
RESEARCH ARTICLE

Online Media Business Models: Lessons from the Video Game Sector

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Today's media industry is characterized by disruptive changes and business models have been acknowledged as a driving force for success. Current business model research manages only to grasp static descriptions while in reality media managers are struggling with the dynamics of the industry. This article aims to close this gap by investigating a new paradigm of online media business models. Based on three video game case studies of the massively multiplayer online role-playing game genre, this article explores a novel theoretical approach to explain the changes that can be made within business models. The article highlights the importance of changing processes within online media business models and emphasises that the video game sector is at the forefront of business innovation. Finally, it demonstrates that online media business model change is in a trade-off paradigm between capturing or offering potentially higher value per player vs. accessing a potentially larger player-base.

Key words: Media industry; business model; process; disruption; video game sector

Introduction

Today's media industry is characterized by disruptive transformations shaped by digitization. Digitization is not only generating new business opportunities but threatens traditional commercialization strategies and is proving highly unpredictable with regards to future market development. The significance of online business models in this context has been acknowledged and for the last decade scientific research on this issue has proliferated (Kakihara, 2010). Yet, the media industry is struggling to find sustainable online business models. Therefore, the research question for this article has been formulated as: how can media companies successfully adapt their online business models with regards to disruption? In order to answer this question, this article approaches the issue of online media business models from two angles.

Firstly, this article explores and explains that in order to find novel business model strategies for traditionally analogue media outlets, the video game sector can serve as an outstanding example. While the video game sector is part of the media industry it is unique in being digitally 'native' and therefore at the forefront of novel developments. This article claims

that this is also the case in terms of business model innovation. There exist a number of publications that give valuable information about the video game sector as part of the cultural industries (Hesmondhalgh, 2013; Winseck and Jin, 2011) and dedicated literature that covers the business and other aspects of the video game sector (cf. Jöckel, Will, and Schwarzer, 2008; Kerr, 2006; Nieborg, 2015; Zackariasson and Wilson, 2012). Still, it seems that the video game sector does not get as much attention as other media sectors in research, especially in the context of online business models. This article attempts to address this gap.

Secondly, existing literature on online business models mostly focuses on considering static situations and is rather conceptual, neglecting the fact that the integration of innovative and sustainable media business models is dependent on continuous change. Numerous authors have identified that structures of economic systems are subject to permanent change, which is seen as the only constant of a capitalist society system (Schumpeter, 1934). These dynamic processes can lead to new online business models for the media industry and represent the focus of this article. This article contributes to existing literature by investigating a novel theoretical approach on how media companies that are facing changes in their business environment can strategically transform their online business model.

The rationale for this research is based on three in-depth case studies of video game business models of three leading massively multiplayer online role-playing games (MMORPGs). The genre of MMORPGs is a sub-genre of massively multiplayer online games (MMOG). According to the Oxford English Dictionary (OED, 2016) a MMOG is 'an online game which can be played by a very large number of people simultaneously'. Typically, this kind of game is played in an online multiplayer-only persistent world. In the role-playing genre, the player is asked to choose a fictional character, to play a role, taking decisions and performing actions (De Prato, Feijóo, Nepelski, Bogdanowicz, and Simon, 2010). 'World of Warcraft' is the most popular example.

This article is divided into five sections. Section one delineates the theoretical background of the study. The concept of business modelling strategies and the importance of the video game sector are highlighted. Section two outlines the methods used in the case study research. Section three displays the three different case studies. The evidence from the case studies is then drawn together in section four and a new paradigm for online media business models is proposed. The article ends with key conclusions outlining implications for media managers.

1 Theoretical background

1.1 Business models as tools to manage disruption in media

The origins of the term 'business model' are found in the writings of Peter Drucker (1954). Drucker explained the 'business model' in terms of the customer, in terms of what is valued and in terms of how to earn money. Although present for over half a century, the concept has only gained prominence in the last decades, especially during the dot-com revolution of the 2000s (El Sawy and Pereira, 2013). As Ballon (2009) explains, as digitization progressed the concept gradually shifted from mainly dealing with the 'logic of creating and capturing value' (Keen and Qureshi, 2006; Magretta, 2002) towards 'the development of an unambiguous ontology that can serve as the basis for business process modelling and business case simulations' (Haaker, Faber, and Bouwman, 2006; Osterwalder and Pigneur, 2010). As a result, business models developed towards encompassing a complex set of design choices concerning a specific value network, functional architecture, financial models, and eventual value propositions made to the user (Ballon, 2009). Since a lot of choices are involved, the notion of control became as important as the concept of value in analysing business models (Ballon, 2009; Linder and Cantrell, 2000). The specific analytical framework used in this article, is based on exactly such a conceptualisation (see section 2.2 for more information).

It becomes clear from the above that the contemporary interpretation of the business model concept allows for – and even requires – a multidisciplinary assessment of both the strategic position and the design choices available to a firm. Such analysis may include technical, techno-economic, political economy, strategic management, marketing and other approaches. In practice, however, business models are rarely truly holistic in this sense, and even when they are, they deliberately or inadvertently overlook other internal and external aspects such as political or psychological factors. While the business model approach has these limitations, the value of this approach is still clear. It provides researchers and practitioners such as media managers with the possibility to structurally apprehend their business generation prospects.

However, the traditional business modelling approach still overlooks the process through which business models are practically generated, rated and, if needed, discarded. Articulating such a process would help to understand the ways in which businesses and their models evolve towards substantial contributions to sustainable growth (Roome and Louche, 2015). The conventional business model approach offers mostly static conceptual architectures (Teece, 2010) that can be seen as ‘snapshots’ of the configuration of control and of value at a specific time and location. The link between business models and their dynamics is poorly understood (Achtenhagen, Melin, and Naldi, 2013). Some recent attempts in research to discover these links have been made (Achtenhagen, Melin, and Naldi, 2013; Cavalcante, Kesting, and Ulhøi, 2011; Roome and Louche, 2015). Cavalcante, Kesting, and Ulhøi (2011) distinguish four types of business model change: (1) business model creation, (2) business model extension, (3) business model revision, and (4) business model termination.

This article follows Cavalcante et al.’s description of ‘business model revision’, which indicates a process whereby something is removed and replaced or modified within an existing business model. Revision is associated with uncertainties and risks that arise through disruption, innovation and transformation on the market. These uncertainties are highly relevant for the media industry. Therefore, this study focuses on processes related to disruption and uses video game businesses that have undertaken these transformational changes as examples.

