the production of the game to achieve a different outcome and potentially a critical message. However, the perspectives do require different theoretical approaches and even have implications for the data needed to investigate them and the methodological approach taken. The focus on content of critical media requires an analysis of the design of games and the influence players have on it, to then be able to draw conclusions about the possibility of injecting critical content into them. The focus on alternative production requires an analysis of the way in which player co-creators participate and how they can influence the 'production process of a game. This requires an analysis of the power position of player creators in the creation process. A useful way to link the concept of co-creative game design, the actual practice of power negotiation in the discussed cases, to the criteria of alternative media is through the lens participation.

Participation

When comparing interactive media on the web with traditional media in relation to participatory production, Sandoval and Fuchs (2010: 144) make

an important point in stressing the importance of an actual impact of participation on the outcome of the production process. The creation of content during the use of a social media platform – what Bruns (2008) terms “produsage – could be understood as constituting an empowering form of participation. Jenkins (1992), as a proponent of empowering participatory culture, argues that participatory media “make them [consumers] an integral part” (Jenkins et al., 2009) of the success of a product or text. In his work on fan culture, Jenkins (1992; 2008) stresses the power of fans to “speak back to producers” and states that they “know how to organize to lobby” (1992: 284) and, because of this, can be seen as “preparing the way for a more meaningful public culture” (2008: 239). While this last point about fan culture participation as a preparation for more participation later on is useful as a starting point for re-imagining society, Jenkins’ perspective neglects issues of control, involvement in decision-making, and ownership, and is not grounded in the actual economic reality of cultural production (Fuchs, 2014: 55). This is perhaps best illustrated by the argument that fans organizing “to lobby on behalf of an endangered series” (Jenkins, 1992:284) such as *Firefly* (Whedon, 2002), while certainly an element of empowerment, is both an extension of the role of the consumer (by asking for more commodities) and part of the broader commodification of audiences (Sandoval & Fuchs, 2010; Fuchs, 2009; Terranova, 2000). Fuchs (2014:55) points out that a somewhat *laissez-faire* understanding of “participatory culture” weakens the weight of the term “participation” as it was used in theories around participatory democracy (Macpherson, 1973; Pateman, 1970). Jenkins’ understanding of a participatory creation of culture does not employ the detailed requirements developed for participatory democracy, and thus lowers the political requirements for participatory culture. This is in line with Carpentier’s (2016) critique of inflated use of the term “participatory” in which he proposes that participation be understood as, “equal power relations in decision-making processes” and media participation as “co-decision-making in the context of media technology, content, staffing and organization.” (Carpentier, 2011: 130; see also Fuchs, 2014: 56)

Carpentier (2016) develops the ladder model of participation originally proposed by Arnstein (1969) (see Figure 1). The central point of a ladder model is that it allows for an evaluation of the level of participation in a process. Instead of showing that any process is either participatory or not it allows for a more nuanced approach showing how participatory a process is. This evaluation of intensity is especially useful when discussing games where some interaction and creation on the side of the player is ubiquitous and a binary model can be very limiting:

there is no sufficient debate on how participation should be evaluated. In some occasions, the impression might arise that any kind of social action can be labelled as participatory and then celebrated as part of the trajectory towards a democratic nirvana. (Carpentier, 2015:1)

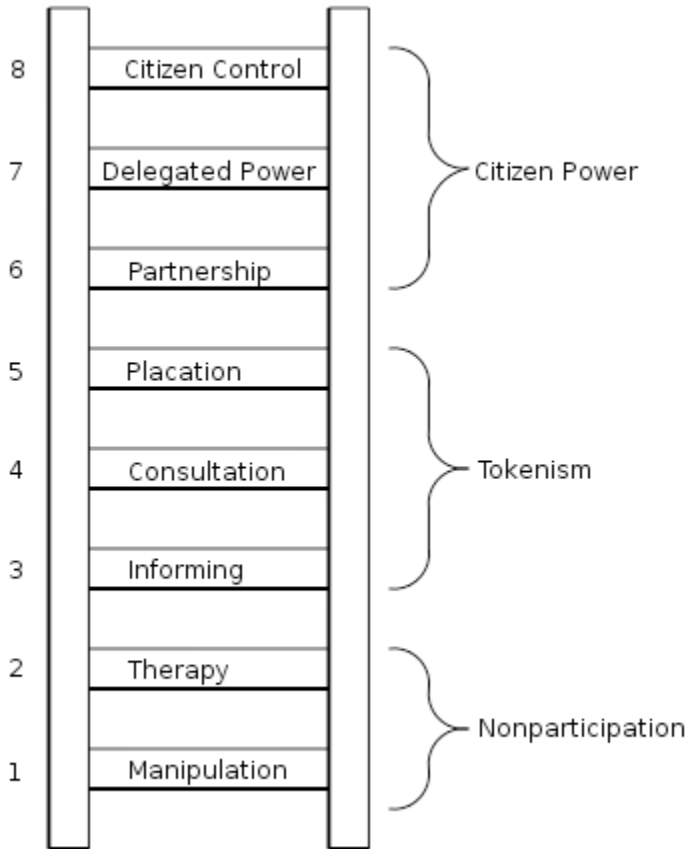


Figure 1 The Ladder of Participation, (Arnstein, 1969:217)

Arnstein's (1969:217) Ladder of Participation separates forms of participation into three groups of which the first is not considered participatory at all: nonparticipation, tokenism, and citizen power. Arnstein's (1969) model was developed using examples of citizen participation in local community and city politics. It cannot be directly applied to cultural creation in a capitalist economy as customers/audience members/users are not citizens. Carpentier's (2016) modification of this model is explicitly aimed towards contemporary media and mitigates this problem further. The highest level of participation,

citizen control, is thus not necessarily the normative aim of any participatory process in game design. The important categories for the purpose of this dissertation are consultation and partnership. Consultation is a kind of tokenism and partnership is the lowest step of citizen power. Consultation means that citizens are asked to give feedback about plans but have no power to actually enforce that their interests are considered or their suggestions followed. Partnership, on the other hand, allows citizens some power in the decision-making process without giving them complete control. Citizens on this level of participation are treated if not as equals in the decision-making process, than their view has at least has to be taken into account. Conflicts need to be resolved in a regulated process and the citizens' perspective cannot simply be overruled.

While the original ladder targeted citizen participation in governmental processes, Carpentier's development enables the taxonomy of different participatory practices in different situations (Carpentier, 2016: 15). Jenkins' (1992) original conception of participation then emerges as representing only a low level of participation. However, even in this perspective on participation, the issue of ownership is neglected (Fuchs, 2014: 56). Both Arnstein's (1969) and Carpentier's (2016) models focus on power in decision-making, and even their highest level of participation does not focus on ownership but on equal power relations and partnership. For the purposes of this thesis, Carpentier's model is a more useful tool, compared to Fuchs' focus on ownership. It is not necessary for any participation or co-creation to always extend to shared ownership. That said, ownership needs to be discussed and taken into account as it is a key factor when considering control of, and power over, cultural production and thus feeds back into the analysis of the level of participation. By focusing on not only the outcome of the process (e.g. the text and its political orientation) (Fuchs, 2010: 182; Sandoval, Fuchs, 2010: 145; Marcuse 1972), but also on the way content is produced and power is divided over the process (Downing, 2010; Atton, 2002) this ladder of participation allows an analysis of co-creative game design that can answer to both perspectives of alternative media. In line with the way this dissertation argues for a more limited definition of co-creative game design Carpentier (2015) proposes "a more restrictive of the notion of participation"(Carpentier, 2015:15):

What the political approach argues, is that the logics of power, in relation to the particular decision-making, matters and that this component of the social is important enough to be kept distinct from social interaction, and to have the particular term reserved to it. (16).

History of the Participatory Creation of MMOs

When discussing the WoW especially with a focus on production and participation it is important to also reflect on the historical roots of WoW and other online games. WoW has not been created in a vacuum by Blizzard but instead profited from a history of game- and virtual world development and design that is heavily relying on player creativity. WoW as an MMORPG is closely related to previous games of the same genre like *EverQuest* (EQ) (Sony Online Entertainment, 1999) and *Ultima Online* (Origin Systems, 1997). These titles in turn owe considerable parts of their design to text-based MUDsⁱⁱⁱ. Bartle (2010) discusses in particular three iterations of *AberMUD* that each stressed a specific aspect of virtual worlds and online games. While “*TinyMUD was a deliberate de-gaming*” (Bartle, 2010: 27) and “*LPMUD [...] devised a user friendly, object-oriented language called LPC for creating game worlds*” (Bartle, 2010: 27) *DikuMUD*. “*focused on intensifying the game aspects of AberMUD, drawing heavily on concepts from Advanced Dungeons and Dragons such as character classes.*” (Bartle, 2010: 27)^{iv} Of these three, DikuMUD (developed at the University of Copenhagen) was most successful in terms of players and had a huge influence on the subsequent development of massively multiplayer games. The similarity between DikuMUD and EQ go so far that the programmers of EQ felt a need to declare that they did not use DikuMud code. ((Bartle, 2010: 33) As Bartle puts it, “*EverQuest was basically a DikuMUD with a graphical front-end bolted on.*” (Bartle, 33). This similarity extends to WoW making it “*the new MUD*” (Mortensen, 2006:397) where not only players but also design features and social systems are shared (Mortensen, 2006; Ivory, 2016). However, there is one element that is radically different between DikuMud and WoW and that is the extent to which players can change the game.

DikuMud was created as an alternative media without a focus on financial gain and stayed open to modification by other players. The rapid iteration and innovation that can be found in the development of the different versions of MUDs has in many ways prepared the creation of graphic virtual worlds like EQ and WoW. This design work was done by player creators who were working without financial rewards but did have extensive possibilities to change the games they collectively had made and were playing. However, the creation of large-scale graphic virtual worlds that then attracted larger audiences and moved MMORPGs into mainstream culture were only possible in a cultural industry that could scale up the development of MMOs and provide the capital needed for production and marketing of virtual worlds as mainstream mass media products. Now at the point where these games have become established in mainstream culture it is then important to ask if they can return to some extent to their nature of production as alternative and

participatory media while maintaining the central role in culture and the mass audience.^v

Summary

Co-creation of digital games is the change of the design of existing games through participation in the production of the game by players. It requires analyses of both the practice of co-creation to understand the level and intensity of participation of the players in the production process and an analysis of the design of the game to evaluate the impact of the co-creative production on the design of the game.

3. Methodology

Triangulation

The methods used in this dissertation can thus be summarized as follows:

- Participant Observation (Ethnography)
- Qualitative Expert Interviews
- Game Analysis
 - Interface study
 - Gameplay Log
 - Object Inventory
 - Community Data Collection

Different research methods are often linked to different theoretical perspectives, which can in turn color the outcomes of research and lead to a lack of clarity (Berg, 2009: 5). This problem can be reduced by using what is known as a “triangulation” of methods (Brannen, 2005), or, as Johnson and Onwuegbuzie (2004: 15) note, “taking a non-purist or compatibilist or mixed position allows researchers to mix and match design components that offer the best chance of answering their specific research questions.” Eklund (2012), for example, used mixed methods to understand not only the personal perspective on games that makes up social play, but also the design of the game and more generalizable playing habits, linking these together in the analysis. Interviews with players were used to get a preliminary understanding of social play. These findings were then generalized in a quantitative questionnaire investigation, followed by a participant-observation study of the design of the game through looking at play.

In the case of this dissertation, a triangulation of methodological approaches is used to enrich the analysis by presenting multiple perspectives on the co-creation of game design. The methods used in this dissertation support each other. The analysis of game design and game content needs the inside knowledge and experience of participant observation in order to avoid a weak interpretation of the relevance of game design features for gameplay and social outcomes. Qualitative interviews with experts, players, and player creators help understanding their perspective on the game, its production, and its meaning, thus broadening the view on the game and offering a deep knowledge and experience of the game that even a playing research cannot

obtain or that is different from the perspective of a single participant observer.

