Subscription-Based Gaming – A New Business Model In the Video Game Industry

Master Thesis

Management of Creative Industries

Submitted by: Kazimi, Lida

Matriculation Number: 036687

Course Number: HM022

1. Supervisor: Dr. Prof., Behrmann, Malte

2. Supervisor: Reinartz, Philipp

Submitted on: 31 October 2019

Abstract

Evidently, subscription-based distribution is now the de facto method of content consumption for music and TV, and gaming is increasingly embracing the model too. In the present study, the research question to be investigated is, whether subscription-based services for video games are going to revolutionize the video game industry. In the first instance, relevant literature and verified online sources have been reviewed in order to create a solid theoretical base. Then, qualitative expert interviews have been conducted with video game industry experts to gain deeper insight. Based on these exploratory research methods, the final outcome of this study provides a comprehensive insight into the current state of the video game industry and its potential future regarding the upcoming shift in the way video games are made and played, that might come along with subscription-based video game services.

Acknowledgements

I would like to thank my supervisor Prof. Dr. Malte Behrmann for encouraging me to change my career path. Even though the past months were quite challenging for me, I am very glad I made this decision. Thank you for your patience and your support. Also, thank you for dedicating yourself to this exceptional study program, which has opened a whole new perspective for me.

Lida Kazimi

Table of Contents

List of Abbreviations

AMA	Ask Me Anything
AR	Augmented Reality
CAGR	Compound Annual Growth Rate
F2P	Free-to-Play
GaaS	Games-as-a-Service
GDC	Game Developers Conference
E3	Electronic Entertainment Expo
MMO	Massively Multiplayer Online Game
P2P	Pay-to-Play
VR	Virtual Reality

List of Tables

List of Figures

Terminology

Augmented Reality (AR): A technology that supplements real-life views of users with computer-generated sensory input as images or sounds

Battle Royale: An online multiplayer video game genre

Brick-and-Mortar: Refers to traditional businesses that operate from physical storefronts

Cloud Gaming: The ability to play a video game on any device without owning the physical hardware required to process it

Compound Annual Growth Rate (CAGR): The constant growth rate over a period of years

Cross-Platform Play: The ability of players using different video game hardware to play with each other simultaneously

eSports: Competitive gaming at a professional level

Free-to-Play (F2P): A revenue model wherein limited content is available to consumers free of charge

Games-as-a-Service (GaaS): Delivering video games on a continuing revenue model

Microtransaction: A very small financial transaction conducted online

Pay-to-Play (P2P): A revenue model wherein consumers receive unlimited access to the full game content for a fixed payment or a schedule of payments

Razor-Razorblade Model: A pricing strategy in which a dependent good is sold at a loss and a paired consumable good makes the profits

Virtual Goods: Non-physical goods, typically purchased in online communities or (online) games

Virtual Reality (VR): A computer-generated simulation of a three-dimensional image or environment

1 Introduction

The subscription model is a growing trend in gaming. People want to experience video games progressively the same way they experience other types of entertainment, namely with direct access to a wide range of options. As more people move to digital, the demand for physical video games has dropped, affecting retail chain stores like GameStop. Accordingly, paid online services such as Xbox Live Gold and PlayStation Plus have become widespread in the video game industry, and more and more companies are beginning to implement their own video game subscription services[1]. This trend was fully displayed at E3 2019, where developer Ubisoft announced its Uplay+ subscription service, Microsoft announced its newly combined subscription service Xbox Game Pass Ultimate and disclosed additional information about its upcoming video game streaming platform xCloud, and Google detailed Stadia, a subscription-based game streaming platform which is about to launch by the end of this year alongside Apple's cross-platform video game subscription service Arcade[2]. Reportedly, Amazon is also developing such a service, but no further information is yet available[3]. As regards the future of the video game industry, the year 2019 is so far all about subscription services and streaming, raising the question of whether these services become an integral way or stay an alternative method of playing video games. Hence, this study aims at investigating the effect of subscription-based services for video games on the video game industry to gain further insight into the current state and the potential future of gaming. The present paper consists of a theoretical and an empirical research. In the first step, relevant literature and verified online sources have been used in order to define the video game industry by giving a brief overview of its current state, presenting recent statistics and trends, outlining its structure, and describing the core business models that have characterized the industry from 1970 to today. Moreover, subscription-based gaming is explained in particular and certain upcoming subscription services are introduced. For the empirical research, expert interviews have been conducted in order to gain in-

---

[1]Webb, Kevin: Microsoft, Sony, and Google are investing in subscriptions and streaming to give gamers more choice – but the real challenge is changing the way people play, 2019. Available at: https://www.businessinsider.de/apple-arcade-google-stadia-video-game-subscription-boom-2019-7?r=US&IR=T (Accessed: 7 August 2019)
[2]Alexander, Julia: E3 proved that video game publishers want to become Netflix, 2019. Available at: https://www.theverge.com/2019/6/13/18677905/e3-2019-xbox-ubisoft-square-enix-google-stadia-phil-spencer (Accessed: 7 August 2019)
[3]Shaban, Hamza: Amazon reportedly developing a subscription video game streaming service, 2019. Available at: https://www.washingtonpost.com/technology/2019/01/11/amazon-reportedly-developing-subscription-video-game-streaming-service/ (Accessed: 7 August 2019)

depth understanding of the existing issue and identify problems that can be analysed in future researches.

2 Literature Review

This chapter aims to present a general overview of the video game industry at the present time. Therefore, secondary data sources, inter alia, relevant books portraying the video game industry's history and economical evolution, recent market research reports, academic articles as well as articles written in online publications, and video game companies' web pages including their annual reports have been reviewed. In the following sections, a brief overview of the video game industry's current state is given by presenting recent statistics and emerging trends, outlining the industry's structure, and describing its core business models. Moreover, subscription-based gaming is explained in particular, and upcoming video game subscription services are introduced in full detail.

2.1 The Video Game Industry in 2019

The video game industry is a dynamic and constantly changing industry that, in comparison with other media industries, has a short history. When determining the start of the video game industry with the launch of the first coin-operated video game in 1971, then the industry is about 48 years old today. A pleasing trend in the last decade has been the accessibility of video games, and the growing audience they serve. New ways to create and play appear every year, and the future of the global video game market looks promising. In the following sub-sections, recent statistics and emerging trends are presented, and a new gamer segmentation developed by Newzoo, the leading global provider of games and eSports analytics, is introduced and explained in full detail.

2.1.1 Recent Statistics

According to the latest Newzoo report, there are now over 2.5 billion gamers worldwide, and by 2019, the global video game market's value is estimated to reach $152.1 billion[4]. As of yet, the video game market can be divided into three segments, namely: (1) mobile; (2) console; and (3) PC. With every segment showing growth, it can be concluded that the market is currently in a healthy state.