1.2 The video game sector as a trailblazer for the media industry

In roughly 40 years, video games have developed into a sector that is now a significant segment of mainstream media production and sales. It is one of the youngest of major media sectors and has developed into the one with the fastest growth. Sales growth has tripled over the last ten years and there are 1.2 billion players world-wide (PricewaterhouseCoopers, 2015). The video game sector, with its market value of over 80 billion USD, has exceeded other media sectors such as the music and the movie sector within the last years in terms of revenue generation (PWC, 2015). The so-called ‘AAA’ titles, which are the ‘big-budget blockbuster video games’, have production costs that reach the same level as ‘blockbuster’ Hollywood movies. For instance, the production of the movie *The Avengers* cost Disney 220 million USD while one of the most expensive video games so far, *Grand Theft Auto V*, cost 265 million USD (Cox, 2014). While these numbers are impressive, comparing different media sectors needs to be handled with care as each has unique structures (Hesmondhalgh, 2013). But undoubtedly, the growing significance of the video game sector is apparent.

Additionally, the video game sector demonstrates repeatedly that it is the trailblazer amongst media industries in the production of ‘exciting innovation’, as Hesmondhalgh (2013) puts it. Many traditional media sectors are trying to explore possibilities that have emerged through digitization. But most media sectors are still in their digital infancy, whereas the video game sector can look back on an imposing track record of innovations as for example

its first digital interactive game *SpaceWar* as early as 1961, the *Game Boy* in 1989 and the first 3D game in 1992. Today, the video game sector is spearheading technological developments in many fields such as virtual reality amongst others (International Center for the History of Electronic Games, 2016). Hesmondhalgh (2013, 358) describes the video game sector as the only sector that 'emerged from digitalisation' as opposed to other sectors, like film, music and newspaper who are 'digitalisation affected'. The video game sector has demonstrated significant abilities to adapt to and profit from technological advancements, and to rapidly innovate technologically but also to innovate in terms of business models (De Prato, Feijóo, and Simon, 2014).

Even though the video game sector is distinguished by its digital roots, there are many similarities to other media sectors. Games, text, pictures and videos are first and foremost mediated content. Hesmondhalgh (2013, 359) stresses that, even though the video game sector has distinct features, the 'software' part of video games is still 'organized like books, music and films'. Kerr (2006) states that the video game sector is similar to more traditional media industries in respect of production, publishing, distribution but also in terms of the development of new formats and distribution channels amongst other aspects. Apart from that, additional characteristics are shared between these sectors. To illustrate these characteristics, one of the rising segments within the video game sector is taken as an example, while it also provides the source for the case studies (see section 2.1): the genre of massively multiplayer online role-playing games (MMORPGs). Revenues of online games played on a PC that require an internet connection – including subscription and free-to-play MMORPGs but also MMOGs and casual social games – have increased significantly over the last few years to add up to more than 20 billion USD in 2012, representing a 19 per cent share of the total video game revenue (PWC, 2015).

The MMORPG genre is characterised by so-called lock-in and network effects. The lock-in effect is such that – due to high switching costs – diverting from the current game scenario is unrewarding (Huhh, 2009). To illustrate: the better a player performs within the game, the better his or her digital character develops, the more likely the player is to be bound to one game alone. Within this genre, player-appreciation scales with the number of active players, the games are characterised by strong network effects. Rohlfs (1974) first demonstrated the existence of economic problems with network sizes. Network effects are manifested directly as player interaction in a game as well as the fact that network size itself can exert an influence on the perceived value of the network itself by the player (Huhh, 2009). This is a crucial feature and it influences not only the player's behaviour but also an MMORPG's business model. Due to such network effects, strong tendencies of concentration are observable in the MMORPG market. In addition, MMORPGs may be characterised as digital goods, with high fixed costs and low marginal costs (see Dogruel and Katzenbach, 2010). The need for pre-financing is integral to MMORPGs since investments can hardly be monetised with low demand – meaning high risks thereby leading to economies of scale and high barriers to entry. This offers advantages specific to the formation of monopolies in the MMORPG market. Similar economic tendencies can also be observed in other media sectors. It is crucial to understand these economic characteristics when investigating business models within the media industry.

1.3 Business models in the eye of disruption: the example of MMORPGs

MMORPGs represent not only a 'new genre, but also new business and pricing models' (Castronova and Michaud, 2009). Therefore, this genre has attracted scholars of the video game sector interested in it from an economic point of view (e.g. Castronova, 2006). However, business model analyses of MMORPGs still remain rather scarce compared to those concerning

other media sectors. This is surprising as the development of the MMORPG market shows that business models formerly considered sustainable had to be adapted even in a market as concentrated as that of MMORPGs. To provide the necessary background to comprehend the case studies, the history of business models in the MMORPG genre and video game sector will be summarized as follows to exemplify the inherent business model changes.

The 1970s marked the beginnings (on computers) of the video game sector. Games on computers were often distributed freely and no business model or financial goals were attached (Kelly, 2004). The first example of commercial use in the massively multiplayer online genre commenced in 1984 with *Island Of Kesmai*, launched on CompuServe. The first major commercial online service in the US, CompuServe, provided the game online to its customers for an hourly rate of 12 USD. At this time, several other competing games had the same hourly-rate revenue model (Koster, 2002). In the late 1990s, the MMORPG genre became well established. The first modern game in the genre, *Meridian 59*, was launched in 1996. This game featured a monthly subscription fee model instead of the traditional per-hour payment. Other so-called 'first generation' games were *Ultima Online* (1997), *EverQuest* (1999) and *Asheron's Call* (1999), together referred to as the original 'big three' of the late 1990s. All of them were also based on monthly or yearly subscription fees. The first successful 'second generation' of MMORPGs were *Dark Age of Camelot*, *Anarchy Online*, and *Ultima Online 2*, all released in 2001. From this point onwards the vast majority of games in this genre featured subscription models (MMOHut, 2013).

The intrinsic characteristics of MMORPGs (see section 1.2) resulted in a small number of successful games ruling the market. The current generation is dominated by the most popular and well-established of games *World of Warcraft* (*WoW*) produced by Blizzard Entertainment (USA) with over 5.5 million paying subscribers as of the end of 2015 (Statista, 2016). Many MMORPGs from major developers have also launched with a monthly-fee model. Now there are currently only a few major subscription-based MMORPGs left, such as *Eve Online* that has around 500,000 subscribers from CCP Games (Iceland) and *Final Fantasy Online* from Square Enix (Japan) with about 350,000 subscribers (JoelW, 2013). However, most games have changed to micro-transactions¹ or freemium² models during the last few years. This trend is intensively discussed in gaming media circles and there is an increasing number of claims stating 'the death of the subscription MMO' can be foreseen (PCGamer, 2015). The real reasons for such a change are obviously very complex, but it can be stated that most games of this genre were facing economic losses and were disrupted and therefore forced to change their business model. Prominent cases include *Lord of the Rings Online*, *Star Trek Online* and *Star Wars: The Old Republic* (Ron, 2013).