This does not mean that this triangulation of methods is without flaws or covers every aspect. While the analysis of game design, players, and play allow for some level of understanding of a game a perspective that is missing is that of the game designers and producers. A production studies perspective could here add considerably to a complete image of player co-creation especially in showing the conflicts and contrasts of the player creators' and the producers' perspectives. This lack will be addressed later on in the discussion of previous literature looking at player co-creation from the perspective of a game company, namely Banks (2013; 2014).

This dissertation is built in a similar manner to Eklund's (2012), except that it changes the order of the investigations of play and design so as to adapt to the research questions. The starting point for the data collection was the ethnographic study of the use of add-ons and the level of influence they have on the game design, organized play, and the default game interface. The collection of data about add-ons and game interface features was based on these experiences with the intention of offering insight into the co-creation of game interfaces. The questions and issues which emerged out of this first study - how far the co-creation of interface features could impact game design - informed Study II (with a focus on apps) and Study IV (developing the notion of co-creative game design).

The Researcher as Player: Participant Observation in Games

A strong argument could be made that in order to obtain a full understanding of games, play and game design it is necessary to actually play the games one is studying. As Aarseth (2003) writes:

If we have not experienced the game personally, we are liable to commit severe misunderstandings, even if we study the mechanics and try our best to guess at their workings. (Aarseth, 2003: 3)

Playing games with attention to a particular question and can be seen as a form of ethnography (Konzack, 2002), and digital ethnography has been used in a variety of studies on play, player communities and even player creation of games and game culture (e.g. Williams, 2007; Boellstorff, 2006; Boellstorff et.al., 2012; Nardi, 2010; Taylor, 2006b; Pearce, 2009). Ethnography is a component of the methodology employed in this dissertation because the description and understanding of games, and the way player-

created content interacts with the design of the game, requires a certain level of what we might term “inside experience.” However, while a substantial part of digital ethnography focuses on the player view of the game and the communities and culture players create, the focus in this study was on the use of player-created tools and their influence on play. That means that play was studied as a *means* for understanding design implications of player-created content.

While the individual studies use triangulation to for example in the case of study IV combine an analysis of the business model of a game to with an investigation of game design features there is a second level of triangulation of methods on the level of the dissertation. The different studies examine co-creative game design from different perspectives, allowing for the analysis of player co-creation from the perspectives of player creators, players, and the design of the game on a broader level.

A fundamental component of this dissertation is an attempt to understand how add-ons change games. This, in turn, requires understanding of how these add-ons are used, which required an observation of people using them. I have been playing WoW since 2004, and have been an avid user of add-ons. At the last time of playing WoW I was using more than 30 add-ons (depending on which character I was using and what I was doing in the game). During the “critical play” ethnographic portion of this research, I was identifying key add-ons that influenced the design of the game, both by playing with a group and participating in (and documenting) discussions around add-on use in the broader WoW community on related fora and blogs. This data consists of forum conversations, blog posts from community members, and statements by Blizzard community managers. An understanding of the games from a player perspective afforded asking salient questions in interviews with add-on authors, community members, and other experts. Play experience was also crucial in order to understand and contextualize various kinds of data (from add-on descriptions and information about interface changes to descriptions of game mechanics and their social outcomes in organized play). Finally, without such an inside perspective, it would also not have been possible to investigate the influence of the design of the game on play itself (Waern, 2010). However, it is important to note that while this use of personal play experience on the part of the researcher has been used systematically, there is also an awareness of the potential impact of subjectivity upon these observations. It was never assumed that the personal perspective of the author on games and play was representative, instead it was used in full awareness of that different players have different styles of play, priorities and ways of doing things that impact their play and their experience (Bartle, 1996).

Game Content Analysis and Game Design Analysis

While scholars such as Aarseth (2003), Konsack (2002) and Mäyrä (2008) stress the importance of playing games in order to increase understanding and sharpen analysis, Malliet (2006) and Consalvo and Dutton (2006) developed more concrete methodological guidelines for such analysis. A central aspect is the specific nature of games as interactive media, and as multi-player spaces that pose particular methodological challenges for content analysis. Game interactivity as a key difference vis-à-vis other media formats is addressed by Aarseth (1997) when he describes games as “ergodic media:” that is, media that need input of the audience in order to be traversed. At the most basic level, without a player, a game stays in the first screen while a movie can run with no-one watching. The methodological problem is that a game is not the same for every player, but can present different types of content and experiences to players who play it differently. As Schmierbach (2009: 158) puts it, “game content will vary greatly depending on who plays the game and why they play, and in many cases a single individual may not be able to reflect that diversity.”

The problems discussed by Schmierbach (2009) were addressed in relation to quantitative content analysis of games examining, for example, representations of violence of gender. Academic research in the 1990s often focused on such “problematic” aspects (Dyer-Witheford and de Peuter, 2009): a perspective very much visible in Schmierbach’s work. Schmierbach noted that analyses of game rules and mechanics face a number of methodological and conceptual hurdles, a notion crystallized in Juul’s (2005) concept of “irreducibility” whereby it is not possible to simply reduce games to their rules because of the emergent nature of play. This means that an analysis of a game – even when it focuses on the design of the game in terms of the rules, mechanics, and procedural rhetoric – will still need to address play and players. Complexity is added in multi-player environments where play experience is dependent on other players and game sub-cultures. As a solution, Schmierbach (2009) proposes that all players in a multi-player environment be researchers recording content (166-7). However, this is clearly impossible for games like WoW, not only because of size, but also because of the diversity of the broader gaming culture by which it is surrounded (Pearce, 2009). Within Juul’s classic game model, WoW is not even an easily definable game, but a platform for a number of games (Juul, 2005).^{vi} Schmierbach’s (2009) point that a single player might not be able to experience the entire game, and might even bring a particular bias to the game that influences how s/he experiences games, remains valid. Aarseth’s (2003) attempt at a solution to this problem is the recommendation to use the experience of other players, data from the game community and player feedback to add to the personal play experience of the individual researcher, and to enrich her/his

perspective on the game with the perspectives of others who might have alternative play experiences and outcomes. As Aarseth (2003: 7) writes, “In gathering information about the game, we should use as many sources as possible. Playing is essential, but should be combined with other sources if at all possible (...) The analysis should also contain reflection on the sources used; where they come from, what could have been included, why did we select the ones we did, etc.” The use of game community videos, fora, blog posts and other online data in this dissertation fills this role of broadening the understanding of the game in way that cannot be achieved through simply playing as an individual.

In an effort to systematize the process of data gathering in research on games, Malliet (2006) and Consalvo and Dutton (2006) provide categorizations to be used in game analysis. Consalvo and Dutton (2006), for example, offer “a preliminary template for critical/ textual game analysis” containing the following categories: (1) *Object Inventory*, (2) *Interaction Map*, (3) *Interface Study*, and (4) *Gameplay Log*. The creation of an *object inventory* allows the researcher to address issues such as what can be inferred about the economic structure of the game from the pricing of objects, their relative scarcity or abundance (Consalvo and Dutton, 2006). By following the rules and mechanisms that govern objects, their creation, use, trade, and destruction, it becomes possible to analyze the underlying economic systems of a game and, for example, connections to revenue models. In relation to *interface study*, Consalvo and Dutton recognize the importance of the interface for specific games, and the importance of the interface design for games in general (see Laurel, 1990). The interface does mediate the actions of the player to the game engine, and the state of the game to the player, and is such a central component of gaming that game reviewers often place a great deal of focus upon the “usability” of the interface. Finally, the *gameplay log* presents a methodological framework for analyzing the game world. For example, a key question that can be answered with a gameply log is: “*Are there situations that appear that the producers probably did not intend? What are they, and how do they work?*” (Consalvo and Dutton, 2006). The *gameplay log* is tasked with “the exploration of emergent aspects of the game” (Consalvo and Dutton, 2006), which in the case of WoW can also mean the emergent effects of the interaction of the game and interface modifications. This category, which makes *gameplay* as an object of analysis, makes it possible to discuss the impact an interface modification has on the design of the game, again, by looking at resultant play.

These categories proposed by Consalvo and Dutton (2006) can be found also, albeit in slightly altered form and focus, in the work of Malliet (2006) (the two articles were part of the same journal special issue). While Malliet (2006) writes about add-ons and mods not in the sense of interface modifica-

tions, but as new levels, maps, and games created by players, he makes a valid point for the methodological challenge of studying games that are in so many ways a moving target. Besides the already different ways in which players can experience a game, the addition of layers of player-created content add another level of complication:

The existence of these add-ons makes it very difficult to determine under what conditions a modification should be considered a distinct software product (and thus worthy of a separate analysis), and under what circumstances a modification should be considered a mere variation to the source game (and thus be analyzed as a level or location in an existing game). On top of that, the fact that the most popular online games nowadays dispose of a growing database of user-defined maps makes it practically impossible to make an analysis of the complete ‘text’ of a game title. (Malliet, 2006)

An advantage of the game analysis tools by Consalvo and Dutton (2006) is that it allows a comparison of the foci of the game design analysis performed in the different studies. While this tool set has not been mentioned in the individual papers, the set is especially relevant and useful from the perspective of this umbrella document in order to compare the methods of the studies, and to show how they are integrated into a coherent framework of game design method.

In addition, mods are a central part of gaming culture (Karppi and Sotamaa, 2012), and are even key elements in innovations in both game design and play (Ashton, 2011). This means that the game (as an object of study) becomes something that is made up of multiple layers of code and design. Even the hardware the game is played on becomes an important part of the experience, as much so as the culture around the game or the other players one is playing with or against. Karppi and Sotamaa (2012) offer the example of modding the hardware of the game in their case study of *DJ HERO* (Free-StyleGames, 2009) with a rubber band. The construction of a game from many different parts that come together to form what is “play” has been described with the theoretical model of an “assemblage” (Taylor, 2009, p. 332) used in Study II to describe the way an alternative mode of accessing a part of the game – even a part of the game interface (the guild chat and the auction house) – changed the both the resultant play activity and game culture.

Malaby (2007) sees the process of constant creation as the very nature of play, and the game as always containing “the potential for generating new practices and new meanings, possibly refiguring the game itself” (102). Thus, games are by nature moving targets for data collection. Malliet’s (2006) suggestion is that the researcher needs to be reflexive about exactly what game is being played and needs to state what modifications, devices

and play styles have been used. Any act of play, though, is just one of many and thus not representative. Again, Aarseth's (2003) suggestion to augment one's own play with community media is central. However, even while bringing in other perspectives on a game, it is difficult to generalize and to say anything about a game that is supposed to be valid for all players. However, in the context of this dissertation this problem has been addressed by using play experience in addition to game analysis in order to find and present critical case studies. The case of add-ons and the conflicts around them that are analyzed in this dissertation have been specifically chosen for the particular argument and are not representative for all player-created content, nor randomly chosen. For example, when discussing the software artifact as a border for game design, cases have been chosen to be as similar as possible (except for being inside or outside of the software artefact) to make a comparison possible. They can be considered an example of the notion of "critical cases" addressed by Flyvbjerg (2001).

The Qualitative Interview

Qualitative interviews, while not suited for testing hypothesis (Crouch & McKenzie, 2006: 488) are useful for understanding the detailed and complex reality of human beings, and the way they understand the world (e.g. Geertz 1973; Brinkmann & Kvale, 2005). The aim of these types of interview is, according to Denzin (2001: 24), "to create critically empowering texts [...] criticize the world the way it is, and offer suggestions about how it could be different."

Qualitative interviews give access to meaning that interviewees themselves have constructed, and they allow the researcher to enter the *hermeneutic circle* (Bourdieu and Wacquant 1992, s. 108) of the interviewee and to gain an understanding "which do(es) not depend on delineated categories and the numbers of 'hits' in them, but rather on thematic strands extracted from the material by dint of researchers' interpretive and conceptual efforts." (Crouch & McKenzie 2006, s. 488). This also means that the knowledge of the interviewer about the subject matter increases with every interview (Kvale 1997; Kvale & Brinkmann 2009). The result of this process is that the interview guides become less standardized and begin to become focused areas for discussion. This method is called "unstructured interviewing" (Fontana & Frey, 2005: 705), or "focused semi-structured interviews" (Minichiello et al., 2000). As described by Minichiello et al. the topic of the interviews remains constant over time.