---

[4]Newzoo: Free Global Game Market Report, 2019. Available at: https://resources.newzoo.com/hubfs/Reports/2019_Free_Global_Game_Market_Report.pdf?__hstc=133451409.fb0f216ec61dec35aa33d1887f4d789d.1563739102818.1566044258891.1566047560216.14&__hssc=133451409.4.1566047560216 (Accessed: 10 July 2019)

As illustrated in the following figure, in 2019, mobile gaming will remain the largest segment since 2016 by producing revenues of $68.5 billion – 45% of the global

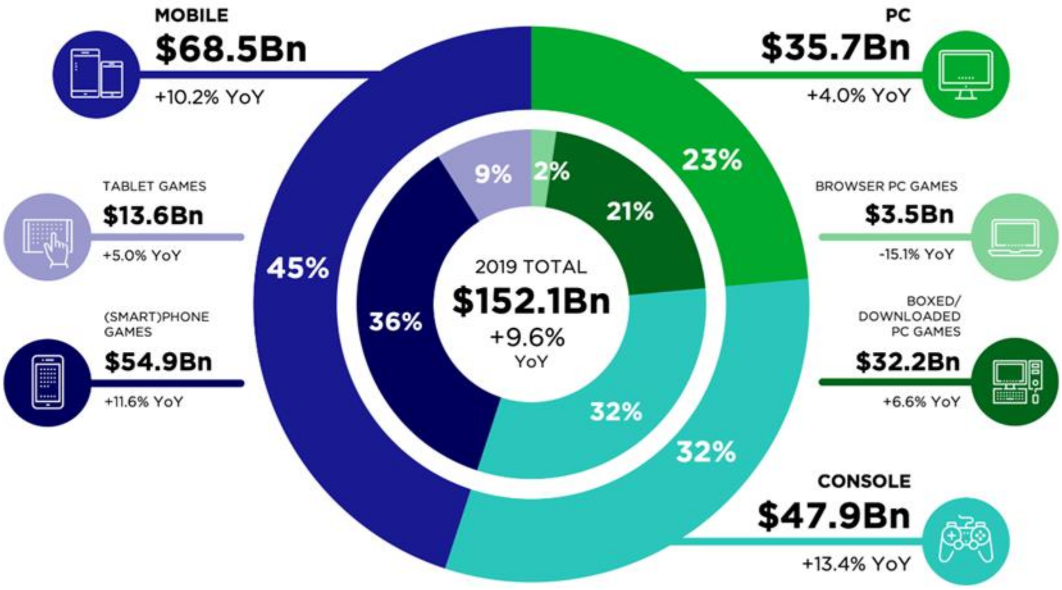

Figure 1: Revenue per device and segment in 2019 (Newzoo, 2019)

video game market, of which 80% will come from (smart)phone games. The mobile segment generally involves (smart)phone and tablet games. The second-largest segment is the console segment by producing revenues of $47.9 billion in 2019. By 2022, it is estimated to grow to $61.1 billion with a CAGR of +9.7%. PC gaming, generally consisting of browser and boxed/downloaded PC games, will generate $35.7 billion in 2019, making it the third-largest segment. Growth in downloaded/boxed PC games is partially offset by declining browser PC revenues, as browser gamers have mostly transitioned to mobile[5]. With a CAGR of -14.7%, browser PC revenues will continue to decline from $3.5 billion this year to $2.2 billion in 2022, and at the same time, mobile gaming (smartphone and tablet combined) will produce revenues of $95.4 billion in total, growing with a CAGR of +11.3%, making up almost half of the entire market. Emerging markets and improvements in hardware and infrastructure are, inter alia, the main factors responsible for the segment's growth. Increasing with a CAGR of +9.7%, revenues generated by the console segment are estimated to reach $61.1 billion in 2022 due to the upcoming release of the next-generation Xbox and PlayStation consoles, the new Switch models, and the huge installed base of the current console

[5]Newzoo: Free Global Game Market Report, 2019. Available at: https://resources.newzoo.com/hubfs/Reports/2019_Free_Global_Game_Market_Report.pdf?__hstc=133451409.fb0f216ec61dec35aa33d1887f4d789d.1563739102818.1566044258891.1566047560216.14&__hssc=133451409.4.1566047560216 (Accessed: 10 July 2019)

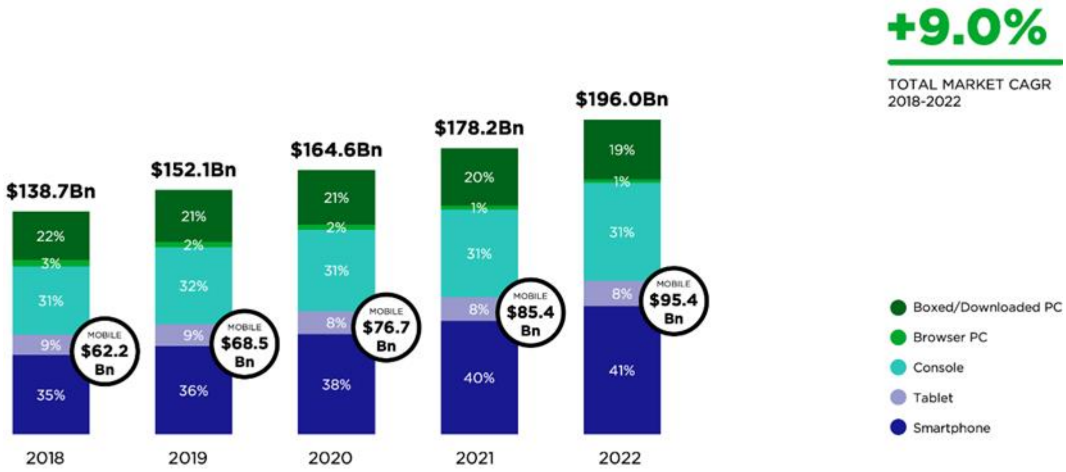

Figure 2: Revenue per segment toward 2022 (Newzoo, 2019)

generation[6]. For PC, revenues will grow at a slower pace than mobile and console revenues. Nevertheless, by 2022, with a CAGR of +3.5%, the overall PC gaming market will grow to $39.5 billion. And, downloaded/boxed PC games will generate $37.3 billion by 2022, growing with a CAGR of +5.4%. In total, as the figure above implies, the global video game market's value is estimated to grow to $196.0 billion by 2022 with a CAGR of +9.0% between 2018 and 2022.