Zooming in on the current state of the MMORPG sector, we see that the total player-base is estimated to have reached more than 20 million subscriptions and active accounts (Van Geel, 2013). Even though there are many titles available on the market, there are only a couple of MMORPGs that are known to exceed one million subscribers: *World of Warcraft* (*WoW*) from US-based Blizzard Entertainment, *Aion* and *Lineage II* from South-Korean developer NCSOFT as well as *RuneScape* published and developed by UK-based Jagex.

The evolution of business models in the MMORPG sector demonstrates that strong network and lock-in effects affect business models. While many games aimed for a subscription-based model, the majority of MMORPGs failed with this strategy. However, it can be assumed that other dynamics have come into play when MMORPGs changed their business models when they got disrupted, and that not only the revenue component (subscription or free-to-play) of the business model was changed but other components as well, which will be further investigated here.

2 Method

2.1 Research design, case selection and data collection

In order to address the research question, a detailed analysis of changes of business models was chosen. A case study approach was selected as this is well suited to investigate a phenomenon in a real-life context (Yin, 2003). Case studies offer in-depth data from which new insights and valuable descriptions can be drawn (Eisenhardt and Graebner, 2007). This article is based on a multiple case research design. Through an inductive research process, cases were used to create a new business model paradigm that 'is situated in and developed by recognising patterns of relationships among constructs within and across cases and their underlying logical arguments' (Eisenhardt and Graebner, 2007: 25). The cases were used to bring identified patterns into a theoretical framework. Comparing cases enables a replication logic, which is central to theory building. Reliability of insights follows as several cases can be analysed enabling theoretical ideas to emerge (Langley, Smallman, Tsoukas, and Van de Ven, 2013).

We chose the MMORPG genre as the source for case studies because it is not only one of the fastest-growing genres of the video game sector but it is also already long established (in contrast to newer trends displayed in the even faster-growing mobile and social media gaming sector). Because of that, the MMORPG genre can be described as a mature sub-sector that shows clear economic dynamics. We see these dynamics as representative for the whole media industry, manifested as network and lock-in effects (see section 1.2). At the same time, the genre can still be disrupted through market developments (see section 1.3). Three MMORPGs have been selected as cases and were studied in-depth regarding business model conceptualization and changes – namely *World of Warcraft*, *Aion* and *RuneScape*. The cases were seen as 'unusually revelatory' (Yin, 2003) or 'extreme' as the dynamic aspects of organisations tend to be more visible in extreme cases (Pettigrew, 1990). All selected cases had over one million subscribers at their peak and were the games with the highest (active) player-count during the data gathering period (January to July 2013) (see **Figure 1**), whilst

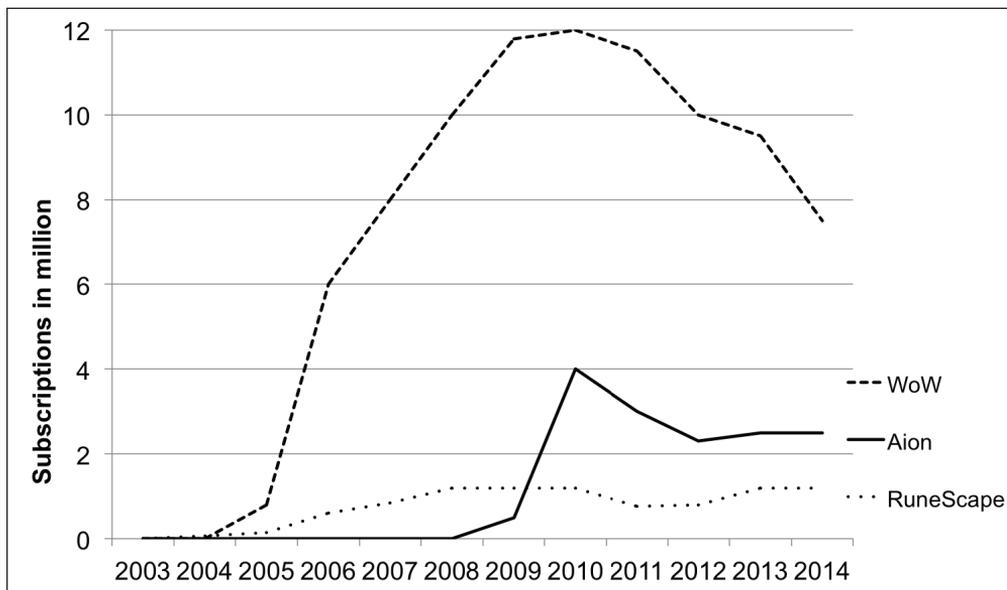


Figure 1: MMORPGs with more than 1 million subscriptions at their peak (Source: Van Geel, 2013).

exhibiting business model transformation as a reaction to pressure or change. Additionally, the cases show strong similarities because they are from the same genre (fantasy role-playing), make use of the same platform (PC) and show a high potential for innovation. At the same time, the cases are sufficiently different, which enables the research to develop a more general paradigm from the analysis; one indication being that the cases also originate in different countries and have very different backstories (see section 3).

Each case involved similar types of data collection that were based on primary and secondary sources. Multiple data collection methods allow for triangulation (Eisenhardt, 1989). Primary data was gathered through playing each game and exploring first-hand functionalities and mechanisms integrated in them. The researcher gathered data in at least five game sessions of around four hours per game, which add up to sixty hours of total game-play time for all games combined. Secondary data included data gathered on the games' websites, official reports of game developers and other publicly available information such as press statements, online blog discussions, news articles. For the purpose of the study it was important to capture changes in business models. Therefore, secondary data was gathered not only from current sources but also from older sources that described the games at a particular time of the past.