An interview guide or schedule is developed around a list of topics without fixed wording or fixed ordering of questions. The content of the interview is focused on the issues that are central to the research questions, but the type of questioning and discussion allow for greater flexibility than does the survey-style interview. (Minichiello et al., 2000:92)

An interview is not uni-directional. Instead there is always the possibility that the interviewer influences the interviewee, for example by answering her/his own question or by utilizing different forms of listening. (Fontana & Frey 2005: 710) That means that it becomes important to reflect on the influence of the interviewer on the interview. This point is especially important if the interviewer has a particular form of power over the interviewee. In the interviews for this dissertation, the interviewees were not dependent on the interviewer and regularly interrupted statements made by the interviewer's summary of what had been said in order to clarify or even contradict. Interviewees also allowed the use their actual names, as well as the aliases they used in the community. So while ICTs and social networks do provide a challenge for ethical work protecting the identity of informants (e.g. Miller 2006) this has not been a problem in this case. The interviewees were chosen as experts in the areas of respective study, and were recruited by contacting them online. The interviews were conducted over Skype, and recorded using free skype recorder. The transcriptions were based on the recordings, with interviews lasting between 60 and 150 minutes.

Generalizability

Qualitative interviews and qualitative research in general is often criticized for producing results that are not generalizable. While limits to generalizability would not necessarily be a problem because the aim is to create new theory and perspectives (Widerberg 2002: 188), it is still important to discuss issues of generalizability.

Internal Generalization

According to Maxwell (1992) internal generalizability (in contrast to external generalizability) refers to generalizing within the studied cases or people to settings and events that were not observed. Brown-Saracino et al. (2008) use the term "lower-order generalizability" to describe a similar concept and contrast it with higher-order generalizability. Lower-order generalizability is the generalizability of findings within the unit of analysis. *Miles and Huberman (1984: 41) have formulated advice for creating internal generalizability in qualitative research:*

If you are talking with one kind of informant, you need to consider why this kind of informant is important, and, from there, which other people should be interviewed. This is a good, bias-controlling exercise (...) Remember that you are not only sampling people, but also settings, events, and processes. (41)

This advice has been useful for the choice of interviewees for this dissertation. The experts interviewed have typically been people who have had contact with and an overview over several of the areas relevant for this work: their positions as players, player creators, community managers and professionals at companies (working with player-created content) already secures some level of internal generalizability. However, there is one perspective from which the selection of interviewees could be criticized: all interviewees had been working in central positions in their multiple communities for a long time which indicates that they were at least somewhat satisfied with the situation and not necessarily the most critical of the way player-created content was produced and exploited. It could have been beneficial to interview former community members that had left after a conflict or suffered from problematic practices of Blizzard in some way. From the critical perspective of this dissertation this is to some extent an error “on the safe side” as it precludes a jump to conclusions that could have happened when predominantly interviewing dissatisfied community members. The interviewees from this perspective represent a group who are least probable to vocalize support a critical perspective on player co-creation.

Analytical Generalizability

Analytical generalizability is a form of external generalizability or higher-order generalizability that can be supported by qualitative research. Yin (2003: 32–3) states that the empirical results of qualitative research can be compared to previously developed theory and, if the data supports the theory, then it can be seen as a replication of the original creation of the theory. Bryman (1988: 50–4) and Yin (2003: 47–51) argue that this is a way to test theory by using cases (Maxwell and Chmiel, 2014:540-553). This dissertation uses interview data to relate back to previous theory. However, it also connects and combines previous perspectives to better explain the data. Scriven (1974) calls this use of qualitative research towards theory development the “modus operandi method” which can be used to “indicate which theory (or some combination of these) best explained the data” (Maxwell and Chmiel, 2014:549). The development of new theory from qualitative data, while not supported by Bryman (1988: 50–4) and Yin (2003: 47–51), has been discussed since the development of the concept of grounded theory (Anyon, 2009; Dressman, 2008; Glaser, 1978; Maxwell and Mittapalli, 2008). These approaches to theory construction from qualitative data aim to

use the aforementioned detail of qualitative data, the narrative it tells, to answer questions of “why” that cannot easily be addressed with coding and quantitative methods. (Maxwell and Chmiel, 2014:545) While this dissertation does not explicitly follow a grounded theory approach over but instead connects and combines previously existing research, it does also take the next step of developing new theoretical concepts to fill in and the holes that are left when adapting existing media theory and game studies theory to the cases of co-creative game design as alternative media.

4. Summary of Studies

Structure of the Thesis

As mentioned in the introduction, the core of this dissertation consists of six published studies. This chapter will provide an overview of these studies, their relationship to each other, and their role in the dissertation. Table 1 provides an overview, detailing the aim, theories and methods used and the relevant research questions. After this, summaries of the individual studies will be presented.

First, a reminder of the research questions guiding this study:

1. To what extent does player co-creation of game design allow the co-creation of games as alternative and critical media?

1.1: Based on the mechanisms of player co-creation, how can we define co-creative game design?

1.2: What influence does the industrial production of games have on the level of participation of player co-creators?

1.3: In what ways does co-creation enable a re-framing of mainstream games as alternative media?

Table 1. Studies included in this Thesis

	Aim	Theory	Primary Method	Secondary Method	RQ
I	“...examine the extent of additions that are incorporated into the standard <i>World of Warcraft</i> interface to see how much of the innovation can be attributed to the creativity of the community.”	Co-Creation Critical Design Methodologies	Interface Study	Expert interviews Participant Observation Community Data Collection	1.1

II	“...discuss how these mobile applications for <i>WoW</i> also reconfigure social, technological and generic (within gaming) relations.”	Critical Play and Critical Games	Interface Study Gameplay Log	Participant Observation	1.1
III	“...offer a theoretical framework for understanding the potential of player co-creation in games in order to create spaces of free imagination and resistance.”	Co-Creation Alternative and Critical Media	Expert interviews Gameplay Log	Participant Observation Community Data Collection	1.1 1.3
IV	“...propose a theoretical framework for analyzing if a certain feature has been introduced into the design of a game in order to increase the financial profit created over a specific revenue stream” that has “negative consequences for the players, or limit the potential of the game to be a persuasive game.”	Business and Revenue Models and Game Design	Object Inventory Gameplay Log	Expert inter- views Participant Observation Community Data Collection	1.2
V	“...present the design vision and theoretical framework of a digital tool for ethical decision making that will be implemented in the virtual world <i>World of Warcraft</i> .”	Games for Social Change Procedural Rhetoric and Persuasive Games Critical Design Methodologies	Participant Observa- tion	Object Inven- tory	1.3
VI	“...proposes a model for co-creation of games as alternative media. The model uses actual play practices to understand the political and cultural influence co-creation might have in the relationship between the owner of the game and the players.”	Co-Creation Alternative and Critical Media	Interface Study Gameplay Log	Participant Observation	1 1.1

Publication Venues

All publications were peer-reviewed, and the studies reflect the place of the dissertation between game studies and media studies. Two studies have been published in media studies journals: *Continuum: Journal of Media & Cultural Studies* and *Questions de Communication*. Four studies have been published in venues focusing games: one in the *The Journal of Gaming and Virtual Worlds*, and two in the proceedings of DiGRA, and one in the proceedings of Meaningful Play.

Study I

Prax, P. (2012) Co-creative interface development in MMORPGs – the case of World of Warcraft add-ons. *Journal of Gaming and Virtual Worlds*, 4(1) 3-24. DOI: 10.1386/jgvw.4.1.3_1

This study investigated the extent of the influence of add-ons on WoW. As Blizzard tends to incorporate the functionality of popular add-ons into the default interface of WoW there was a possibility to investigate to what extent the default interface of the game had been based on, or copied from, player-created add-ons. The aim of the paper was “to examine the extent of add-ons that are incorporated into the standard *World of Warcraft* interface to see how much of the innovation can be attributed to the creativity of the community.”

For this study all patch notes for WoW from (including before the official launch of the game) were collected from the official Blizzard website. This led to a list of all the patches related to the game’s interface with a special note whenever there is a new interface element introduced or an existing one changed (there is also information about changes to the API that make up the bulk of the interface patch notes). This list was then compared to all downloadable add-ons on curse.com. Each new interface element was compared to all add-ons. The change log of the add-on, meta-data about the development of an add-on that is available on curse.com, was used to make sure that it existed before the interface change. Matching add-ons were compared in detail to the introduced interface element in terms of graphic representation, usability, customizability, and the problem they solved for the player.

This task was aided by the play experience of the author, who had over years been following the development of add-ons. The result of this analysis was consolidated with interviews with experts for two reasons. First, they helped make sure that no important cases were missed; and, second, the interviews contextualized the information about the inclusion of add-ons in the default interface with information about production, the history of add-ons, the

company and the connections between add-on authors and Blizzard employees.

The study showed that while many of the implemented add-ons were inspired by a previous add-on, they were not entirely the same, and that the inclusion of an add-on into the standard interface typically leads to a simplification (in order to increase usability while decreasing customizability). The main result of the paper, then, is that the “innovations of add-on developers are crucial for the development of the interface of World of Warcraft and that the interface of this game would not be as sophisticated and effective as it is now without them” (Prax 2012). The article shows the links of this co-creation of the interface to critical literature, and presents an example of a conflict between modders and Blizzard where Blizzard disabled an add-on because it interfered with their game design.

Study II

Christensen, C. and Prax, P. (2012) Assemblage, Adaptation & Apps: Smartphones and Mobile Gaming. *Continuum: Journal of Media & Cultural Studies*, 26(5), 731-739. DOI:10.1080/10304312.2012.706461.

This article investigates a number of smartphone apps connected to WoW. The first two apps, *The Remote Guild Chat* and *The Remote Guild Chat* take a certain aspect of the virtual world of WoW and make it available on the phone: the auction house function which allows players to buy and sell in-game artifacts, and the guild chat that allows players to chat with the other members of their Guild (a form of in-game ‘club’). *The Battle.net Mobile Authenticator* is used to provide an extra layer of security to make sure that only the player can access her account, and finally *the World of Warcraft Mobile Armory* provides access to a database with WoW-related data, including information on the available WoW avatars, items that can be acquired, and much more. The first two applications are the most relevant for the purpose of the dissertation as they allow players to access in-game functions in a different way.

This article took the theoretical perspectives of adaptation (e.g. Goggin, 2009a; Farnsworth & Austrin, 2010) and assemblage (e.g. Taylor, 2009; Goggin, 2009b) to discuss how mobile applications for WoW reconfigure social, technological and generic (within gaming) relations. *The Remote Guild Chat* for example changes the way players understand the guild chat. For this study all apps related to WoW and published by Blizzard were purchased and tested. The official announcements by Blizzard about the apps were collected with the help of the blue tracker, a gaming community tool that creates a blog with all official communication by Blizzard employees on

the web. The apps were then analyzed in terms of their functionality in relation to the full game in order to see which parts of the game were made available through the apps. Websites that offered similar information to the one offered in the apps were analyzed and tested.

The paper concluded that applications like the ones discussed can lead to social consequences not only in the game as they allow the extension of the (social) pressures of the game into other parts of life and into non-screen time. However, the central aspect is that these applications, even though they software outside of the packaged game, still change the way the game is being played down to the social conventions in gamer groups. These applications are useful examples to show how technological actors can change the assemblage of the game.

Study III

Prax, P. (2014) Co-Creativity in Online Games as Alternative Media, *Questions de communication* – forthcoming.

This paper continues the investigation of the possibility of co-creative game design, adding to it the political aspects addressed in study I. This study began with a search for the online tool. Over an old guild website that also hosted the tool it was possible to make contact with the creator of the tool to then arrange an over two hour long in-depth interview over skype. The creator also put the tool back online after the interview. This made it possible to analyze the tool and its connection to the design of the boss encounter. The analysis of the tool in relation to my own experience of playing the game made it possible to understand the impact of the tool on the actual play practice and thus to see it as a part of the design of the game. The emotional reason for both the design of the tool that also explains the widespread adoption of it could only have been found with the in-depth interview that was conducted.