2.1.2 Emerging Trends

Gaming has become a social and cultural phenomenon as video games are becoming ever-more popular, and more and more people grow up playing them[7]. However, the expected growth of the overall market value toward 2022 depends on emerging markets, increase in cross-platform titles, and mobile technologies such as 5G for easier access to online games and streaming services. According to Newzoo CEO Peter Warman, cloud gaming, for example, brings a platform-agnostic future in which there will no longer be discussions about what is the best console, nor the differences in video game consumption across devices, but the only thing that will matter, he states, is which services offer the best gaming experiences and content[8]. Cloud gaming is, explained in a simple manner, a

[6]Newzoo: The Global Games Market Will Generate $152.1 Billion in 2019 as the U.S. Overtakes China as the Biggest Market, 2019. Available at: https://newzoo.com/insights/articles/the-global-games-market-will-generate-152-1-billion-in-2019-as-the-u-s-overtakes-china-as-the-biggest-market/ (Accessed: 10 July 2019)
[7]Paulsen, Nina; Klöß, Dr. Sebastian: Mobil und flexibel: Die Gaming-Trends 2019, 2019. Available at: https://www.bitkom.org/Presse/Presseinformation/Mobil-und-flexibel-Die-Gaming-Trends-2019 (Accessed: 10 July 2019)
[8]Newzoo: Free Global Game Market Report, 2019. Available at: https://resources.newzoo.com/hubfs/Reports/2019_Free_Global_Game_Market_Report.pdf?__hstc=133451409.fb0f216ec61dec35aa33d1887f4d789d.1563739102818.1566044258891.1566047560216.14&__hssc=133451409.4.1566047560216 (Accessed: 10 July 2019)

method of playing video games by using remote hardware, typically in the form of servers owned by a separate company. Rather than downloading a video game or installing it via physical media and playing it locally, cloud gaming relies on internet streaming to deliver video games on any device of choice. Google and Microsoft are currently the two major front-runners of cloud gaming. While Google offers cloud gaming as the sole way to play video games on Stadia, Microsoft presents Project xCloud as an additional technology rather than an individual service. From today's point of view, just as mobile gaming expanded the market by making video games accessible to billions of people on a global scale, it can be said that cloud gaming, for example, has the potential to expand the market for premium video games beyond the current console and PC audience[9]. Accordingly, an increase in the overall demand for video games is expected as new consumer groups enter the ecosystem, and more and more large companies enter the gaming industry.

2.1.3 New Gamer Segmentation

With the increasing popularity of video games, the traditional stereotype of the average gamer is consequently no longer valid. As of yet, video game industry professionals still tend to divide gamers into two categories – the hardcore and the casual. However, the characteristics that specify these categories are too imprecise and usually based on personal experience and intuition. As a consequence, there is great uncertainty about who these gamers actually are and what they want in particular. Over the past ten years, consumer engagement with video games has changed dramatically, and just as multi-dimensional und fragmented the video game industry is now, so too are gamers. Consequently, these new dimensions of gaming demand a new segmentation as personas like "casual gamer" and "hardcore gamer" no longer suffice. Yet, the industry does little formal market research concerning this issue. Therefore, Newzoo developed a new gamer segmentation from scratch in order to give a complete picture of how modern consumers are engaging with gaming content through playing, viewing, and owning[10]. In the following table, the suggested eight personas taken from

---

[9]Newzoo: Infographics, 2019. Available at: https://newzoo.com/insights/infographics/ (Accessed: 10 July 2019)

[10]Newzoo: Introducing Newzoo's Gamer Segmentation: The Key to Understanding, Quantifying, and Reaching the New Era of Game Enthusiasts, 2019. Available at: https://newzoo.com/news/introducing-newzoos-gamer-segmentation-the-key-to-understanding-quantifying-and-reaching-game-enthusiasts-across-the-world/ (Accessed: 13 July 2019)

Newzoo's recent report are presented and a short description of each persona's main characteristics is given as well.

Personas	**Main Characteristics**
Popcorn Gamer	- Enjoys watching video game content/eSports - Typically does not play many video games
Cloud Gamer	- Prefers free-to-play or discounted titles - Does not necessarily spend money on hardware
Backseat Viewer	- Watches video game content/eSports - Rarely plays video games
Ultimate Gamer	- Enjoys video games across all spectrums of the market - Invests in the newest hardware and peripherals
Conventional Player	- Likes to stay up to date with the latest video game releases and developments - Likes to own the newest hardware and peripherals
All-Round Enthusiast	- A passionate gamer - Enjoys a holistic gaming experience, combining playing video games, viewing game content, and owning dedicated game hardware
Time Filler	- Consumers who typically play on mobile devices to pass time - Do not see gaming as a major part of their lives
Hardware Enthusiast	- Casual about gaming - Hardware is indispensable for this persona's experience

Table 1: Overview of Newzoo's gamer segmentation (Newzoo, 2019)

2.2 Value Chain

In order to comprehend the content of the following chapters to the fullest extent, it is crucially important to have a basic understanding of the prevalent structure of

Figure 3: Traditional value chain

the video game industry. As illustrated in the preceding figure, the core participants within the video game industry are traditionally considered to be hardware manufacturers, developers, publishers, distributors, retailers, and consumers[11]. Hardware manufacturers like Microsoft, Sony, and Nintendo produce hardware components and devices such as PCs, gaming consoles, and handhelds to process video games. The developer is the participant who creates the respective video games, but due to the lack of financial means to fund and promote them, developers need publishers. Publishers, generally software marketing companies who pay licensing fees for rights to publish video games, or contract and sub-hire third-party or independent developers to create video games for them, market video game titles and distribute them to retailers and end-consumers. Although video games are digital products, they are still to some extent sold in retail stores as physical products. With the possibility of purchasing video games digitally since the introduction of the internet, digital distribution has taken over most distribution today. Distributors are traditionally speaking the middlemen between publishers and retailers. However, due to the progressive shift towards digital distribution, new methods of distribution have been introduced, and the functions and dynamics of interaction between the respective participants of the traditional value chain have begun to restructure. Major platform manufacturers have established the possibility of purchasing video games through their own online stores, and third-party companies like Valve Corporations, for example, have developed online-storefronts where consumers can download video games directly to their PCs. Also, publishers have the possibility to distribute video games through internet service providers (ISPs) or via device manufacturers. ISPs and device manufacturers act as content aggregators and provide markets for the direct distribution of video games. To some extent, the access to an unlimited global market for distribution of video games through ISPs or device manufacturers also provides a direct relationship for development companies with end-consumers. As a result, new business models such as free-to-play (F2P) and microtransaction, for example, have emerged.

2.3 Evolution of Business Models

In the following subsections, the core business models that have characterized the video game industry from 1970 to today are presented in full detail, but first, in

[11]Zackariasson, Peter; Wilson, Timothy L.: The Video Game Industry: Formation, Present State and Future, New York, 2012, p. 3

order to provide a general understanding of the term ‘business model’, and the corresponding concept behind it, some of the most accepted and known definitions are chronologically presented in the following table. Even though there are some conceptual similarities, it is very important to mention that each definition is still different, and many definitions are tightly connected to the respective field of research[12].