2.2 Business Model Design Parameters

In order to analyse the primary and secondary data a case study protocol was developed. Based on the protocol, a case study narrative was derived for each case, describing the changes in the respective business model. A narrative strategy (Langley, 1999) to capture the

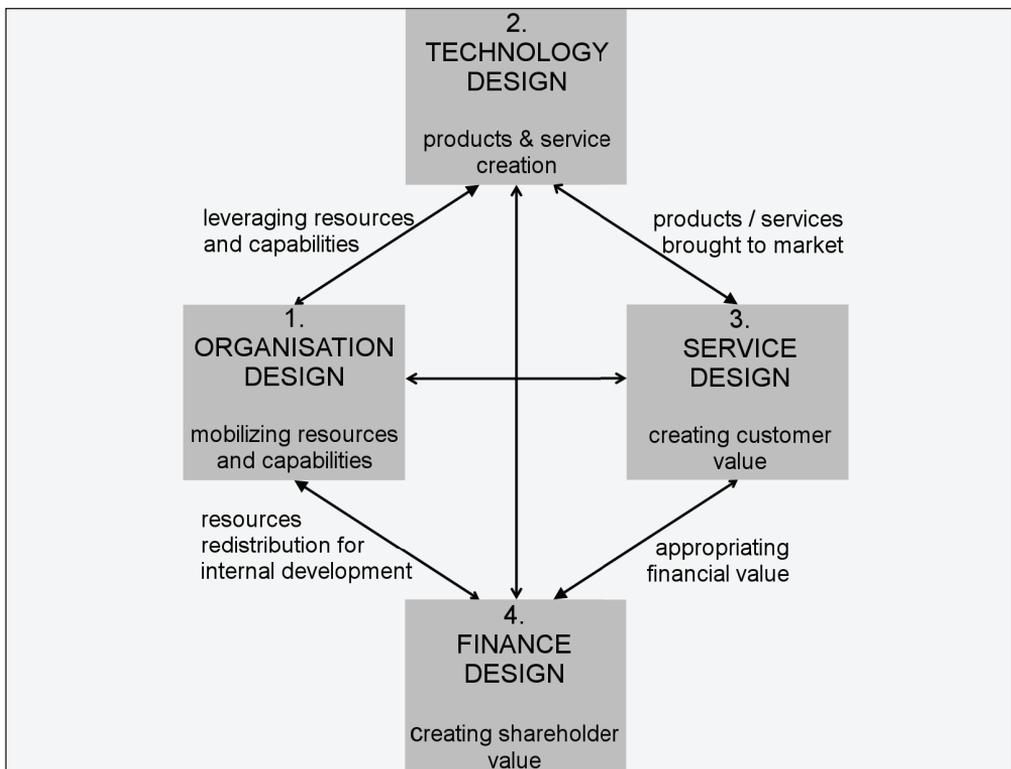


Figure 2: Business modelling cycle (Source: Braet and Ballon, 2006).

main elements of the change process of the business model was applied. Eisenhardt's (1989) within and cross-case analysis methods – to analyse the narratives – were chosen and consecutively used to gain deeper understanding of the processes the investigated media business went through to end up with a revised business model.

The protocol was based on the main elements that construct a business model found in literature. One of the most suitable business modelling approaches identified is the business-modelling matrix that covers numerous different business model approaches. Ballon (2009) identifies four business model design parameters within the matrix that are the foundation of protocol design: (1) organisation design, (2) technology design, (3) service design and (4) finance design (see **Figure 2**). These parameters have been supplemented with theoretical considerations relevant to the video game sector and MMORPG market during the research process to better match the needs of analysing the sector in the protocol:

- (1) The organisation design parameter corresponds to the kinds of actors that participate in the value chain of the game. Adapted to the MMORPG market, a characteristic is the level of integration of the value chain and more specifically the publishing and distribution model. A MMORPG passes through a series of intermediaries from creation to its consumption, adding value to the product: Game developer, publisher and distributor. Wherever feasible, these inputs can be centralised and one single actor can deliver multiple services through vertical integration (De Prato, Feijóo, Nepelski, Bogdanowicz and Simon, 2010).
- (2) The technology design parameter corresponds to the architecture of technical components. This parameter defines the type of platform and the hardware and software capabilities needed to play a game (De Prato et al., 2010). The PC platform is the most common platform for MMORPGs. There is also a distinction between browser-based games and client-based games. The client in this context is the piece of software the consumer installs in order to play a game (Schaller, 2010). So-called browser-based games do not require the consumer to install dedicated software on their device, but only need a functioning browser with a certain plug-in (e.g. Flash Plug-in, Java Plug-in).
- (3) The service design or value proposition parameter corresponds to how the product is positioned (towards the market and vis-à-vis competing offers). Within the MMORPG genre, a distinction can be made between niche and mainstream games. More than 80 per cent of the available games in the MMORPG genre feature a medieval fantasy setting, about 10 per cent are related to science fiction scenarios and just less than 10 per cent can be identified as other genres (Van Geel, 2013).
- (4) The financial model parameter is related to how the financial streams (costs and revenues) are set up. Most interesting for the MMORPG genre are the diversified revenue models (ranging from subscription to free-to-play to in-game virtual item selling) and the prices set.

3 Case studies

3.1 *WoW*

World of Warcraft, the clearly leading MMORPG on the market, is a subscription-based game consisting of the initially released game, the so-called base-game, and several expansion packages. With more than 1 billion USD in sales annually, the game is one of the most lucrative entertainment media products of all times. Of MMORPGs *WoW* still has at the moment the most paying subscribers (5.5 million) (Statista, 2016). US-based Blizzard Entertainment started development in 1999 and first released *WoW* in 2001. It is now available in eleven

different languages (Curtis, 2011). *WoW* had more than twelve million subscribers by 2010 when it reached its record-setting preliminary peak. Since then, the number of subscriptions has been steadily decreasing (Silverman, 2013).

When looking at the organisation design parameter for *WoW*, Blizzard Entertainment is responsible for content creation (Gamasutra, 2009). Otherwise, Battle.net is almost exclusively in charge of content and service distribution as well as all payment modalities. Battle.net is a gaming service provided by Blizzard Entertainment that launched in 1996. *WoW* can also be purchased through a large number of physical and digital retailers. Still, the account and payment via Battle.net is indispensable to play the game. This ensures a direct relationship with the consumer and a strongly integrated value chain (see Battle.net, 2014).³

Within the technology design parameter, *WoW* has high specifications for consumers' capabilities of hardware and software, leading to a high-level gaming experience in terms of quality graphics and game-play features. *WoW* distinguishes between minimum and recommended requirements for full exploitation of the game for processor power, graphics card and necessary memory. *WoW* offers its software for PC and Mac but it is not possible to play *WoW* on other devices (Battle.net, 2014).

In terms of the service design parameter, *WoW* is very strong in its brand presentation. It represents an example of mainstream genre gaming within the MMORPG market as it is a medieval fantasy game and a role model for many other competitors. *WoW* also inspires a massive fan culture. There are magazines, blogs and videos about the *WoW* universe. In 2012, Blizzard started its own series of tournaments. Many licenced books and comics are published, as well as board and card games (see Battle.net, 2014). In 2016, the *WoW* movie *Warcraft* was released, a big budget movie blockbuster (Blizzard Entertainment, 2016).