The paper recognizes that in a hegemonic media system, where cultural industries produce media as a for-profit commodity (Gramsci, 1971; Chomsky, 2003), games and virtual worlds might have the potential to allow players to experience a system outside of these constraints and to "escape ideological politics" (Fenton, 2010:28) through co-creation of play. The paper discussed the notions of alternative and critical media, and moves toward a definition of alternative and critical media that focuses on the possibility to "challenge human consciousness so that imagination is potentially advanced and suppressed possibilities of development can potentially be imagined" (Fuchs, 2010:181), while discarding the normative limitations that are part of Fuchs' model of critical media. That meant that alternative media (as defined in this

paper) are not limited to media with alternative production models. It can include established media if they have alternative content leading to a reflexive approach to the dominant societal discourse.

Following this theoretical discussion, a number of factors were identified as central to characterize any game co-creation as alternative media:

1. Player creation of a text or communication infrastructure that modifies the properties of the game and from which play emerges
2. for a considerable group of players who share a particular practice of play
3. not only by playing the game but by changing how others play it in a distinct creative activity
4. with the potential to subvert or contest the original design of the game.

The first three criteria are motivated by the theoretical discussion about co-creation in games across media. The first stresses that co-creation is not limited to changes in the game software, but can happen in other media as long as it has an impact on play. The second takes into account mangle (Steinkuehler, 2006), the assemblage (Taylor, 2009) of play and vastly different play styles. It underlines the importance of researching different practices and defining co-creative game design in respect to each sub-culture. The third criterion limits co-creativity to distinct non-play activities in order to keep creative play in virtual worlds out of the definition. The fourth criterion is a reaction to the critique of player-created content as a continuation of the existing power difference of the player creators to the original producers of the game. This criterion does not assess if co-created content contests the original design but if it has the potential to do so.

Study IV

Prax, P. (2013) Game Design and Business Model: An Analysis of Diablo 3. *Proceedings of DiGRA 2013*, Atlanta: USA.

This paper moves away from WoW to investigate the *Real-Money Auction House* (RMAH), a feature of the game Diablo 3, for a discussion of the influence of a business and revenue model of a game on its design. The RMAH allows players to trade their virtual items for real money while Blizzard collects a fee for every transaction. While this paper is more limited in relation to co-creation, it dovetails with the overall dissertation aims by creating a theoretical framework for assessing if a revenue or business model

has a negative impact on game design. This framework can be used to analyze if business reasons limit the potential of co-creation for a game.

This paper began with an analysis of the business/revenue model of Diablo 3, including the pricing of transactions in the RMAH and the fee for cashing out the Battle.net account. The next step was an analysis of the design of Diablo 3 with a focus on the rules for the creation of item drops in Diablo 3 and Diablo 2. At this point it was necessary to look not only at the dry rules of the game but to incorporate play and the (social) outcomes of these rules into the understanding of game design. This was made possible by using responses and reactions of players in the community, on forums, blogs, and in YouTube videos. While this was not a production study, the addition of the collection of official communication from Blizzard does provide a measure of producer perspective. The communication of Blizzard, as well as an overview over the central topics in the community, was provided by *Diablofans.com*: a news blog and community site around Diablo 3 that is part of the Curse.inc company. This site also features a “Blue Tracker,” a tool that collects and presents all official Blizzard community managers’ statements and makes it possible to follow all communication by Blizzard. This website also made it possible to follow central community members, players with large number of subscribers and with content that is featured on community sites, and to watch videos about Diablo 3.

The material that was chosen for analysis in this paper was not picked randomly. In order to show how revenue models can be linked to problematic design it is not necessary to claim that every design decision is driven by this. An alternative here could have been a production study of Diablo 3. Production studies have been done in game studies where researchers who have been working on game companies have been using this access for their work (Zabban, 2011). Ultimately this is the only way to be able to claim a causal relationship between a design feature and any reason or motivation. However, for the purpose of this paper the Diablo 3 RMAH is an example to discuss the notion of the influence and limitations on the game design based on the revenue model and a production study would then in turn also not allow generalization to other games.

The final collection of criteria that taken together indicate that the revenue model has a negative impact on the play experience looks like this:

1. Revenue Generation: A feature of the design of the game that in some way increases the revenue generated over the RMAH.
2. Game Design and Business Model Integration: The feature of game design needs to be deeply integrated into the design of the

game in a way that the business model and the design of the game are purposefully aligned.

3. Problematic Game Design: In order to be able to scrutinize relationship between business model and game design the game design feature needs to be problematic in that it either includes elements that are seen as negative in game design literature, have negative consequences for the players, or limit the potential of the game to be a persuasive game.

The way items are generated and traded in Diablo 3 invites back age-old design problems of virtual world and online games such as mudflation (Castronova, 2005), a kind of currency inflation in virtual worlds first observed in multi-user dungeons. Similar to currency inflation for currencies in the physical world, mudflation is caused by an increased creation of currency in comparison to commodities on the market leading to a loss of currency value. For high-end players (who also control the most resources) only the latest generation of equipment is of any value while anything older and weaker is near worthless. Such an economy is disadvantageous for every denizen of the virtual space except of a few very rich high-end players. The problem of mudflation, however, has been solved. In WoW, Blizzard managed to stop mudflation by making it impossible to trade items that had been worn (and for rare items, picked up) as they then became immediately bound to the wearer. The article argues that mudflation was re-introduced as a side-effect of the desire to facilitate player trade in Diablo 3.

While it is impossible to know the actual reason for a particular design without conduction a production study of the title, many of the conclusions of this paper have been solidified after publication when Blizzard released an expansion to Diablo 3 that, listening to player feedback, changed many of the problematic design features addressed in the paper.

Study V

Prax, P. and Laaksoharju, M. (2012) Democracy has arrived! A Model for Ethical Decision Making of Players in MMOs. *Proceedings of Meaningful Play*, East Lansing: USA.

This paper is a theoretical design document for an add-on in WoW. This add-on is based on the collective ethical decision-making tool by Laaksoharju (2014), and is an attempt to turn WoW into an alternative medium through co-creation of the interface. The paper discusses the possible real-life implications of such an add-on, and compares the communication and leadership infrastructure in the game with code of other digital media and acknowledg-

es the inherent political nature of all (digital) infra-structure as “frozen discourse” (Strauss 1993, in (Zabban, 2011:4).

The paper acknowledges that the infrastructure of the game does not determine the social outcome and the play resulting from the game. Players can subvert structure of the game though play themselves without the help of interface modifications. Critical play is thus accounted for. However, the purpose of the add-on is then to supply players with means to modify the power structure built into the code of this virtual world and to support more ethical and democratic decision making in the game more simply. This study is a theoretical design document and does not feature a data collection. However, it does present information about the leadership infrastructure of WoW that has been collected during play. Information about the affordances of leadership in parties and raids have been collected leading parties and raids hundreds of times while guild leadership options were explored with an empty guild set up for this purpose to test how the system works defining positions and giving power to them.

Study VI

Prax, P. (2015) Co-Creative Game Design in MMORPGs, *Proceedings of DiGRA 2015*, Lüneburg: Germany.

This paper develops the definition of co-creative game design introduced in study III. While using a number of empirical examples, the focus of the paper lies on the presentation of theoretical arguments for the definition of co-creative game design. The paper defends the definition against a number of critiques regarding this specific mode of defining co-creative gamed design. The engagement with these critiques is used to develop the definition of co-creative game design further, and to contextualize it in relation to previous perspectives on game design.

Specifically the study explains why just play should not be considered co-creation, why neither the limits of the software artefact of the game nor those of the game production company are useful for the demarcation of game design, and why player co-creation of game design is not corollary but can be an original creation. The study concludes that co-creative game design fits the proposed definition and that this definition can serve the examination of ownership, modes of cultural production, and exploitation.

5. Co-Creation and Industrial Production

On the basis of the conclusion of both studies IV and VI this chapter critically examines how the possibilities for co-creative game design are influenced by the producer of the game, and the production of games as cultural commodities (related to research question 1.2). The political perspective of that definition of co-creative game design will be a central part of this discussion. The chapter will critically examine a framing of co-creative game design as open innovation and the position of player co-creators as empowered participants. The definition of co-creative game design is repeated here for the benefit of the reader:

Definition of Co-Creative Game Design:

1. Player creation of a text or communication infrastructure that modifies the properties of the game and from which play emerges
2. for a considerable group of players who share a particular practice of play
3. not only by playing the game but by changing how others play it in a distinct creative activity
4. with the potential to subvert or contest the original design of the game.

Figure 2 Definition of Game Co-Creative Game Design

Co-Creation as a Collective Effort to Create Something Shared – Gaming as “dugnad”

The Norwegian concept of dugnad, defined as the “a way of solving local, common task by means of collective efforts from the community”(Lorentzen, 2012) is a useful starting point for considering the political economic tensions within co-creation and playbour, and the need for examining power positions when looking at co-creation of culture. In its purest form, the concept of dugnad is divorced from notions of profit and economic gain, and is related to (collective) labour in the service of the common good. A typical example for dugnad would be a village or neighborhood working

together to clear snow and dirt from a football field so that everybody can play there. Many processes of collective creation of culture rely on this type of gifted labour; without free labour a considerable part of our contemporary society could not be maintained, as in sports clubs rely on unpaid work on the side of trainers, coaches, and parents. This point resonates with co-creative game design since player co-creation also enables people to participate in leisure activity and collectively build shared culture. Participants in this kind of collective efforts participate as citizens. In relation to games, this ownership of and full control over their labour stands in stark contrast to the reality of player co-created game design. The participatory creation of text-based games like for example DikuMUD with its openness for modification, shared ownership, and even licensing forbidding the use the games in for-profit activities can be understood as the collective creation of shared and co-owned culture and as *dugnad*. The overarching point is that collective labour, even if performed without any profit motive, can nevertheless serve the interests of capital, and therein can be found the tension, and, thus, why the concept is useful in relation to phenomena such as co-creation. A useful starting point for a discussion on co-creation, therefore, is the presentation of an argument (from Banks, 2012; 2013) in which co-creation is seen as a mutually beneficial activity, where both co-creators and game owners reap benefits from the relationship. This perspective is then countered based on the research presented in this dissertation: thus a response that serves as a *de facto* answer to research question 1.2.

Co-Creation as Open Innovation

A prominent perspective on co-creation of digital games comes from Banks (2013; 2014) who frames it as a form of open innovation. Open innovation has been hailed as the disruptive new form of cultural production in which organizations pool resources and knowledge to create a mutually beneficial environment of shared innovation. (Chesbrough, H., 2003; Benkler, 2006). This perspective stresses the similarities between cultural production, shared collective creation and *dugnad*. However, at the same time, open innovation has been criticized for exploiting unpaid labour of co-creators (Ross, 2009:21-2) with “blatant attempts by incumbent corporate players to cash in on the rise of collaborative content production without embracing the core principles” (Bruns 2008:255) in an industry that is making heavy use of users/players as co-creators is the digital games industry (Postigo, 2007; Arakji and Lang, 2007; Banks and Potts, 2010; Banks, and Humphreys, 2008). The use of player labour has also here lead to discussions around exploitation (Terranova, 2000), precarity (Kücklich, 2005), and power struggles (Kow and Nardi, 2010A).

The open innovation perspective (Banks, 2013; Banks and Humphreys, 2008) explicitly de-prioritizes a political economy perspective. There are four main motivations presented in their work: (1) player creators enter into the relationship with the game company with the understanding that they will work for free; (2) there is a mutual benefit as a result of the collaboration of players and the production company; (3) players enjoy their co-creative activities (they are already getting something out of it); and (4), the producers have to invest resources, labour and skill as well deal with, enable, react to, player creators.