Source	**Definition**
Zott et al., 2001	Depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities
Magretta, 2002	A logical story explaining who the customers are, what they value, and how the business will make money in providing them value
Osterwalder et al., 2005	A conceptual tool containing a set of elements and their relationships and expressing the business logic of a specific firm
Chesbrough et al., 2007	Creates value within the value chain, and captures a piece of value for the focal firm in that chain
Johnson et al., 2008	Consists of four interlocking elements, namely customer value proposition, profit formula, key resources and key processes that taken together create and deliver value
Osterwalder et al., 2010	Describes the rationale of how an organization creates, delivers and captures value
Johnson, 2010	The way a company delivers value to a set of customers at a profit

Table 2: Definitions of the term ‘business model’

[12]Ovans, Andrea: What is a Business Model, 2019. Available at: https://hbr.org/2015/01/what-is-a-business-model (Accessed: 16 July 2019)

2.3.1 Arcade/Coin-Ops

An arcade game or coin-op is a coin-operated entertainment machine. Charging people a quarter at a time was the first revenue model in the video game industry[13]. In the late 1970s video games were introduced in amusement arcades and were most popular during the early 1980s, the so-called golden age of arcade video games. According to Ely, for players, the ‘quarter per play’ proposition is a simple concept, but the coin-op model is actually quite complex as the difficulty of the game must be high enough to make the players reach a game-over state or the game itself must be addictive enough to keep the players playing in order to make profit[14]. Today, looking at the revenue Bandai Namco, the premier manufacturer of coin-operated arcade games, makes from selling arcade machines, it can be assumed that arcades are still relevant[15].

2.3.2 Traditional Retail

Traditionally, the video game sector has made most of its revenue through brick-and-mortar retail by selling hard copies in retail stores. In this traditional model, due to direct interaction with the end-consumer in particular, the retailers control the value chain. Besides, the retail business is predominantly hardware-driven and therefore highly expensive. Therefore, in order to lure customers, console manufacturers initially sell their devices at loss and try to make up for the lost profits through high-priced games consumers buy much more often over a longer period. When Microsoft, for example, first launched its Xbox console in 2001 at a retail price of $299 – significantly less than its production costs – it was estimated that Microsoft lost between $100 and $125 per unit[16]. Consequently, the razor-razorblade model – a pricing strategy in which a dependent good is sold at a loss and a paired consumable good makes the profits – is the retail business model for video games[17]. However, in recent times, the demand for physical video games

---

[13]Van Dreunen, Joost: A Business History of Video Games: Revenue Models from 1980 to Today, 2011. Available at: https://www.yumpu.com/en/document/read/26908617/a-business-history-of-video-games-revenue-models-superdata- (Accessed: 17 July 2019)
[14]Ely, Jeff: The Economics of Pinball, 2009. Available at: https://cheaptalk.org/2009/11/17/the-economics-of-pinball/ (Accessed: 17 July 2019)
[15]Bandai Namco: Consolidated Financial Results, 2019. Available at: https://www.bandainamco.co.jp/cgi-bin/releases/index.cgi/file/view/9314?entry_id=6244 (Accessed: 17 July 2019)
[16]Schilling, Melissa: Microsoft’s Xbox, 2002. Available at: https://www.academia.edu/17729684/Microsofts_Xbox (Accessed: 17 July 2019)
[17]Kenton, Will: Razor-Razorblade Model, 2019. Available at: https://www.investopedia.com/terms/r/razor-razorblademodel.asp (Accessed: 17 July 2019)

has dropped as more and more people move to digital, massively affecting retail chain stores like GameStop.

2.3.3 Digital Distribution

With the introduction of the internet, the video game industry shifted from brick-and-mortar retail to digital downloads, which, as a consequence, resulted in a drastic sales decline at video game retail stores. Delivering video game content directly to the end-consumer over the internet as a digital product has become increasingly common over time. Naturally, in order to reduce costs and increase revenue, major publishers and retailers started to pay more and more attention to digital sales. First released in September 2003, Steam, a digital distribution platform for video games developed by Valve Corporation, was initially launched as a way for Valve to provide automatic updates for their video games, and then expanded to include video games from third-party publishers. Today, Steam is the largest digital distribution platform for PC gaming. Estimated to have 75% of the market space in 2013, Steam is the largest digital distribution platform for PC gaming[18]. By 2017, Steam's market share grew to $4.3 billion[19]. However, recent

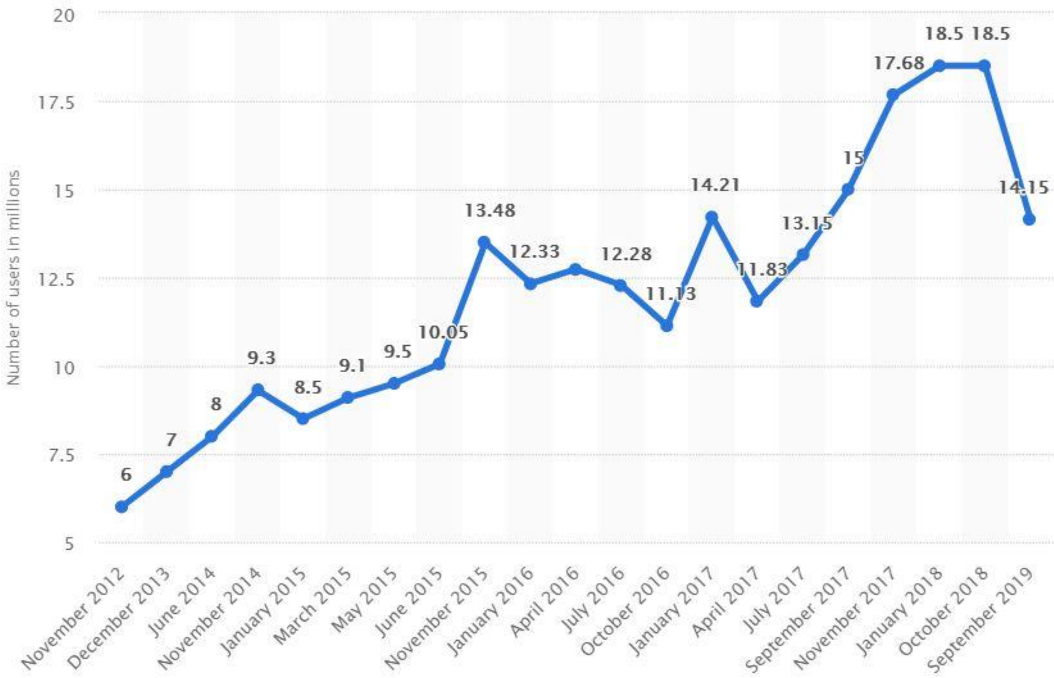

Figure 4: Number of peak concurrent Steam users (Statista, 2019)

[18]Edwards, Cliff: Valve Lines Up Console Partners in Challenge to Microsoft, Sony, 2013. Available at: https://www.bloomberg.com/news/articles/2013-11-04/valve-lines-up-console-partners-in-challenge-to-microsoft-sony (Accessed: 19 July 2019)

[19]Bailey, Dustin: With $4.3 billion in sales, 2017 was Steam's biggest year yet, 2018. Available at: https://www.pcgamesn.com/steam-revenue-2017 (Accessed: 19 July 2019)

statistics show that the gaming platform's user retention rate has steadily fallen as it tries to keep up with console giants, Xbox and PlayStation, continually producing hits and exclusives from the production line[20]. Moreover, Epic Games, the creator of Fortnite, has become a direct competitor to Steam after launching its Epic Games Store in 2018.