The basis of *WoW*'s finance design parameter is revenue from the subscriptions (consisting of fees and sales of prepaid subscription cards) above all other revenue streams, such as revenue from value-added services (e.g. character customisations), retail sales of the physical 'boxed' products, online download sales and virtual item sales that have been a new revenue stream since 2011. *WoW* has by far the highest average revenue per user – or accordingly player – (ARPU) of MMORPGs. Monthly subscriptions cost on average 13 EUR. That said, even *WoW* has seen recent reductions in subscription numbers. This led to a change of its finance design parameter. Since June 2011, Blizzard also offers the possibility of playing the game for free until a player-character reaches level 20 (Geyer, 2011). In November 2010, Blizzard also tried for the first time to sell two in-game pets priced at 25 USD (Leigh, 2010).

3.2 Aion

Aion is an Asian free-to-play fantasy MMORPG. The game was developed by NCSOFT, a major South Korean game developer, and has different publishers depending on the region. *Aion* was first released in Korea and China in 2008 and in 2009 entered Western markets, including North America and Europe. At that point, *Aion* had already more than 3.5 million subscribers in Asia (KOKEYTECHNOLOGY.COM, 2010).

The organisation design parameter is defined by NCSOFT, which handles the level of integration in a similar manner to Blizzard. Content and service distribution as well as virtual in-game economy are handled either by NCSOFT itself or by each of NCSOFT's subsidiaries respectively. This was changed in 2012 when numerous license partners in charge of certain areas were introduced. Partners included Gameforge in Europe, Innova in Russia, Shanda in China and Level Up in Brazil (Mmosite.com, 2009). These license partners are in charge of customer accounts and payments and pay royalties to NCSOFT. If there are no regional licence partners, the gaming platform PlayNC under the umbrella of NCSOFT is directly in charge of

the content and service distribution for such territories as well as the account and payment management of *Aion* (Guthrie, 2012).

In terms of technology design, *Aion* is available on PC and Microsoft Windows operating systems and has similar capabilities to *WoW*.

The service design of *Aion* has managed to be attractive to players mostly through divergent aesthetics and the inclusion of flying as a distinctive game-play feature. *Aion* is clearly 'Asian-designed' in its looks, which Chan (2008) calls the 'asianness' of such MMORPGs. Asian-designed games are 'principally marketed within East Asia' while only a few – such as *Lineage* and *Ragnarok Online* – including *Aion* are distributed outside of the region (Chan, 2008: 1). Given the hegemony of the (more European-style and Tolkien-inspired) medieval fantasy settings, *Aion* can be considered to be serving a more 'niche' audience in the genre.

The finance design is based on a free-to-play model with virtual item sales. It is necessary to stress that NCSOFT launched *Aion* based on a monthly subscription model with initial purchase of the product. The change in 2012 to a free-to-play model was due to massive struggles connected to low income and low subscriber numbers. In a video interview (*Aion Truly-free Online*, 2009) Adam Christensen, NCSOFT developer, explained: 'It was a direct response to players' feedback, as it was hard to level and to group [in *Aion*]. With the Truly-Free model *Aion* recognized that players are content and *Aion* needed more players.' There are more than 600 items available, like boots, supplies, pets and mounts or housing items for an average price of 20 EUR per item.

3.3 *RuneScape*

RuneScape is a MMORPG set in a medieval fantasy world. It was released in 2001 by the UK-based Jagex Games Studio ('Jagex'). Jagex has been introducing additional languages since 2007 such as German, French and Spanish. In terms of subscriber numbers, *RuneScape* reached its peak at the end of 2007 with over 1.2 million paying subscribers before the introduction of *RuneScape HD*. Overall, there have been more than 200 million *RuneScape* accounts created since launch and game analysts believe that in 2013 two million players were actively engaged and 20 million players were casual (Gaudio, 2013).

In the organisation design parameter for *RuneScape*, Jagex is responsible for the content creation as well as service distribution through its *RuneScape.com* portal. The consumer can start playing instantly after creating an account at *RuneScape.com*. Via Jagex the consumer can purchase a premium account or in-game currency (*Runescape.com*, 2016). Further, Jagex is mostly responsible for the distribution of the game through their *RuneScape* website. Jagex also licensed *RuneScape* to gaming portals and signed distribution agreements with Zapak, for example, which launched the game in India in 2009 (Mehta, 2009) and with Bigpoint Games in France and Germany in 2010 and WildTangent, which handled the launch in the US in 2006. Bigpoint and WildTangent are currently not offering *RuneScape* on their platforms any more and the distribution has once more been completely integrated into Jagex's value chain (Leigh, 2010).

In respect of its technology design parameter, Jagex's *RuneScape* has significantly high modularity and interoperability, as it is browser-based. It can be played with almost every operating system and browser available. As it is Java-based, the customer needs to download the Java Plug-in (*Runescape.com*, 2016). The hardware and software capabilities that are needed to play *RuneScape* are very low. Any customer with a PC powerful enough to run an internet browser can play the game. Using a browser however leads to limitations in terms of the quality of the graphics.

The service design parameter of Jagex's *RuneScape* is highly involving for the player-base. *RuneScape* features independent mini-games and trading and chatting in a typical MMORPG

setting but these are partly limited to paying players (Runescape.com, 2016). The medieval and fantasy characteristics of *RuneScape* are representative of the mainstream market.

At its release in 2001, *RuneScape* was defined within its finance design parameter by its free-to-play model, financed exclusively through advertisements. In 2002, Jagex changed its model from completely free-to-play to freemium. Mark Gerhard, CEO of Jagex, stated that market developments in 2001 left the game struggling. There were fewer advertisers willing to sign with Jagex (Gaudioso, 2013). Therefore, the freemium version of the game was introduced with the release of *RuneScape 2*. Today, *RuneScape* is based on diversified revenue streams. The foundation is provided by freemium accounts but Jagex added several other revenue streams such as micro-transactions for virtual item sales, advertisement income and merchandise retail. Since 2012 the price for one month of membership (paid by credit card) is around 7 EUR in the Eurozone (Runescape.com, 2016). It was estimated that active players are spending approximately 7.60 USD per month on the game (Gaudioso, 2013).

4 Towards a new media business model paradigm

4.1 The basis of the novel paradigm – the trade-off of the parameters

The three cases have shown with regards to the organisation design parameter that the more roles the game developer takes on, the more integrated the value chain becomes. This means that more revenue can be kept per player whilst more control over the player is maintained. If there is less integration, control and revenue need to be shared with third-party publishers or distributors. Both *WoW* and *RuneScape* have a highly integrated value chain. If the value chain is disintegrated, as is the case for *Aion*, and third-party publishers or distributors are involved, it becomes easier for a game developer to enter and extend markets. For example, local game publishers and distributors have the advantage of knowing the local market, how to introduce new games there and have an already established user-base. Therefore, it can be assumed that a higher value chain integration will lower the potential to reach more players that are not (as easily) accessible without outside support while at the same time more value is generated by each player for the game developer.