Awareness and Exploitation

In an interview with Henry Jenkins (2014) on co-creation, Banks stated the following: The co-creative relationships cannot easily be reduced to corporate exploitation of the gamers and the professional developers. I try as much as possible to take my lead from the often quite nuanced understandings of the participants themselves. *I struggle with the assumption that there are social forces (exploitative and manipulative) at work behind the actors' backs as it were.* (emphasis added)

The argument, of course, here does have merit. Critical researchers often frame relationships as exploitative even when knowledgeable and informed participants do not see it as such, and this tension needs to be explained. There are, however, player creators who do see their relationship to production companies as exploitative, and there are documented conflicts between player creators and production companies around the question how players can monetize themselves on their creations (e.g. Kow and Nardi, 2010A). In addition, the notion of “mutual benefit” features prominently in Banks’ (2013:8) writings about player co-creation. He does not expand upon why mutual benefit would preclude exploitation. A factory worker and a factory owner also have a relationship of mutual benefit to each other. One gets work and payment and the other gets labour and surplus value, yet the relationship can still be exploitative. This argument is central in Banks’ (2013) work and there is an important point to make in that player creators do use their own creations, that players are glad to work for free to change the games they are passionate about, and that giving some tools and attention to player is better than none. However, that player creators get something in return for their labour does preclude a critical perspective. With the notion of player co-creation as a form of play (Sotamaa, 2010) this perspective is also connected to the relationship between player enjoyment and co-creation.

Enjoyment of Free Labour

The main argument here is that if player creators would not be rewarded by something despite being financially exploited they would stop contributing. Hence they must get enjoyment or social status from the process. However, it can also be a feeling of responsibility, fear of social exclusion and loneliness, or other forms of pressure that drives a person to work. Not all motivations to work are created equal. A player creator might be pressured into updating a mod she made by the large player community she does not want to let down (Pargman & Jakobson, 2006). Many of these situations of pressure to work are characterized by a disempowerment of workers in relation to a powerful organization. The point here is not that player co-creators do not enjoy their co-creation, but rather that that this cannot be assumed, and that there is the need to discuss the control and rewards they get for their labour. The story of modders landing industry jobs because of their free labour leading to financial rewards is not the norm.^{vii}

Producer Effort

A central focus of my book is how developers grapple with the challenges and opportunities of co-creative production at the coalface of their everyday workplace – the game development studio. Co-creativity is not just about the bottom up, peer-to-peer participation of gamers and fans. Co-creativity requires the craft skills and knowledge and commitment of professionals and experts. (Banks in Jenkins, 2014)

This argument is similar to the argument against co-creative game design from Study IV that relegates player co-creation to corollary design. In addition to the points made there it can be said that the importance of the contribution to the design of the game by players is not diminished because the game production company also worked in creating the technical requirements for co-creation. In the case of WoW, it is not even the case as players initially hacked the game interface to create add-ons which was legitimated only as an after-thought by Blizzard.

Treatment of Player Co-Creators

The API of WoW was originally not planned to be open for player modifications but players began changing it using a similar technique to the one used then modding Warcraft 3. This means that it is understandable that at first there was no documentation of the API for player creators. However, even after add-ons had become a staple of WoW interface development, “Blizzard does not publish a list of available API for each WoW versions but provides information on changes in XML and LUA on its forum about customized

interfaces. [...] However, some benevolent players update this list” (Davidovici-Nora, 2009:62). One of the players who compiled a list of the entire API of WoW was one of the interviewees for the studies, and explained the exorbitant amount of work connected with this documentation. Even on an ongoing basis, Blizzard does not offer easy and accessible information about changes in the API, but relies on the player creators for ordering and making information accessible. This treatment of player creators suggests that the resource commitment from the company to the player creators is not substantial and that player creators are not considered as equals but as disposable. It is telling that Blizzard, in the incident described by Kow and Nardi (2010A), threatened player creators with legal action if they solicited donations for their add-ons in-game.

Limits of a Political Economy Perspective

I’m just not convinced that political economy critique adequately grapples with the flows and exchanges of value characterizing co-creativity. These flows can be very different from say a displacement of professional labour by unpaid creative labour. Instead we need approaches and models that grapple with how economic outcomes and incentives sit alongside and co-evolve with social and cultural outcomes. But in all this yes the question of labour is crucial. (Banks in Jenkins, 2014)

Here Banks points out one problem with a critical Marxist perspective as held for example by Fuchs (2010B): an inability to differentiate between different intensities of exploitation. If player co-creation is always automatically exploitative then there is little more to say. The theoretical perspective does not promote any better understanding of these complex practices and structures or the power relations between company and co-creators. An alternative to this somewhat dichotomous perspective on exploitation can be found in participation, which is an anchoring concept when addressing question 1.2.

Participation in Co-Creation

Levels of Participation

Participation and participatory design is a perspective that is not too far removed from co-creation. There is even a definition of co-creation that mentions consumer participation: “‘co-creation’ is used to describe the phenomenon of consumers who increasingly participate in the process of making and circulating media content and experiences” (Banks and Deuze, 2009). Arn-

stein's ladder of participation (mentioned above) is useful exactly because it allows for the taxonomy of participation in a process. As discussed above in the theory section, a new kind of cultural production as proposed by OI would (in terms of participation) be understood as a real partnership requiring a high level of participation. The fourth condition of co-creative game design in the model proposed in this thesis – the potential for subversion – is in effect a requirement of a particular level of participation, a particular amount of power on the side of the co-creators, which needs to be present in order for co-creation to not just be corollary. Co-creation implies a partnership between equals. It is not a form of sub-creation where one party gets to create as long as the other does not mind or where one party has no chance of speaking up for their rights or interests. On Arnstein's ladder (1969) this is the 6th level and the first one of the top group of citizen power. The review of the history of MMOs and DikuMUD has shown how these games were created as participatory, alternative media in the past. With MMOs now being produced as a commodity by cultural industries (Hesmondhalgh, 2007) for profit, this equal participation of player creators is threatened despite their co-creation of the game's design. It is the impact of the production of MMOs for profit on the participatory creation of online games that is analyzed here. This chapter then takes a closer look at the conflicts between player-creators and game producers through the lens of participation levels to analyze the power relationship between player creators and game publisher and investigate whether the production of MMOs through open innovation does afford real participation and co-creation.

Conflicts and Cooperation

The discussion about power above already hinted at conflict between modders and producers of WoW. Kow and Nardi (2010B) describe in detail a case of a substantive conflict between Blizzard and the modder community around the right of modders to solicit donations for their add-ons in-game. In these conflicts game producers often overpower the add-on community (Kow and Nardi, 2010; Johnson, 2009), for example enforcing intellectual property by means of legal actions or at least threatening to do so (Burke, 2010; Lastowka, 2010). This conflict between legal rights and the power to shape and enforce them and the cultural perception of justice that is at the heart of conflicts here is captured well in a quote from an interviewee of Targett et. al. (2012):

While I understand that Blizzard is legally permitted to "steal" UI mods and incorporate them into the standard interface, there are programmers out there who are devoting a lot of time and energy to making their mods great, and when Blizzard implements the functionality, they are doing these members of the community an injustice.

While there are well-documented cases of conflict between the modder community and Blizzard it is important to also mention that cooperation (and even collaboration) is possible. Kow and Nardi (2010B) show that the cooperation of employees working on the interface of WoW inside of the company have been of substantial importance in the development of mostly the North-American add-on community and that this cooperation has pushed the innovation of that community for example in comparison to the Chinese community. For now, conflict has been a major topic in this analysis while collaboration has not been mentioned. However, collaboration between player creators and game producers does exist and is important to keep in mind, also because it shows that an analysis based on a business model does still need production studies in order to be able to make any claims about the real motivations and reasons for decisions in media production. An example here is the development of an add-on that enables players to move their avatar by clicking on an interface element with the mouse. These examples have been collected during the field-work for study I and tie into the investigation of the mechanism of co-creative game design. The add-on had been requested from the modders as *WoWinterface* by a handicapped player who was enthusiastic about WoW, but could only use one hand to play and was thus unable to use the keyboard for movement while controlling targeting and the camera with the mouse. However, the modding community had been unable to help because the API of WoW does not allow for add-ons who to give movement commands to the avatar. A player co-creator contacted an interface developer at Blizzard who from inside the company had the means to open a passage in the API and wrote the add-on within a few days to then offer it to the community and the handicapped player free of charge. This is one example of Blizzard being in close contact with the development community sorting out problems and smoothing the communication which has been shown to increase the productivity and creativity of the modding community (Kow, Y. M. and Nardi, B. 2010B).

However, this example stands in conflict with another case: Another interviewee mentioned when talking about the way Blizzard was treating modders. This is the case of *Quest Helper*. *Quest Helper* was the add-on with the highest number of downloads during 2008-9. It offered additional information for questing and leveling by displaying the locations relevant for the quests on the map and even calculating the most efficient path for the player to take to complete all quests (by solving a version of the traveling salesman problem). The add-on was (according to the interviewee) so popular that whenever there was a new version of *Quest Helper* the servers of Curse.inc would go down because of all the downloads. Curse.inc has as mentioned above a freemium business model. A part of the money Curse earns from subscriptions (which are mostly connected to their add-on down-

load client) gets returned to the add-on authors depending on the number of downloads of the add-ons they are responsible for.

The developer of Quest Helper earned several hundreds of Euros because of the popularity of his add-on. He also received donations from Quest Helper users and used the money from these sources to pay his rent. Then Blizzard included the functionality offered by Quest Helper into the default interface of WoW. As a result the download numbers of Quest Helper reduced drastically and so did the financial reward for its developer. A gaming blogger predicted this course of events when Blizzard released its new interface and compared it to the case of *Outfitter*, a competing add-on to the above describes *Itemrack*:

Patch 3.3 hit the European World of Warcraft servers today (...) and brought with it a bunch of changes(...) also a new map system that integrates with your quests and shows you where they and where you need to go. Sound familiar at all?(...) No doubt it's not as fully featured as QH but it seems to do the trick and provide the basic options so one has to wonder... is this the end of QuestHelper? (...)It seems kinda sad in many ways that Blizzard have stolen the thunder from some of these great, independent addons and implemented their own versions. I can understand why they've done it – they've obviously looked at things like Outfitter and QuestHelper, seen how good and useful they were, and decided to integrate it as part of the standard game. In many ways, it must be quite flattering to the addon developers to know that they've influenced WoW in that regard. Still, it's likely going to have an effect on their popularity, number of downloads and cash donations/contributions. Gordon (2009)

Blizzard did not credit the creator of Quest Helper in the game. They did not warn him and they did not compensate him in any way. This acting without much regard for the modders certainly puts those player creators who rely on the income from their work as modders in a precarious situation and is in line with the way Blizzard treats modders also in other cases. Blizzard did not, for example, put effort into making the changes they made to the API accessible and left it to the community to parse the change logs and catalogue the changes in an organized way.

Power and Control

The use of player created add-ons has also been acknowledged by Blizzard. Micah Whipple (aka “Drysc”), a community manager working with the US forums of WoW and as such employed by Blizzard, stated:

We are constantly evaluating UI addons and their impact on the game, and while we continue to appreciate the directions players have taken their use, there are certainly cases where we have disagreed with specific functionality and worked to prevent it. There are also cases where we have recognized specific functionality as purely beneficial and positive, and implemented it into the core UI. (<http://forums.worldofwarcraft.com/thread.aspx?fn=wow-general&t=9529090&p=#post9537399>)

This statement is an example of how Blizzard monitors the development of add-ons and their effect on the game, and that while add-ons are useful from their perspective, Blizzard is prepared to use their control to enforce that their vision of the game becomes reality. There were a number of cases where Blizzard disabled add-ons because. “Blizzard felt these mods were changing the nature of the game by making it too easy” (Nardi and Kallinikos 2007:15). The fact that Blizzard can disable any add-on by changing the API indicates that Blizzard has complete control over the process of interface modification, as well as complete freedom to decide which add-ons are included into the default game interface. However, conflicts between player creators and Blizzard suggest that the company cannot exercise their control over the API freely without negative consequences. This warrants a closer look at such a conflict: the case of AVR, an add-on that enabled players to draw on surfaces in the game and to make their drawings visible for other players. This add-on functionality was quickly linked to add-ons that support players during boss fights in raids. This resulted in AVR automatically drawing color-coded shapes on the floor to indicate areas of danger or safe zones. This trivialized some of the boss encounters that had been designed to challenge the players’ spatial orientation in the game world by reducing a complex and difficult task to not standing in the red circles. AVR depended on a certain feature of the API: a default camera stance that allowed for the communication of generalizable coordinated independent of position of the player, to function. As a reaction to the rapid spread of AVR among the gamers, Blizzard removed this feature from the API and effectively made AVR defunct. Blizzard communicated to the creators of AVR that they were going to disable it and included a part of the original functionality of it, marking surfaces in the game for other group members, as functionality into the default UI (Prax, 2012).