2.3.4 Free-to-Play

Revenue models in the video game industry are divided into two groups, namely pay-to-play (P2P), which basically means that consumers receive unlimited access to the full game content for a fixed payment or a schedule of payments, and free-to-play (F2P), where limited content is available to consumers free of charge while additional content or removal of restrictions is possible for extra payments. Pay-to-play models existed in the industry from the beginning, whereas free-to-play models were adopted due to a growing population of casual gamers[21]. Free-to-play is a direct derivative from the so-called freemium business model. This model is characterized by providing its product or service at no charge with a set of basic functions attached to it. Monetization occurs with the offer of additional functions and services that enhance the core product and its experience for the consumer. Free-to-play emerged as a business model to compete with classic models such as one-time payment and subscription-based models that required a financial investment before allowing the users to play the game. In this context, the core of the game is free, but the gameplay is generally restricted in some manner. For example, it might only be possible to play for a certain period, or certain actions are limited within the game. Another way of monetization besides restricting gameplay is to offer a variety of virtual goods for sale that enhance the gaming experience in some way. In fact, this has become the primary method of monetizing these games[22]. By offering a game at no charge, developers expect to attract a large user base shortly after the launch. By 2025, the global virtual goods market

[20]Statista: Number of peak concurrent Steam users from November 2012 to September 2019, 2019. Available at: https://www.statista.com/statistics/308330/number-stream-users/ (Accessed: 19 July 2019)
[21]Tezhik, Gregory: Understanding the Transforming Revenue Models in the Games Industry, 1st Edition, Saarbrucken, 2016, p. 3
[22]Marchand, Andre; Hennig-Thurau, Thorsten: Value Creation in the Video Game Industry: Industry Economics, Consumer Benefits, and Research Opportunities, 2013. Available at: https://www.researchgate.net/publication/255995598_Value_Creation_in_the_Video_Game_Industry_Industry_Economics_Consumer_Benefits_and_Research_Opportunities/link/5a5dc4aa0f7e9b4f783a878b/download (Accessed: 19 July 2019)

value is estimated to reach $189.76 billion[23]. The rising demand for virtual goods is majorly impacted by the growing use of social networks and online gaming sites.

2.3.5 Microtransaction

Microtransaction is a business model allowing gamers to buy virtual goods via micropayments to increase a video game's replay value beyond the initial purchase. Simply put, gamers can purchase virtual goods (e.g. items, maps, characters, skins) within, or as part of a video game. Although the purchase of additional content is optional, this model's approach is to encourage gamers to improve their gaming experience by upgrading their characters or receiving special items[24]. In 2017, Activision Blizzard made $7.16 billion in revenue, of which $4 billion came from microtransactions[25].

2.3.6 Subscription

Figure 5: Revenue from subscription services in Q3 2018 (SuperData, 2018)

[23]Adroit Market Research: Rising Popularity Of Social Networks Gaming To Drive The Virtual Goods Market At A CAGR Of 22.3%, 2019. Available at: https://www.adroitmarketresearch.com/press-release/virtual-goods-market (Accessed: 19 July 2019)
[24]Arrambide, Karina: Games as a Service – the model of Microtransactions, 2018. Available at: https://medium.com/@hcigamesgroup/games-as-a-service-the-model-of-microtransactions-1a0e1e847119 (Accessed: 19 July 2019)
[25]Thubron, Rob: Over half of Activision Blizzard's $7.16 billion yearly revenue came from microtransactions, 2018. Available at: https://www.techspot.com/news/73230-over-half-activision-blizzard-716-billion-yearly-revenue.html (Accessed: 19 July 2019)

Video game subscription services like PlayStation Now, Xbox Game Pass, and EA Access are becoming increasingly popular by offering a library of premium video games for a monthly fee. These top three subscription services contributed 6% of the overall console and PC revenue in the third quarter of 2018. According to a SuperData report, a trend analogous to video and music streaming is foreseeable[26]. In other segments of the media and entertainment industry such as film, television, and music, subscription services to stream, inter alia, movies or TV series (e.g., Netflix, Amazon Prime, Hulu), and songs (e.g., Spotify, Apple Music, Amazon Music) have become standard, leading video game publishers to push subscription services in order to develop a stream of consistent and dependable recurring revenue. Also, progressively more companies, including Google and Apple, for example, are beginning to develop their own video game subscription services. However, looking at the evolution of business models in the video game industry, the classic subscription business model is nothing new to the industry. Although the free-to-play business model is the norm today, the market for massively multiplayer online games (MMOs) has been very successful in encouraging its consumers to pay a recurring subscription fee. Launched in 1984 on service provider CompusServe, Island of Kesmai, the first commercial MMO cost $12 per hour, which was considered a very reasonable fee at the time[27]. By 2004, the MMO market was in full progress. Activision Blizzard's World of Warcraft, for example, reached 1.5 subscribers in the first quarter of 2005 after its launch in November 2004[28]. In the second half of 2010, the game reached the peak of its popularity when Activision Blizzard's estimates put the global number of active subscribers at 12 million[29].

2.4 Upcoming Video Game Subscription Services

As already mentioned in the introduction, E3 2019 was all about video game subscription services. Hence, the subscription model is a growing trend in gaming, raising the question of whether the industry is on the peak of one of the most significant changes. From this year onwards, the video game industry is about to

[26]SuperData Research: Gaming Subscription Services Report, 2019. Available at: https://www.superdataresearch.com/gaming-subscription/ (Accessed: 20 July 2019)
[27]Mulligan, Jessica; Patrovsky, Bridgette: Developing Online Games: An Insider's Guide, Indianapolis, 2003, p. 447
[28]Statista: Anzahl der Abonnenten von World of Warcraft bis Q3 2015, 2015. Available at: https://de.statista.com/statistik/daten/studie/208146/umfrage/anzahl-der-abonnenten-von-world-of-warcraft/ (Accessed: 20 July 2019)
[29]Business Wire: World of Warcraft Subscriber Base Reaches 12 Million Worldwide, 2010. Available at: https://www.businesswire.com/news/home/20101007005648/en (Accessed: 20 July 2019)

enter not only a new generation of consoles, but seemingly a new way to access video games in the form of subscription services. Microsoft's Xbox briefing during E3 best encapsulated this potential future. Beside the reveal of its next-generation Xbox console Project Scarlett, Microsoft focused on its newly combined subscription service Xbox Game Pass Ultimate, and disclosed additional information about its upcoming video game streaming platform Project xCloud. Google and Apple, meanwhile, are already set to spin up their own gaming subscription strategy. In the following, the three internet giant's upcoming services and their very different strategical approaches and business models are introduced and presented in full detail by beginning with Microsoft, continuing with Google, and ending with Apple.