The technology design parameter in the case studies has shown that by lowering the entry barriers of the functional architecture – the capabilities needed from the hardware and software – the game becomes accessible for more potential players. The case of *RuneScape* exemplifies the lowest possible requirements for a browser-based game. Low technical capabilities needed from players' computers increase the potential player-base (because not all people interested to play have the required computer at home). Striving for a 'high-end' game-experience on the other hand, results in higher technological capabilities imposed upon the players. This makes it impossible for certain players to access the game as hardware and software needs to be bought. This is the case for *WoW* and *Aion*. Yet, higher quality concerning game experience could be a key factor for fulfilling player needs and encourage use or purchase of the game, especially in a competitive environment. Therefore, high technological capabilities increase the value offered (in terms of quality in graphics and game-play) per player.

In the service design parameter, the strategy of aiming at a niche market inherently translates into the rationale of targeting a smaller potential player-base with distinctive preferences. The more niche-oriented a game is in its genre and game-play the more the game is valued by single players who prefer this type of niche content. These games are rarer to find on the market but players who prefer these niches value the game more. MMORPGs like *WoW* and *RuneScape* who respond to the mainstream demand for medieval fantasy games are targeting the biggest player-base potential that exists among MMORPG players while *Aion* differentiates itself by offering high value for players with certain other preferences such as 'Asianess'.

When looking at the finance design parameter of each case, it is evident that the free-to-play model lowers the barriers to start with a game, as is the case for *Aion*. No initial commitment through payment is necessary. Players that are willing to pay a high monthly fee for a game are rare while potentially more players are willing to play a game without fixed monthly fees or especially for free. The potential player-base is much bigger. Freemium-based models as in *RuneScape* have a similar effect. Nevertheless, these cases demonstrate that the ARPU is smaller compared to revenue from subscription. Therefore, the financial design parameter can either capture high value per player in terms of revenue for the game developer or lower entry barriers that open up the game for a larger potential player-base.

Based on the three case studies we have identified distinctive strategic positioning of MMORPGs' business model parameters. The descriptions show that the parameters can be positioned either to (1) capture or offer potentially higher value per player or (2) access a potentially larger player-base. These two rationales seem to function as a trade-off. This trade-off should be seen as a simplified description of reality.

Whilst there is a trade-off described in how these parameters can be positioned, neither the reasoning nor the actual outcome of the game developer's choices may be consequent on this trade-off. Firstly, the reasons behind choosing the positions of business model parameters can be much more varied, including the characteristics of the target market, the resources of the game developer, overall market development, and many other external and internal considerations that go beyond player numbers and revenue generation. Also, each game developer not only wants to maximize the number of players but also wants to capture the highest possible value from the player and create value for the player (and ultimately derive from that). Both rationales usually influence each other directly because more players should lead to more value and more value should lead to more players (network effect). That reasoning can therefore not be described as being in a state of trade-off. Secondly, the trade-off as described here does not determine the real outcome of the business model. It is not predetermined, that when a game developer positions the business model parameters to reach a potentially larger player-base, the player-base actually increases. The player-base is just 'potentially' larger and the value 'potentially' higher. For instance, the case of *WoW* has shown, that while positioning the parameters of the business model in the trade-off to capture and offer the potentially highest value for their players, the largest player-base was actually achieved after market entry. There were many different reasons for that including the monopoly position of the game. The actual outcome of any given business model is therefore not dependent on the trade-off. However, when the market of a game gets disrupted – through for instance growing or shrinking player numbers, less revenue income from advertisers, new market entrants, or other external or internal factors – and the business model experiences processes of change the trade-off is applicable in the choices the manager can make. Every choice needs to follow one of the rationales of the trade-off. **Table 1** gives an

	Capturing / offering of a potentially higher value per player through:	Accessing a potentially larger player-base through:
Organisation Design	Highly integrated value chain	Highly disintegrated value chain
Technical Design	High technological capabilities	Low technological capabilities
Service Design	Niche target market	Mainstream target market
Financial Design	Subscription model and high charges	Free-to-play and low charges

Table 1: The trade-off of business model parameters in the MMORPG genre.

overview of the trade-off within each parameter of the business model and how businesses can position themselves.

4.2 The new paradigm: strategic change of the position of parameters

Within each case, we have found that disruptive tendencies forced the game developer to change their business model at some point. *WoW* changed its business model in 2011, *Aion* in 2012 and *RuneScape* in 2002 and again starting in 2006. The trade-off described above can be seen as a matrix that guides these changes and leads to a new paradigm. Based on these theoretical insights, it is possible to create a two-dimensional framework (see **Figure 3**). The capability of business model parameters to capture or offer potentially higher value per player are expected to diminish as a potentially larger player-base is accessed and vice versa. Based on the trade-off paradigm described above the cases show a distinctive strategy in adapting their business models along such a two-dimensional framework.

Three out of four business model parameters indicate that *WoW* is positioned to capture or offer the potentially highest value per player. The organisation design shows a strongly integrated value chain and the technology design is determined by high technological capabilities. However, in 2012, as a result of the pressure of declining player numbers, which disrupted the so far successful business model, *WoW* chose to position their financial design parameter afresh, integrating more open features like free trials and virtual-item-sales. Consequently, this parameter moved and was positioned to access a potentially larger player-base. **Figure 4** illustrates how the business model parameters changed.

The example of *Aion* showed that at first, the game configured their business model parameters the same way as *WoW*. After the game experienced massive problems due to low income and low subscriber numbers, parameters were changed. In the organisation design parameter, the business model was positioned to access a potentially larger player-base through de-integration of the value chain by licencing the game to local publishers.

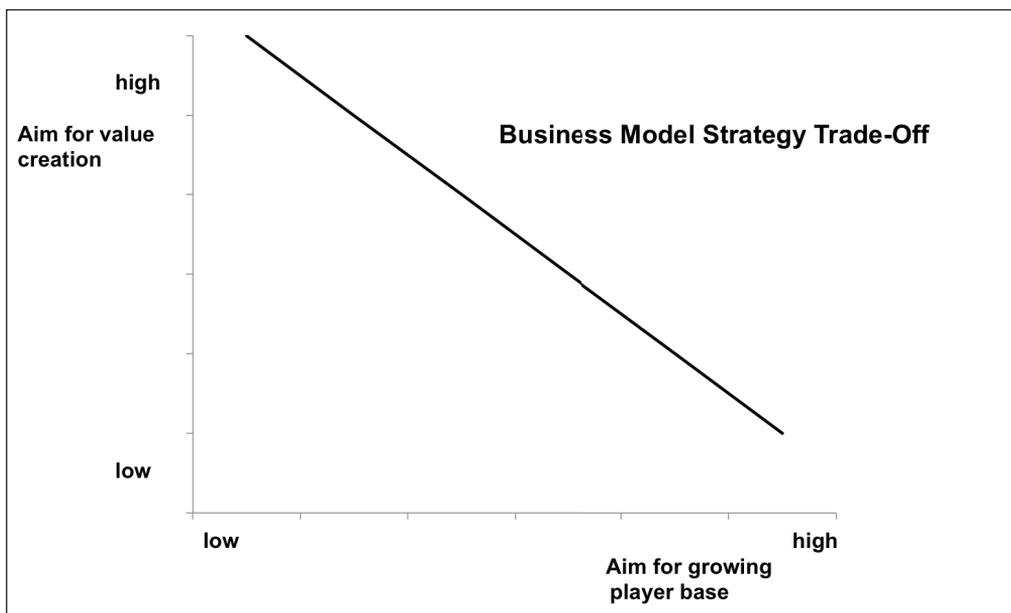


Figure 3: The trade-off in business model revision.