Figure 3 AVR example pictures on the left, AVR in action in a raid showing the automated graphical information display in the game world in the middle (the red circles are where the player-character should not stand), and a drawing of Mega Man, created using AVR, on a busy square in the main city on the right.

This case is another example of Blizzard's control by changing the API features add-ons require. However, the case of AVR also shows that add-ons and interface modifications have the potential to interfere with the game design vision. Changing the API in order to disable a certain add-on would in most cases mean also breaking several others who relied on the same API features. This fact in combination with the popularity and of add-ons and their benefit for the players and the game means that Blizzard's tool for controlling add-ons is somewhat crude. Blizzard might have to disable a number of popular and beneficial add-ons and risk a backlash from their players in order to eliminate a single add-on. Outside of the control and limitation of the API Blizzard cannot influence the add-on scene, so while Blizzard has the technical possibility to fully control add-ons using this power might result in fallout, dissatisfied players, and consumer protest.

As discussed above, certain add-ons become required to play the game well or together with others. Raiding guilds would for example require their members to install certain add-ons that they believe are crucial for a good performance in the game. (Golub, 2010) Another case that has been mentioned earlier are damage meters where add-ons parse the combat log and represent the otherwise for human beings practically unreadable data in sophisticated graphs (Taylor, 2006a; Chen, 2009). These tools also allow for a (self-)diagnosis of players' efficiency and for the optimization of gear, talents builds, and ability rotations. Another case is boss mods that inform the players about the timers on the bosses' abilities and other events in boss fights. These forms of player-created content co-create the design of the game, meaning that, first, Blizzard has lost the ability to remove add-ons as doing so would have a negative impact on the games' playability and, second, that modders have gained a certain level of power over the game. The good player creators do for other players, and the fact that those players are

paying customers of Blizzard, is what gives them influence. Yet, this influence is still mediated by the market and only an expression of a consumer's influence through purchasing decision, not of power over public creations or control over a shared project, which would be required for true collaboration and co-creation (see Carpentier, 2011:130; Fuchs, 2014:56). Player-creators have (so far) not organized for to struggle for more rights or collective influence

Co-Creation, Exploitation, and Playbour

The "labour put into creating fan-made add-ons^{viii} can have considerable value scope" (Postigo 2007: 311), and add-ons can have a considerable impact on the practice of play and the community in and around virtual worlds (Taylor 2006a, 2006b, 2009; Chen, 2009; Steinkuehler and Ducan 2008; Sherlock 2009; Gee 2003). However, the creators of add-ons remain mostly unpaid, save for cultural and social rewards in the form of community connections (Nardi and Harris 2006; Nardi and Kallinikos 2007). The practice of a modder "working for the text" (Milner, 2009) and creating content for the game as a way of playing it (Sotamaa, 2009) leads to the need to dismiss the work-play dichotomy (Malaby, 2007). This has led to a critique of these commercial practices of appropriation of player labour as exploitation (Postigo 2010, 2007; Ross, 2009; Kücklich 2005; Terranova 2000; Nieborg and van der Graaf, 2008; Humphreys and Greyson, 2008; Humphrey, 2005) and can be seen as a symptom of the central problem of exploitation of immaterial and cultural workers in a capitalist production system (Dyer-Witherford and de Peuter, 2009; Fuchs, 2009). A term coined to describe this fusion of play and labour is "playbour" (Kücklich, 2005) which is linked to precarious working conditions of immaterial workers in today's cultural economy (Deuze, 2007). Also in the literature on co-creation in games, the question of the appropriation of player-created content is discussed as both a way to play, and as an industry practice whereby player creators agree to the exploitation of unpaid labour.

WoW has a competitive advantage over other similar games because of a superior interface. (Prax, 2012) WoW has been the biggest western MMORPG for several years, and while the interface is not the only factor it does play a role. The result is more players and subscribers to WoW resulting in higher revenue for Blizzard:

The list goes on and on. They have had six years now of people developing UI enhancements for the game. Anything that gets to a certain level of popularity I think they (Blizzard) look at... incorporating the killer functionality from that... into the main game in some aspect. As a result it has given them kind of a lot of leeway because the original UI wasn't... it is not that it was

bad but it just wasn't that good either. But since then they have been able to refine it to such a point where it makes it harder for other games to compete with them just on the user interface level. There is a lot of add-ons that they have done that with. A lot of 'em...(Kaelten)(in Prax, 2012:13)

As stated above, Blizzard does not give financial rewards to add-on authors but does keep close social ties with central actors of the modding community and the companies that are active in it. However, Blizzard does not give credit for the ideas and interface features invented by player creators included into the default interface (such as *Quest Helper*). While many add-on authors do release their work under licenses that allow for commercial use without payment, they do require users of their work to assign proper credit. This is circumvented by Blizzard as the company does not copy the exact code of the add-ons, but rather creates their own version of it. This is problematic for a number of reasons. First, it undermines the argument that corporate appropriation of free player labour could lead to a professional position, because without credit modders will have difficulty proving their that it was their creative work. However, as crediting modders for their authorship of interface features would not invoke monetary costs for Blizzard, and would serve to reward and motivate player creators who are doing valuable work for the company, it is unclear why Blizzard denies authorship or credit.

Conclusion

The discussion of the power struggles and conflicts above shows that there is no relationship of equals here. The player/producer relationship constrains the co-creation of games, and control over the development and design of the game and ownership of the IP and the game, both necessary for co-creative cultural production, (Carpentier, 2011:130; Fuchs, 2014:56), are not shared. Authorship is seldom awarded to player creators, and while there are examples where player creators have achieved some control over the design of the game and some influence that the publisher cannot remove, this influence comes from either the collective customer power of the users of add-ons or from the personal friendships and connections player-creators have built with company employees. Also, there are instances of real cooperation and partnership where player creators and the production company work together for shared goals. On the other hand, there are instances where the company, Blizzard, threatens player creators with legal action if they do not comply with demands. In these instances the participatory relationship between Blizzard and the player creators dips down to the level of informing (or even manipulation) used mostly a means of community management instead of partnership or consultation.

It is important to bear in mind the limitations of this rather simple ladder model. Even in the single arena of player-created content in WoW there are many different cases and actors and their relationships changed over time. It is difficult if not impossible to set an overall “score” for how participatory the process of co-creative game design in WoW is. During the most creative periods of add-on production, the relationship between the interface designers and WoW can be seen as a partnership where player creators were not only asked for their perspective but had a real stake at the development of the game. However, shifting the perspective to the management and marketing of Blizzard reveals a very different picture where a company is wrestling to maintain as much control as possible over the design of a game, while also maintaining the advantages gained from player creators. This means that from the perspective of co-creative game design in WoW, the author is not dead (Barthes, 1984; Carpentier, 2013), but is alive and well. And, while players have gained some influence on the design of the game the ‘author’ (Blizzard), is both controlling players’ influence and patrolling their vision of the game through an institutional power position.

As a direct answer to research question 1.2 it can be said that the industrial production of games allows the game producer to limit the level of participation in the process of the production of the game. The co-creation of the game is not negotiated between power equals, which means that it does not reach the 6th level on Arnstein’s ladder (1969). However, when player creators are invited to contribute or use their means of power successfully there is the possibility for full participatory co-creative game design.

6. Co-Creating Games as Alternative Media

This chapter connects theoretical perspectives that have been outlined in the theory chapter in order to form the framework of the dissertation and make a contribution to research. Despite their similarity in both name and aim, the critical media and critical design perspectives are, generally speaking, not components of the same disciplinary areas and/or discourse. For example, while pervasive games are defined by Bogost (2009) based on their critical message that goes against that of the mainstream media discourse, there is no mention of critical media, alternative media, just as there is no discussion of games as potential alternative or critical media on the side of media studies. Building these bridges, connecting these discourses, and also showing the differences between the concepts, are a theoretical contribution of this dissertation. Further, this chapter aims to contribute to games studies by adding a new layer of perspective on the discussion of the relationship between player and designer.

Critical Game Design as Critical and Alternative Media

As explained above, the concepts of alternative media can be defined based on organizational structure or content. The central aspect of this definition is that alternative media are produced differently from other cultural industries' commodities. The differences can be found along the lines of requiring alternative production models (such as amateur labour), or a very limited local setting. The focus on production is echoed in the argument for queer game design, but also in relation to previous studies on persuasive and critical games. It is important to remember here that production is not the only difference, but that it is assumed that a different mode of production leads to a difference in content. For example, for queer game design, the "who" of the production is automatically connected to the "what" of the design:

Significantly, this "Twine Revolution" queers the norms of game design, from who does it to what they make to what success looks like. Queerness as a concept here is informed by Halberstam's (2011) "Hegemony of play" (Fullerton, Morie & Pearce, 2007)

This is also the case for persuasive games. While persuasive games are mostly defined by their use of procedural rhetorics to express an alternative perspective – Bogost calls games that stay inside the dominant discourse with their procedurally expressed meaning “Serious Games” – the games suffer from a lack of impact based on their inability to use established, commercial distribution platforms to reach broader audiences. Thus, persuasive games could be said to be the alternative media of game design: they are able to express alternative messages in an interesting way, but they have only a very limited impact because of the limitations of their production models. According to Fuchs (2010A) and Sandoval and Fuchs (2010) a similar problem plagues alternative media, thus their proposal for critical media that use established forms of production and distribution, and only differs in political orientation from the established cultural industries. The central focus on the content and message, and therefore also the political aim, is remarkably similar in all of critical, persuasive, and queer game design, and critical media. They focus on creating potential for a change in human consciousness, on opening up the possibility to imagine a different kind of society that is based on other, more human values. Compare, for example, Fuchs’ (2010:181) statement that critical media should, ”challenge human consciousness so that imagination is potentially advanced and suppressed possibilities of development can potentially be imagined” with Flanagan’s (2009:253) ideal for critical play: “Players may use this information and their experiences to alter social institutions we live by.”

Bogst, Flanagan and Fuchs share an author/designer-centric perspective, and the target audience seems to be game designers and game producers. It could be said that this is in line with Fuchs’ idea of critical media as it would potentially use existing and commercial games production. However, the call for a “shifting of authority and power relations more toward a nonhierarchical, participatory exchange” (Flanagan, 2009:256) could also be read differently, namely through the lens of co-creation.

The Opportunities Presented by Co-Creative Game Design

A salient way in which critical game design can be analyzed as critical media is by investigating the extent to which players can change the game, and if players can have an impact on the message and meaning of the game for others. Flanagan takes this into account in her explicit design ideal which stresses the freedom of the player to appropriate the system of the game in her meaning-making is extended towards design methodology. This perspective is also reflected in Sicart’s (2009) critique of WoW as an unethical game. His point is that the game does not allow players to intervene in the structure, and therefore forces them to accept the ethics coded into the game without being allowed to reflect on or change them:

By design, and by the developers' policy, World of Warcraft is a game in which one party can cause the user ethical harm, whereas the users are not capable of imbedding their ethics in the game. Assuming that the player is a homo poieticus, voluntarily engaged in this game, then she has to be allowed to intervene in the structure of the game.”(187)

Herein lies an opportunity for co-creative game design to make critical impact: in the case of WoW it would be possible to turn WoW into a more ethical game if player-created content would allow players (or at least make it easier) to influence the embedded ethics of the game. This exactly is the aim of the add-on for democratic decision-making that was presented in study V, made possible in the intersection of the aims of critical media and critical and ethical design with the potential of co-creative game design.