2.4.2 Microsoft Project xCloud

The house of Xbox announced Project xCloud in October 2018, putting emphasis on streaming video games to PCs, smartphones, and tablets. xCloud reportedly runs on blades made from Xbox One S hardware to ensure a gameplay experience similar to local Xbox One systems[30]. Accordingly, it will be compatible with Xbox systems, which means that every single Xbox One game that has been published, or any other Xbox or Xbox 360 game that can be played on the Xbox One console can be played via xCloud as it is not being created as a replacement for consoles but rather as an additional technology[31]. Moreover, it means that developers will be able to let gamers access their Xbox One games via xCloud effortlessly. At the very first glance, Microsoft's Project xCloud looks a lot like Google's upcoming subscription-based video game streaming service Stadia, but there is one major factor which potentially can make a significant difference – the Xbox Game Pass Ultimate. Announced at E3 2019, Ultimate is Microsoft's newly combined subscription service that collapses Xbox Live Gold and Xbox Game Pass into a single subscription all for $14.99 per month. Live Gold brings access to online multiplayer games, purchase discounts, and a monthly selection of free games, while Game Pass gives access to a library of over 100 video games, including Xbox exclusives and some video games from third-party developers, available on the day of release. However, Microsoft has not officially said anything about

[30]Gurwin, Gabe: Microsoft's Project Scarlett: Everything we know about the next-gen game console, 2019. Available at: https://www.digitaltrends.com/gaming/xbox-scarlett-rumor-roundup/ (Accessed 23 July 2019)
[31]Callaham, John: Microsoft's Project xCloud: Everything we know so far, 2019. Available at: https://www.androidauthority.com/microsoft-project-xcloud-2-915999/ (Accessed: 23 July 2019)

combining xCloud and Game Pass Ultimate. In general, there is not much detailed information given on the upcoming service's strategy. Also, neither a fixed release date, nor a price have been declared yet.

2.4.1 Google Stadia

Google formally unveiled its upcoming subscription-based video game streaming service Stadia at GDC 2019 in San Francisco with the promise of upending the industry by changing how video games are played, distributed, sold, and even built. Additionally, Google announced its own first-party studio Stadia Games and Entertainment that will be creating exclusive video games for the upcoming platform. Reportedly, the service works on practically any compatible device running Google Chrome. Simply put, Google's servers will run the video game and send users the visual output through the internet. The only physical component of Stadia will be a universal controller that is already available for purchase. For an initial 'Founder's Edition' price of $130 for a hardware starter kit with three months of premium service and $10 per month afterwards, the service will officially launch with at least 31 games from 21 different publishers on the 19th of November in 14 different countries. Besides, there is a separate free tier coming in 2020 called Stadia Base. On the 18th of July 2019, product director Andrey Doronichev hosted an AMA on Reddit in order to clear up some of the uncertainties around what the service will actually offer. One of the biggest misunderstandings cleared up in the course of the questioning is whether or not the Stadia Pro subscription is some kind of 'Netflix for Games', as the Stadia website makes reference to an ever-expanding library of video games at no extra cost. In fact, this ever-expanding library is not a 'Netflix-style' library of content at all. Unlike Netflix, Stadia sells the content it streams. Therefore, it can be said that Stadia is not primarily a subscription service in the proper sense. According to Doronichev, Stadia Pro is rather comparable to Xbox Live Gold or PlayStation Plus, offering a subscription model that includes one free video game per month alongside direct purchases and access to 4K gaming at 60 fps with HDR and 5.1 surround sound[32]. However, Uplay+, Ubisoft's newly revealed video game subscription service, is expected to be available on Stadia as of 2020, bringing more than 100 video games with it for

[32]Doronichev, Andrey: Hi, I'm Andrey Doronichev and I'm the Director of Product for Stadia here at Google! AMA, 2019. Available at: https://www.reddit.com/r/Stadia/comments/ceuy4w/hi_im_andrey_doronichev_and_im_the_director_of/ (Accessed: 21 July 2019)

$14.99 per month[33]. However, the subscription fee for Uplay+ is not included and therefore has to be paid separately.

2.4.3 Apple Arcade

Back in March, two weeks after Google announced Stadia, Apple unveiled Arcade, a subscription service that will let Apple users play video games across iPhone, iPad, Mac, and Apple TV devices. Apple's App Store is considered one of the most dynamic gaming platforms as it has nearly 300,000 free and paid games[34]. Supported by ads and in-app purchases, the free games are played by hundreds of millions of people worldwide, whereas the paid games are struggling with reaching a larger audience[35]. In order to solve this issue, Apple Arcade brings paid games to the App Store's gaming customers by offering a single subscription. Unlike Google and Microsoft, Apple is taking a different approach with Arcade. Instead of streaming a video game, Arcade players will download it to their Apple device to play. Accordingly, every video game on Arcade will be playable offline. Apple counts on new and exclusive titles in order to drive success and stays away from the upcoming cloud gaming battle, aiming to acclaim the advantages of iOS as a gaming platform[36]. It is important to mention that Apple is not just handpicking the video games, but is also contributing to the development costs. Apple aims to introduce an innovative way to access a collection of brand new video games that will not be available on any other mobile platform, or in any other subscription service[37]. A subscription to Arcade will offer consumers the possibility to try any video game in the service easily and risk free, and as access to the full experience of the video game is provided, no additional purchases will be required. Apple

[33]Schoon, Ben: Google Stadia will add Uplay+ in 2020 w/ unlimited access to Ubisoft games, 2019. Available at: https://9to5google.com/2019/06/10/google-stadia-uplay-ubisoft-subscription/ (Accessed: 21 July 2019)
[34]Miller, Chance: Apple announces 'Apple Arcade' game subscription service through App Store, 2019. Available at: https://9to5mac.com/2019/03/25/apple-game-subscription-bundle/ (Accessed: 23 July 2019)
[35]Webster, Andrew: Apple Arcade has game developers excited, but questions remain, 2019. Available at: https://www.theverge.com/2019/3/26/18282134/apple-arcade-game-developer-reaction-excitement-caution (Accessed: 23 July 2019)
[36]Warren, Tom: Apple Arcade is a new game subscription for iOS, Mac, and Apple TV, 2019. Available at: https://www.theverge.com/2019/3/25/18280589/apple-arcade-gaming-subscription-release-date-pricing-features (Accessed: 23 July 2019)
[37]Apple: Apple introduces Apple Arcade — the world's first game subscription service for mobile, desktop and the living room, 2019. Available at: https://www.apple.com/gw/newsroom/2019/03/apple-introduces-apple-arcade-the-worlds-first-game-subscription-service-for-mobile-desktop-and-the-living-room/ (Accessed: 23 July 2019)

Arcade already launched in September 2019, and cost \$4.99 per month for an entire family, including a free trial month[38].

[38]Price, David: Apple Arcade confirmed: Release date, price & games news, 2019. Available on: https://www.macworld.co.uk/news/iosapps/apple-arcade-3694110/ (Accessed: 20 September 2019)

3 Methodology

In this chapter, the overall methodological approach selected for this study is introduced and full details of the methods used to conduct the research are given. Moreover, the tools, procedures, and materials used to gather data, as well as the criteria used to select sources and participants are outlined. Finally, the applied method of data analysis is described, and the questions of credibility are discussed.