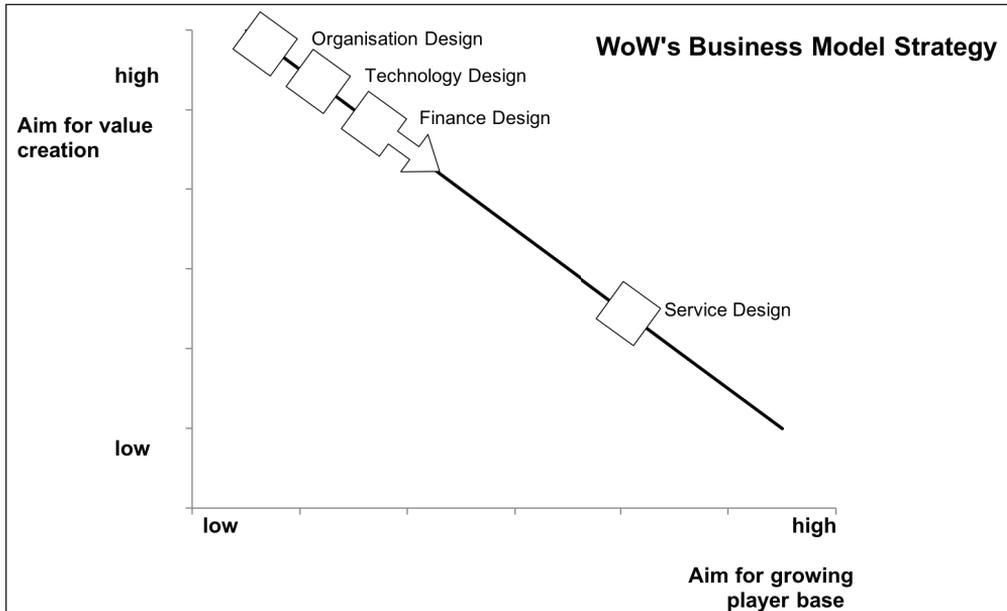


Figure 4: The business model revision of *WoW*.

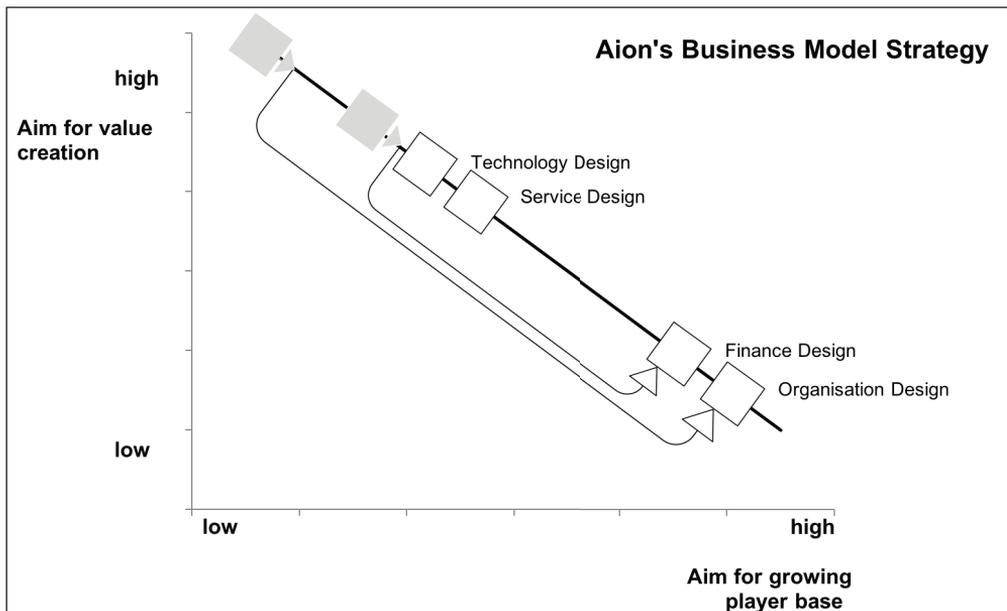


Figure 5: The business model revision of *Aion*.

The financial design parameter now follows the same logic. Today, a completely open game based on virtual-item-sales is not however able to capture potentially higher value from their its players than the former subscription-based model. In **Figure 5**, it is illustrated how *Aion* revised the business model to position the parameters to access a potentially larger player-base, whilst potential value per player is lost.

RuneScape on the other hand has been positioning its business model parameters more and more to capture and to offer a potentially higher value per player. The organisation design parameter has changed over time. Initially, the whole value chain was integrated into Jagex. After initial problems however they licenced the game to local third-party distribution platforms sharing revenue per player. As a reaction to *RuneScape* becoming more and more successful, these licence agreements were cancelled. On the other hand the financial design parameter was adapted after the game struggled as fewer advertisers were willing to sign with Jagex. This revised parameter was positioned to capture potentially more value per player as the financial model was changed from free-to-play to freemium (see **Figure 6**).

5 Conclusions and implications

The media industry is highly impacted by digitization. Especially markets for legacy media outlets, such as broadcasters, newspaper and magazine publishers have been and are being disrupted. Media managers are struggling to create sustainable online business models while traditional revenue streams shrink. The business model as a strategic management tool has already been acknowledged to be an effective instrument to scope the process of capturing value from online activities among scholars and practitioners. But, the digitized media landscape is a highly unpredictable and fast-moving environment. What is functioning today can have adverse effects tomorrow. There is no recipe for the 'one' successful online business model, leading to the question: how can media companies successfully adapt their online business models with regards to disruption? This article claims that the disruptiveness can be managed successfully and contribute to the media business modelling literature through the following conclusions.