In this thesis, the notion of co-creation combines aspects of alternative and critical media. On the one hand, co-creation can be seen as a means for co-opting existing media to present alternative content, and on the other as a way of accomplishing this through a change in the way games are produced (a co-creative process). This does not mean that a co-created game *de facto* becomes an alternative medium, but that some parts of it are created in a way that would satisfy the criteria of alternative media.

Participation

While one of the core arguments of this dissertation centers on a new definition for co-creative design, it is also useful to step out of the need to define the medium as alternative or critical or co-creative, and to instead discuss the intensity of audience or player involvement in the production. This section focuses on this perspective, while at the same time keeping an eye on the implications of this involvement on the final product and its political orientation. Participation as a framework allows for integrating the various ways in which players are influencing games into a 'ladder' perspective, determining its level on something close to a scale between maximal and minimal participation (Carpentier, 2016; Arnstein 1969:217)., There are parallels between the different levels on the ladder and the various intensities and kinds of critical media, alternative media and critical play. It should be emphasized that the aim is not to merge theories about participation and alternative media, but rather to utilize participation in order to avoid dichotomies and to allow for a more fluid comparison between different forms of participatory practices, and to ultimately propose a model of co-creative game design that takes into account participatory creation in the fashion of alternative media, as well as the outcome of participation in the production process.

The outcome of participation is of particular importance when using the notion of alternative media to characterize the co-creative processes. Alternative media (Atton, 2002) does not need such a corrective in the same way as alternatively co-created media because it is assumed that an alternative production and distribution will lead to a different message. In the case of co-creation of alternative media, the influence of the participatory and alternative aspects of the production need to be assessed by investigating the impact of these practices on the outcome of the production process. Without a reflection on the actual impact of the co-creative practices on the outcome any level of audience participation would have to be seen as co-creation, even if that participation does not result in change. This problem can be solved using Arnstein's (1969:217) "Ladder of Participation," within which a low level of participating that has little effect on the final product (but mostly exists to manipulate the participants) is understood as nonparticipation. In the world of digital games, this would be asking for player feedback and many kinds of community management classified as "consultation" and a kind of "tokenism" on the ladder of participation (Arnstein, 1969:217). Even the consultation of players would still be seen as tokenism because the impact of the players/participants is at the mercy of others. Only once the participants get an actual influence on the product is the production process truly participatory. This does not mean that the participants have to achieve full control, but rather that there should be a participatory relation on the level of partnership if the process is to be understood as *co-creation*.

Co-Creation, Participation and Open Innovation

The lens of participation is useful for motivating why the thesis departs from the perspective on co-creation as articulated by Banks (2014) as a form of open innovation. Banks' perspective deserves a more detailed discussion here for a number of reasons. Banks (2014) develops in his book a "an explanatory model of co-creation that seeks to integrate both market exchange explanations and cultural production explanations at once" (p. 149) which is partly at odds with the model proposed in this dissertation. He also rejects the utility of a political economy approach to co-creation of games (in Jenkins, 2014). Banks seems to reject a political economy perspective and a framing of unpaid player contribution as exploitation for a number of reasons. While Banks states that exploitation is the extraction of surplus value, he seems to require some added qualifier of unethicity to call something "exploitation." But, from the perspective of participation, exploitation takes place on a continuum: there is room for unpaid player participation that still is not exploitative when it treats players as equals and grants rights as a consequence of participation in production.

That said, for Banks the economic perspective is only one way to understand player co-creation. The other perspective focuses on the motivation of player creators to participate. This perspective is less relevant when investigating games as alternative media, but has relevance if the perspective of game production companies is prioritized. Since that is what informs Banks' model, it becomes an important reason for his rejection of a political economy perspective. Banks argues that player creators do not see themselves as being exploited, but, on the contrary, they appreciate the possibility to contribute to the games they enjoy. This understanding of player creation as an activity that game company offers for the entertainment of players is similar to Sotamaa's (2010) concept of player creation and modding as a way of playing the game. From this, Banks draws the conclusion that the relationship between the game company and player creators cannot (or must not) be understood as exploitative because players themselves resist this interpretation. This argument is problematic as it is based on a dichotomous understanding of what constitutes exploitation, rather than a gradual one that can be informed by a participation perspective. A participation perspective helps to place the concerns articulated by player creators (see study I; III): concerns about more influence on the design of the games they are participating in; worries that their input will not lead to changes; or, about the overwhelming power of the game production company. While these do not explicitly prove that player creators feel exploited, they do give examples for where they do desire a higher level of influence in exchange for their participation.

As an alternative to a discussion of power in the production process and exploitation, Banks proposes the notion of "mutual benefit" (Banks, 2013) that is the outcome of player co-creation. Mutual benefit is explicitly placed as a preferable perspective to exploitation (Banks, 2013:8). This is problematic because it implicitly states that a relationship cannot be exploitative if it is mutually beneficial. This dichotomy is not further explained or supported (again, Banks ultimately settles for a hybrid model of labour exploitation and motivation). The relationship of an exploited worker to her employer (or even a slave to her master) will always hold some benefit for the worker, but this does not preclude exploitation. Instead of pointing out that co-creators are reaping some benefit, an analysis of the power positions, and the influence on the co-creative process on both sides, is needed. Banks (2013) understands the co-creation of a game as a type of open innovation process. The aims of open innovation as formulated by its proponents, a new kind of shared cultural production with shared resources instead of an exploitation of users without the sharing of company resources, can also be mapped to the Ladder of Participation (Arnstein, 1969:217) and would require at least a level of partnership. But the mutual benefits that Banks mentions could just as well be just consultation, a form of tokenism, where the benefit for the players is limited to being allowed to give feedback and hoping for their

perspective to be taken into account without any power to enforce their ideas.

A final problem with Banks' (2014) understanding of co-creation is that he seems to consider any involvement of a player with the game as a form of co-creation. It is important to point out again that Banks (2014) book makes an important contribution and is useful for any discussion of co-creation of games. However, the rejection of a political economy perspective (or the notion of exploitation in the context of player-created content) is premature. This leaves room for a critical examination of co-creative game design as an added theoretical contribution in this area. In conclusion it can be said that player co-creation can inject critical elements into the design of games by using access points like and API that open up critical play and design methodologies to player input. These elements can be seen as critical if they aim towards social change by challenging what has been taken for granted by individual players that use the player-created elements.

Cultural Studies and Game Studies

Deviant play (Mortensen, 2008) is a concept related to critical play (Flanagan, 2009) and ethical freedom of the player (Sicart, 2009). While games with their obvious interactivity and activity in play have led to a specific and solid discussion of the role of the player in shaping the meaning of a game as evidenced by the works of the authors above, the notion of audiences of media being active in the construction of the meaning of their media is not new. A central concept here is "the death of the author" (Barthes, 1984). Here it is useful to discuss Barthes (1984) as a way of situating the perspective of this dissertation with its focus on structural changes in the game as co-creation in the discussion around authorship and meaning-making as it extends beyond games.

Barthes (1984) argues that the perspective of the author is not or should not be central for the interpretation of a text, but that more weight should lie with the perspective of the reader. In Barthes' (1984) words, "the birth of the reader must be at the cost of the death of the Author" (Barthes, 1984:148). In the case of games this means that a game needs to be understood through the way players are using it, and research coming at virtual worlds from a cultural studies approach have been doing important work by examining the way games and virtual worlds are sites of struggle (MacCallum-Stewart, 2011) around hetero-normativity (Pulos, 2013), the portrayal of race in the game (Poor, 2012) and in game culture (Nakamura 2009), the portrayal and performance of gender (Taylor, 2003; Nakamura & Wirman, 2005), in the definition and deconstruction of video game culture and audience (Shaw, 2010; 2013), and, finally, the blurring of lines between game rules and social

conventions in defining play (Thorhauge, 2013). These sites of struggle about the definition of what a game and gaming are often built on Barthes (1984), as they foreground the experience of the players. (Ask, 2011a; 2011b; Paul, 2011) However, this understanding of the death of the author has since been criticized and expanded on, and Carpentier (2013) points out that while the author is no longer relied upon to provide the sole valid interpretation of a text, she still holds cultural capital and an institutionalized position of privilege that gives weight to her interpretation. Carpentier (2013) states that Barthes' (1984) author has died a second death and positions the rise of user-created content, of the produser (Bruns, 2008), and of digital participation in conjunction with an emphasis on user creativity as the new threat against the author in the form of the influence of professional creators. This discussion then warrants the same critical evaluation of the real degree of participation awarded to users/players and the maintained power position of the allegedly dead author as Barthes (1984) discussion around the interpretation of texts.

While the focus on structural kinds of co-creative game design is not meant to exclude other kinds of co-creation, and while the border between them can be blurry (e.g. guild management websites leading to in-game guild calendars), there is a point to be made for focusing on structural changes in the actual game. The point of conflict where it is possible to investigate the power relationship between player creators and Blizzard – necessary for investigating the level of participation, ownership, control, and conflict, and this a political economy perspective on the production of co-created games – is located in struggle about structural changes of the game. Cultural studies have shown that players can make their own meaning of the games they play, which can of course be alternative and critical. However, the author does maintain influence here. This dissertation shows by establishing co-creative game design that the author is not the sole creator of the game design, extending the concept of the second death of the author into digital game design.

Co-Creating Game Design vs. Deviant Play

One criticism brought forward against the proposed model of co-creative game design is that it does not include subversive and alternative play practices such as role-playing in MMOs. This criticism can be extended to the entire project of the dissertation, and is thus deserving of attention. The salient point is that practices such as role-play are closely related to co-creative game design practices. Role-playing practices have been shown to change the way the game is played for the role-playing community, and are in WoW deviant as they motivate the players to stray from a vulgar focus on acquisition of power that is built into the game as the default mode to play (Mortenson,

sen, 2008). It is a play practice that challenges the perspective of the game designers on what WoW is supposed to be. It even fits the paradigm of critical media and criticality, by focusing on identity and human relations instead of advancement of power as a corporate denizen of WoW (Rettberg, 2008). There is a valid point here: existing deviant play practices are as of now going further towards critical and alternative ways of playing WoW than the interface modifications are. Yet, they are excluded from the proposed mode of co-creative game design as they are not changing the game for other players - outside of the immediate community of the participating role-players.

This point is important because it relates back to the normative stance of this dissertation in relation to working towards social change: something that is central to the proposed understanding of co-creative game design. Co-creative game design according to the proposed model needs to be able to change the game for *other* players, not only the ones who are already part of the deviant play practice. Role-play as a deviant and critical practice of play only changes the game for those players who choose to participate, and so these practices fall short of re-making the game into an alternative medium. Deviant play practices are pointing inwards, thus they change the game for the group who is participating but are not aiming to change it for those outside of their group. In an analogy to Boal's (1992) theater of the oppressed, deviant practices like role-play are not attempting to turn the entire game of WoW into a theater.

It needs to be stressed that this does not mean that deviant play practices are not important for game design or social change, or that nothing related to role-play is co-creative game design. There may very well be elements of role-playing that are persistent enough or directed towards the outside of a play group in a way that makes it relevant to consider it as co-creative game design. An example here are role-play add-ons which facilitate role-play by allowing players to mark themselves as in/out of character and to present a background story for their character (MacCallum-Stewart and Parsler, 2008:241). Another example for role-playing add-ons here is the add-on Eloquence which turns out-of-character chat text of other characters into in-character text helping the player to maintain immersion (MacCallum-Stewart and Parsler, 2008:243). This add-on expands the social rules and conventions of a particular group or community to other players that that are (potentially) outside of it. This is a useful example for co-creative game design as it does not change anything in the game except that it allows exporting the social conventions of a particular group of players. It is this exportation, the focus towards players not part of the group, which marks it out as co-creative game design here, and not the fact that it is done with an add-on.

In summary, it can be said that the proposed model of co-creative game design focuses on changes to the game and play of others, due to the normative goal of social change that requires co-creative game design to be aimed at other players outside of the immediate group of the co-creator. This requirement tends to privilege structural changes in the game over social changes and practices, as the latter are more difficult to expand to the mass audience. However, it does not limit it to structural changes in the game exclusively.