3.1 Exploratory Research Approach

The fundamental question of this study is, whether subscription-based services for video games are going to revolutionize the video game industry. In order to find an answer to this question, it is important to break down and analyse the question to determine what kind of data is needed and which methods of data collection are fit for the purpose of answering the research question. As previously discussed, the aim of this study is to gain further insight into the current state of the video game industry and its potential future regarding the upcoming shift in the way games are made and played, that might come along with these services. However, these services have not yet been launched and accordingly only insufficient information is currently available. Therefore, defined as a research used to explore a not clearly defined problem, the exploratory research approach has been considered to be the most suitable research approach for this study. Rather than giving conclusive results, it is conducted to gain an in-depth understanding of the existing issue and to identify problems that can be the focus for future research. Moreover, due to the flexible nature of this research approach, the researcher can adapt to changes as the research progresses, and even though it is a quite time consuming research method that has risks associated with it and requires patience, there are principally no fixed rules to carry out the research. Such a research usually generates qualitative data, nevertheless, in some instances, quantitative data can be generated by conducting surveys and experiments. In the case of this study though, a quantitative analysis is not suitable for the purpose of answering the research question, as it, according to Flick[39], excludes subjectivity. In contrary to that, qualitative research methods such as expert interviews allow for in-depth and

[39]Flick, Uwe: Qualitative Forschung: Theorie, Methoden, Anwendung in Psychologie und Sozialwissenschaften, 5th Edition, Hamburg, 2000, p. 195

further questioning of respondents based on their responses to a particular topic.

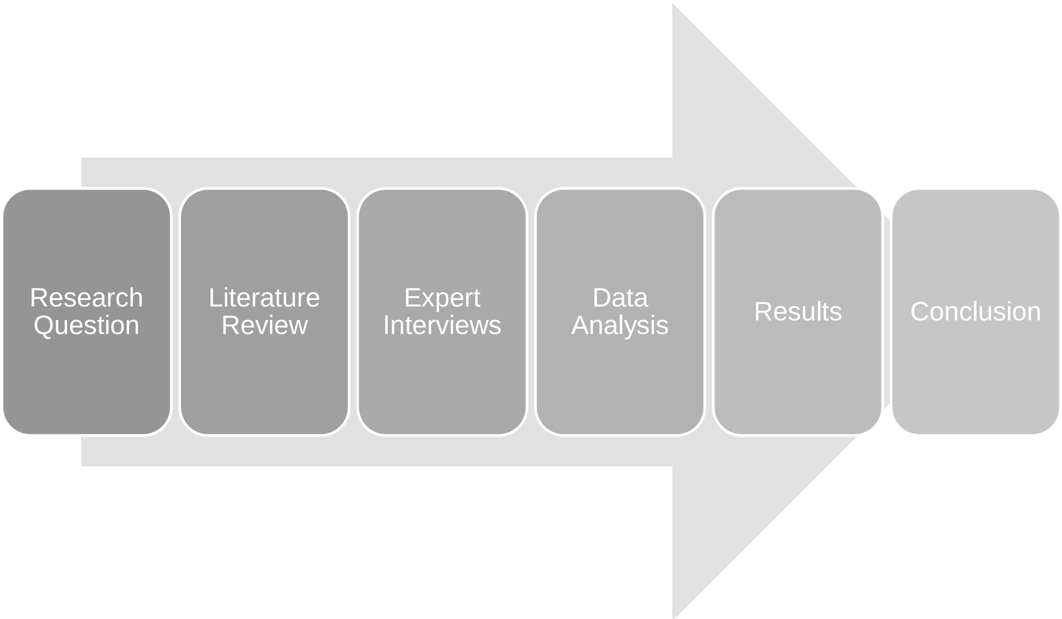

Figure 6: Methodological steps

The figure above illustrates the methodological steps of this study. First of all, the research question has been investigated in order to determine which data is needed. Based on the results, secondary data sources have been selected and reviewed. In the next step, interviews with video game industry experts have been conducted, and the qualitative data gained from these interviews has been analysed and discussed afterwards. Eventually, a final conclusion have been formulated, and by discussing why particular methods have been chosen and why other methods were not suitable for this study's objectives, the methodological choices have been evaluated and justified.

3.2 Secondary Research

In order to create a solid theoretical framework for this study, secondary data sources such as relevant books portraying the video game industry's history and economical evolution, recent market research reports, academic articles as well as articles written in online publications, and video game companies' web pages including their annual reports have been reviewed. Additionally, networking sites such as Reddit have been examined, and, interviews related to the investigated research question, discussions and other related videos have been watched. In the second chapter of the present paper, a general overview of the video game industry's current state is given as a result, presenting recent statistics and emerging trends, outlining the industry's structure, and describing its core business models. Moreover, subscription-based gaming is explained in particular, and certain upcoming video game subscription services are introduced in full detail.

3.3 Qualitative Expert Interviews

For the empirical part of this study, in order to gain in-depth understanding of the existing issue and identify problems that can be analysed in future researches, video game industry experts have been interviewed in a semi-structured way by asking open-ended questions. Since the study's purpose is to compare contents and differences of expert knowledge in the video game industry, the expert interview is used as a stand-alone method. According to Meuser and Nagel, unlike biographical interviews, here the interviewees are of less interest as a person than their capacities as experts for a certain field of activity, integrated not as a single case but as representing a group of specific experts[40]. Thereby, it is important to clarify what expert knowledge actually means. According to Flick, those persons, generally, employees of an organization with a specific function and a specific professional experience-based knowledge, who are particularly competent as authorities on a certain matter of facts, can be labelled as experts[41]. According to Gläser and Laudel, the following criteria must be taken into consideration when selecting experts.

Figure 7: Criteria for selecting experts (Gläser and Laudel, 2006)

[40]Meuser, Michael; Nagel, Ulrike: Handbuch Frauen- und Geschlechterforschung: Theorie, Methoden, Empirie, 3rd Edition, Wiesbaden, 2002, pp. 376 - 379
[41]Flick, Uwe: Qualitative Forschung: Theorie, Methoden, Anwendung in Psychologie und Sozialwissenschaften, 5th Edition, Hamburg, 2000, p. 197

3.3.1 Sampling

According to Kaiser, the sampling process requires a broad examination with the research field[42]. The first step in sampling is defining the sample through literature review on the basis of media reports, or in conversation with people who are familiar with the area of practice to determine who the relevant experts are[43]. In the case of this study, the interviewed experts were selected on the basis of recommendations from personal contacts who work in the video game industry, and also from contacted experts who suggested other experts as they perceived their own current state of knowledge on the investigated research topic inadequate. The selected experts were approached via social networking sites such as LinkedIn and Xing, as well as directly via email. Six out of 13 interview requests were accepted, and three experts were actually able to make time for an interview within the fixed timeframe. In order to guarantee the interviewees anonymity, names and company names are not provided in the present paper. Consequently, the interviewed experts are simply identified as E1, E2, and E3. In the following table, a rough overview of the interviewed experts is provided.