This article has highlighted that in order to create a sustainable online business model for the media industry, the approach of business model change or revision should be adapted. Although research in this field is still in its infancy, a key insight from literature is that business models need to be frequently adjusted to new challenges. We found that integration of sustainable media business models is a complex system that interacts with changes in the

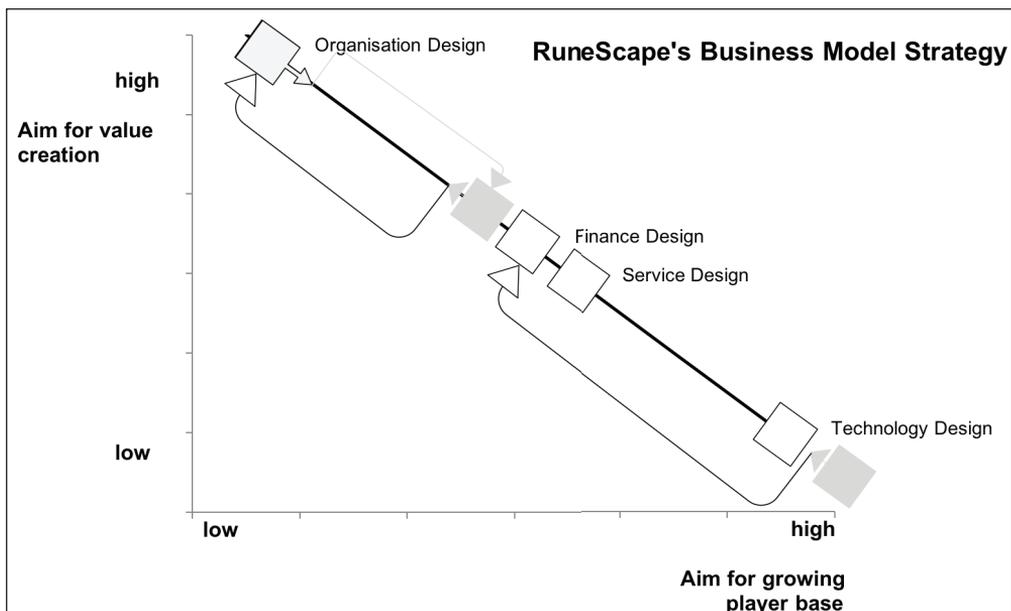


Figure 6: The business model revision of *RuneScape*.

market. Additionally, this article has underlined that the video game sector as the only completely digital native sector within the media industry should be regarded as exemplary. For the video game sector, it is normal to conduct business within an online environment while legacy media still tries to find the 'new normal'. But, also the video game sector sees disruptions. For example, the rise of mobile and social media games has massively transformed it in the last couple of years putting pressure on all kind of video game genres, including the MMORPG market. On the one hand, mobile and social media games are characterised as so-called 'casual games' (video games targeted at a mass audience distinguished by simple rules and lack of commitment required) and attract a broad audience of new customers into the video game market. On the other hand, MMORPGs are characterised as 'hard-core' games that require a lot of commitment. By bringing new gamers into the market and being attractive to a very broad audience, it can be assumed that mobile and social media games have disrupted the whole video game sector including more traditional "hard-core" game genres, like MMORPGs. The same trend can be observed for the whole media industry. However, it should be noted that disruptions in the market are dependent on an inter-play of many external factors including new entrants in the markets, technological advancements, or audience preference shifts, just to mention a few.

This article chose to focus on three exemplary case studies of the MMORPG genre while insights on business model change have been consolidated into a novel business model paradigm. This novel paradigm unveils that a business model can be changed successfully in the eye of disruption. Each case needed to change and re-configure its business model as a reaction to market changes while strong network and lock-in effects influenced these revisions. The changes followed an identified logic of trade-off: capturing or offering potentially higher value per player vs. accessing a potentially larger player-base. This meant that the business models reacted in the (1) organisation design (value chain integration vs. disintegration), (2) technology design (high vs. low technological capabilities), (3) service design (mainstream genre vs. niche genre) and (4) finance design (high prices and subscription model vs. free-to-play and low prices). When disruption occurs, media managers can use this paradigm of shifting along the trade-off strategically to successfully establish a revised sustainable online business model.

We believe that this new paradigm can help enhance the management approach of online business model strategies for the whole media industry and that it provides more insights into the complex reality of online business value creation in a disruptive environment. It is important to note that this paradigm does not explain (1) what kind of disruptions can or should cause business model revision, (2) what internal and external factors guide the choice of the manager to adjust the parameters one way or the other and (3) how to determine the relation of potential value and player-base through business model change processes and actual outcome. More research is needed to fully understand these causations that come into play. This is also the limitation of the business model approach. Business models are not holistic enough to include all external and internal aspects that come into play in business model revision in the eye of disruption.

Still, the novelty of the paradigm is that it unifies the novel idea of business modeling change after disruption with the clear trade-off choice.⁴ Additionally, the paradigm emphasises the changes and strategic choices managers of media businesses can make when they deal with the disruptiveness of the online environment. As Christensen pointed out: 'today's competitive advantage may become tomorrow's albatross unless strategies attune themselves to changes in underlying conditions' (Christensen, 2001).

Competing Interests

The authors have no competing interests to declare.

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Notes

- ¹ The term 'micro-transaction' refers to a revenue model in which the player can purchase any goods or services once they have started playing the game, as with virtual item sales. As freemium largely extends the whole game-play and game-world, it is not referred to as a micro-transaction.
- ² 'Freemium' is a revenue model by which a product or service (typically a digital offering or application such as software, media, games or web services) is provided free of charge, but money (premium) is charged for proprietary features or functionalities.
- ³ An exception to this distribution model can be found in certain regions, where legislation requires specific structures like the partnering with local distributors (which is also applicable for the other case studies). In the case of Blizzard, there are (for instance) licence arrangements in place to distribute or publish the game in Russia, China and Taiwan (Activision Blizzard Annual Report, 2011). These cases are regarded within this study as exceptions and do not influence the development of the theoretical framework as these business model structures are not put into place at the game developer's choice.
- ⁴ We also acknowledge that the idea of having a trade-off is very close to already existing well-known concepts that also incorporate a trade-off. For instance, the idea of 'control vs. openness' comes from platform literature that deals with two-sided markets such as providers of operating systems and game console producers (Tåg, 2008). Authors agree that in this kind of market there 'may be a trade-off between attracting a developer community (that raises the value of the platform) and ensuring high standards' (Tåg, 2008). Additionally, in standard economic theory, the 'quality [of a product] depends on price' and 'higher-quality items will sell at higher prices' (Stiglitz, 1987: 3). A trade-off can be here assumed as well: producing lower quality for lower prices vs. producing higher quality for higher prices.

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