Co-Creative Game Design and the Dichotomy of Player/Designer

Taylor (2007: 122-123) highlights that emergent player behavior and player creativity are often absent from core game studies definitional questions (e.g. What is a game? What is play?). Thus, the notion of co-creative game design also makes a contribution to a theoretical understanding of the relationship between players and designers. Writers such as Bogost (2007) and Pias (2011), for example, see the designer as being in full control of the narrative and meaning of a game through the design of the both rules of the game and its procedural rhetorics. Alternatives to this designer-centric perspective can be ordered according to how much power over the message of the game is assigned to the designer versus the player. Flanagan's (2009) notion of critical play affords players the possibility of disregarding the message of the designer, and to turn the game into something different in their play. In this vein, Sicart (2009) and Fassone (2014) offer the most radical crystallization of this perspective, as they stress the power of the players to not only influence what kind of experience they get from the game (through interaction), but also to engage in subversive play. Sicart (2009) goes as far as to point out that it is unethical to design a game that does not allow players to form their own judgments about how reality works, or should work. Taylor's (2007) own perspective, similar to Pearce's (2006; 2009; 2011), stresses how players in MMOs through play create the game and its culture which, while not extending to co-creative game design, give players a stake at defining what MMOs and online games are. The practices of deviant play described by MacCallum-Stewart and Parsler (2008) and Mortensen (2008) are examples of player practices that are central to how players change the way they play while remaining on the side of critical play as understood by Flanagan (2009:253), and changing what the game means thus allowing for critical reflection and the construction of an alternative identity and world view (Bhabha, 1994).

Flanagan's (2009) perspective on critical design and Harvey's (2014) queer game design could be seen as in between these extremes. They aim at shifting the possibility to design games to players and people who are not typically game designers. However, here the design possibility for critical design and queer design are positioned as activities *outside* of an existing game, or as design aims for game designers who should allow players more influence on the design of the games they are playing by opening avenues for player influence. The perspective of this dissertation then lies in between Taylor (2008) and Pearce (2006; 2009) on the one hand, and Flanagan (2009) and Harvey (2014) on the other. Co-creative game design as presented here is ground-up from players: it happens in a distinct creative process that is not play but does not require designers to open up venues. Instead, players find ways of co-creating games by themselves. Activities that Taylor (2008) and Pearce (2006; 2009) see as the creation of game culture are shown to have a larger (or additional) impact as well directly and indirectly changing the design of a game. This does not mean that Harvey's (2014) queer game design is obsolete, or that Flanagan's (2009) critical design options are no longer needed. What is being proposed here is that critical (or potentially critical) game design is happening all the time as players co-create their games and take over the task of defining what the game is on a level different to game culture, namely game design. This then suggests an added layer in the relationship between players and designers that further dissolves any dichotomy, allowing for a deeper understanding of the relationship of player practices to the design of ongoing games for large groups.

Conclusion

Answering research question 1.3 it can be said that a mainstream game can be co-created as alternative media if player co-creation reaches a high level of participation and changes the way the game is produced with a focus on other players and an actual impact on the outcome of the production. This combines the perspectives of alternative and critical media and the here established new instance in the relationship between player and designer which is co-creative game design.

7. Conclusion

Co-Creative Game Design

While research questions 1.2 and 1.3 are answered in this umbrella document, research question 1.1 has been answered by Studies I, II, III, and VI. Study I uses the example of WoW interface modifications to show the mechanism of co-creative game design where players modify the design of a game, their creation spreads in a market of modifications, and then becomes a new way of playing the game. Study II used the example of complementary smartphone applications to WoW to show that co-creative game design extends further than the institutional boundaries of the production company (or the limits of the game software) as long as it modifies the way the game is being played. Based on these mechanisms of co-creative game design, study III presented a definition for co-creative game design as alternative media. Study VI, however, polishes this definition and expands the discussion of the relevance of co-creative game design while at the same time defending the definition against potential criticism. The result of these studies is as follows:

Players can and do influence and change the design of the game considerably through numerous kinds of player production. These changes have to be considered to at least potentially modify the design of games even against the will and vision of the producers of the game. Players can co-create the design of a game when certain conditions are met. They can do that through 1. Player creation of a text or communication infrastructure that modifies the properties of the game and from which play emerges 2. for a considerable group of players who share a particular practice of play 3. not only by playing the game but by changing how others play it in a distinct creative activity 4. with the potential to subvert or contest the original design of the game. This understanding of player co-creation of game design is narrower than co-creation through play which helps it maintain political power while still including a vast number of cases of player co-creation. This model of co-creative game design can be useful for future discussions of ownership and cultural production as well as exploitation. (Prax, 2015:15)

Based on this definition, and specifically the fourth criterion that already aims at the power relationship between player co-creators and game designers it is necessary to enter the discussion of research question 1.2 about the

industrial production of culture and the limits it poses on participation in production. The model for co-creative game design proposed in this dissertation offers a new way of understanding the relationship between designers and players, and adds an additional layer to already existing views on how players and designers can co-create the game and its culture. It shows that critical (or potentially critical) game design is happening all the time while players co-create their games and take over the task of defining what the game both is and can be. This then shows an added layer in the relationship of players and designers that further dissolves any dichotomy, allowing for a deeper understanding of the relationship of player practices to the design of ongoing games for large groups of players.

Industrial Production of Culture

The industrial production of games as cultural commodities does limit the potential of co-creative game design for subversion by reducing the level of participation in the creation process, and by keeping player creators relatively disempowered. Player creators do have influence on the design of the game while at the same time having very little power to enforce their interests and design visions. The influence of player creators comes from consumer power of millions of players who use add-ons and want to them to continue existing. This creates a mutually dependent relationship and even partnership, including real consideration of the issues and perspectives of co-creators by a limited part of the Blizzard organization. The control of Blizzard (or potentially any game company) over the technology used to limit co-creative game design is imperfect. Regulating the API is a clunky process with undesired fallout and problems for the players. Interface modifications have prompted responses in the design by Blizzard and are now necessary parts of the game. This means that the game design of WoW is co-created while the process is still not fully participatory because player creators are disempowered in the case of a conflict, staying on the level of Tokenism on the Ladder of Participation by Arnstein (1969:217). The business model of a game can introduce problems in the game design as shown in study IV. In the context of co-creative game design, the exploitation of player creators' unpaid labour limits the possibilities of large sections of the population to contribute to the co-creation of the game. This means that only players who can afford to work for free because they have disposable income and time can become co-creators.

Co-Creation as Alternative Media

This situation where player creators have influence over the design of the game but little power to enforce their interests is problematic from the perspective of alternative or critical media. Here alternative, local, production is seen as the reason for why a medium can have an alternative message. As mentioned, the influence of player creators is (as of now) not necessarily pushing WoW in the direction of a critical medium. However, this dissertation does offer examples of where working within the institution to change the message is happening, and study V provides an example of co-creative game design that does exactly do this: changing the message of the game by modifying a design element, thereby turning a part of WoW into a critical medium. There is the possibility of co-creating digital games as alternative and critical media, but this a possibility limited by the commercial interests of the producers of these games.

To conclude, this dissertation, and to answer research question 1, it can be said that co-creative game design, with a potential for turning games into alternative media, is already happening. While the commercial interests of production companies limit the level of participation, the stronger definition of co-creative design provided in this dissertation might lead to scholars' and policy makers' attention to the importance of player creators, and inspire collective action on the side of the player community and expand the existing (but still limited) possibilities for co-creation of mainstream games as alternative media.

Glossary

AAA Game/Triple A Game: An AAA/triple A game is a game produced by a company that is part of the established for-profit digital games industry. These games typically have larger funding, developer groups, and marketing than independent game or games from small and start-up companies.

Add-on: Here means a modification of or addition to the code of the game. Similar to mod.

Drop/Drops/dropping: When monsters die in games like Diablo 3 they often leave behind treasures like gold, armor, and weapons. These items are called drops and the monsters are dropping them.

Loot/looting: The items dropped (see above) my monsters can be looted by players. They are then often referred to as loot.

Farming/Gold Farming: Performance of a repetitive task in a game not for enjoyment but to earn a certain resource, often gold, to be traded or sold.

Freemium Model: A model where the basic version of a service or product is free but an upgrade to a premium version with improved or full functionality has to be paid for.

Micro-Transactions (also called Micropayments): Financial transaction involving a small amount of money. Often paired with virtual item sales (see below).

MMO: Massively Multi-Player Online game. A game in which social interaction with other players through the internet is not only supported but defines the game play.

MMORPG: Massively Multi-Player Online Role-Playing Game. A role-playing game with a focus on social interaction with other players.

Mod: Short for “modification”. Here means a modification of or addition to the code of the game. Similar to add-on.

Modder: A person who makes a mod or an add-on.

Mudflation: An inflation of the value of money in virtual worlds and online spaces named after MUDs, the types of games where it was first encountered.

Overpowered/OP: Items, characters, or abilities in games can be called overpowered when they possess too much power in comparison to other, comparable objects.

Raid: A large group of between 10 and 40 people in World of Warcraft. Also used to refer to raid instances which are difficult levels for groups of players and part of the end game of WoW.

RMT: The trade with virtual items for real money (aka USD or Euros).

Trading Forum: A forum on the official Diablo 3 website that is meant to be used for trading items.

Virtual Item Sales (also Virtual Goods Sales): Sales of virtual items, for example in games, for real money. An example here can be gear and weapon for characters in games

Ludography

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ⁱ The terms “produser” and “prosumer” imply a difference in how the role of the user/consumer is seen (for one side of this discussion see Bruns, (2012) who argues that produsers are more empowered than prosumers and more seen as people/citizens than just as consumers). However, in the context of this dissertation both categories bring to the table the central concept of the immediate connection of use/consumption and production that signifies participation in social media and play in MMO environments.

ⁱⁱ A damage meter is an add-on that parses the combat log of the game and presents the data in sophisticated tables so that human beings can make sense of it. It enables players as well as group leaders to understand and analyze a certain character’s performance.

ⁱⁱⁱ MUD stands for Multi-User-Dungeon. Muds are text-based virtual environments that themselves developed from text-based single-player adventure games.

^{iv} For a more detailed analysis of the relationship between the different MUDs see Keegan’s (1997) *A classification of MUDs*. <http://mk.ucant.org/info/mudessay.pdf> (accessed 2016/03/22).

^v As an extension to his classification of the different development directions of MUDs quoted above Bartle (2010) also states that at the point of his writing graphic virtual worlds had come to a similar point as the MUDs in the past and are now separating along different design paradigms. Second Life (Linden Lab, 2003) represents the de-gaming of TinyMUD. Mine-

craft (Mojang, 2011) had not become the cultural phenomenon it is today at the point of writing and could now be seen as the following the focus of creating game worlds. This leaves WoW as the game that takes up the role of DikuMUD focusing on game play and reaching a massive audience spawning numerous iterations and influencing game design for the foreseeable future.

^{vi} The classic game model (Juil, 2003) is a definition for what a game is. Its strength lies in that instead of ending analysis when pointing at that something is not a game it opens up ways to discuss and understand the difference of whatever one is analyzing to a classic understanding of what a game is. This is the definition: *A game is a rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable.*(Juil, 2003) WoW would not be a game because it does not have a quantifiable outcome. WoW is never over. It has no end-state. This makes it a borderline case for a game. Parts of WoW, like PvP arenas or raids, do have quantifiable outcomes. WoW could thus be seen as a platform or virtual worlds that features a number of games that are connected to each other through the shared world and shared resource systems and social networks. However, it is not the point of this dissertation to discuss game definitions.

^{vii} Only a handful of player creators got jobs in the industry based on their work. Icefrog and Steve “Guinsoo” Feak, developers of the Warcraft 3(Blizzard, 2002) map Defense of the Ancients (or “DotA”), are now working at Valve(1996) on Dota 2(Valve, 2013) and at Riot Games(2006) on League of Legends(2009). The developers of Counter Strike(1999), a mod for Valve’s Half Life(1998) Jesse Cliffe and Minh Le have also been employed by Valve.

^{viii} For taxonomy of player-created content see Scacchi (2010). The add-ons for WoW are user interface customizations in his taxonomy.

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