Expert	Position	Language
E1	Director of Business Development with a profound knowledge of the video game industry	German
E2	Chief Executive with deep knowledge of the video game industry	English
E3	Managing Director with a demonstrated history of working in the video game industry	English

Table 3: Overview of interviewed experts

3.3.2 Interview Guide

According to Flick, the experts' function in their field often leads to a certain time pressure if interviews are planned[44]. Therefore, it is crucial that the interviewer is able to determine the interview and the interviewee to the expertise of interest. In order to guide the conversation in a well-organized manner and gain information

[42]Kaiser, Robert: Qualitative Experteninterviews: Konzeptionelle Grundlagen und praktische Durchführung (Elemente der Politik), 1st Edition (Kindle), Wiesbaden, 2014, pp. 71 - 72
[43]Bogner, Alexander; Littig, Beate; Menz, Wolfgang: Interviews mit Experten: Eine praxisorientierte Einführung, Wiesbaden, 2014, p. 73
[44]Flick, Uwe: Qualitative Forschung: Theorie, Methoden, Anwendung in Psychologie und Sozialwissenschaften, 5th Edition, Hamburg, 2000, p. 197

specifically related to the study's purpose by excluding unproductive questions and topics, an interview guide has been prepared beforehand. In the following, the interview guide is presented in the form of a table. It is divided into four different subject areas related to the investigated research question, and includes an introductory question, followed by several in-depth questions, and a conclusionary question. Although the prepared questions do not have to be posed in a fixed predefined order, the questions in the guideline below are arranged in contextual alignment to enable a natural conversation flow.

Subject Areas	**Questions**
Introduction	Thank you for taking the time today to do this interview with me. First, I will give you a short overview of how we are going to proceed. As part of my master thesis I am going to ask you some questions about the impact of video game subscription services on the video game industry and the future of gaming. All of your answers will be used for the sole purpose of collecting data for my master thesis and will be kept confidential. The information will not be handed to any third parties and your identity will remain anonymous. I will record the interview, if you agree.
	Introducing the subject, explaining the process, and asking for permission to record the conversation
	The main question of this study is, whether subscription-based services for video games are going to revolutionize the video game industry. How would you intuitively answer this question?
	Question aims to find out to what extent the interviewed expert has already dealt with the investigated research question
From Device-Centric to Network	A dramatic shift in the way games are made and played is about to happen in the next years from now on. In your opinion, what are the opportunities, and

	what are the possible obstacles or threats that are coming along with this change?
	Question aims to find out about the expert's expectations and concerns regarding the potential change that might come along with subscription-based video game services
	What do you think will happen to the traditional console market?
	Question aims to find out whether consoles are more and more becoming obsolete in the near future, or remain indispensable
	Google enters the video game industry with their promising game streaming platform Stadia and they are talking about gaming for everyone. What is your opinion on that vision? And, do you think that it is implementable in the first place?
	Question aims to find out about the expert's point of view on subscription-based video game streaming services in making gaming accessible to everyone, and whether this idea is actually implementable in the present time, or if there is still a long way to go to make it possible
Video Game Subscription Services	What were actually the first thoughts you had in mind after Google announced Stadia at the GDC in march this year, and what are you thinking about it now?
	Question aims to find out about the expert's first impression about Google's upcoming service Stadia
	What are your thoughts on Google entering the gaming business in general?
	Question aims to find out about the expert's thoughts on Google entering the gaming business in general

	Against expectations, Google Stadia does not offer an ever-expanding Netflix-style library of video games but is rather comparable to Xbox Live Gold or PlayStation Plus, offering a subscription model that includes one free game per month alongside direct full game purchases and access to 4K video game streaming at 60 fps with HDR and 5.1 surround sound. Do you believe that this concept pays off, while having in mind that every single video game purchased on Stadia solely exists in the cloud?
	Question aims to find out what the expert thinks about Google's strategical approach
	Microsoft's Xbox brand has shifted from a console to a cross-platform service and its subscription service Game Pass is doing very well. Unlike Google, Microsoft seemingly focuses on content rather than technology. In your opinion, which comes first?
	Question aims to find out whether content or technology comes first in order to drive success in the long run
	Apple focuses on new and exclusive titles in order to drive success with its cross-platform video game subscription service Arcade, and stays away from the upcoming cloud gaming battle. Instead, Apple aims to extol the virtues of iOS as a gaming platform, which no doubt obtains a dual effect of signing gamers up to Arcade and shifting more phones and tablets. What do you think about this approach in comparison to other services?
	Question aims to find out about the expert's thoughts on Apple's strategical approach regarding Arcade and the fact that, unlike Google or Microsoft, Apple stays away from the upcoming cloud gaming battle

	Is there any other existing or upcoming video game subscription service that you would like to mention?
	Question aims to gain interesting suggestions from the expert regarding other video game subscription services of the same type as the ones discussed in this study
‘Netflix for Video Games’	Reportedly, Microsoft is working on their video game streaming service Project xCloud. Microsoft has not officially said anything about combining xCloud and their upgraded subscription service Game Pass Ultimate, but if that would be the case, they would become the ‘Netflix for video games’. What is your opinion on that term in particular and the concept behind it with regard to the video game industry?
	Question aims to figure out what the expert thinks about a so-called ‘Netflix for video games’, and what such a concept means for video game subscription services and the video game industry
	Do you think that the value of video games will decrease by offering them on a ‘Netflix-style’ gaming platform?
	Question aims to find out whether the expert thinks that a gaming platform in the style of Netflix has a negative impact on the value of video games in general
	A report from Bloomberg suggests that Apple will be dispersing revenue from its subscription fees based on playtime of individual titles. How would such a model affect a video game’s quality?
	Question aims to figure out what the consequences of a model where developers are payed based on playtime of individual titles are for a video game’s quality

	In your opinion, how should an ideal revenue model for a video game subscription service look like?
	Question aims to find out what the expert thinks is crucial for video game subscription revenue models, and to what extent the discussed services correspond to the expert's ideal concept of a revenue model for such a service
Future of Gaming	In your opinion, what other emerging trends will define the future of the video game industry?
	Question aims to gain new suggestions and ideas for further research on the future of the video game industry
	From your perspective, what will gaming be like in ten years from now?
	Question aims to find out about the expert's individual perspective regarding the future of gaming
Conclusion	Is there anything else you would like to add that has not been covered by the questions I have already posed?
	Question aims to gain further insights the expert personally regards as relevant in the context of this study

Table 4: Interview guide

3.3.3 Execution

The expert interviews were conducted in the period from July 22 to August 26, 2019, and carried out via Skype due to schedule urgencies and the whereabout of the interviewees, lasting between 25 to 35 minutes. Based on the interviewees' language preference, the interviews have been conducted either in German or English, and with the consent of the interviewees, the interviews have been recorded digitally.

3.3.4 Transcription

In order to ensure that the transcripts are free of interferences, unnecessary details or misdirecting comments to gain concrete data and valuable input, the recorded interviews have been manually transcribed non-verbatim by correcting grammatical mistakes, taking out utterances, pauses, slang, or emotional inflections. The transcripts are attached in the appendix, and since one interview has been conducted in German, a translation into English follows the respective transcript.

3.3.5 Qualitative Content Analysis

According to Mayring, the object of qualitative content analysis can be any kind of recorded communication[45]. However, unlike the term may indicate, qualitative content analysis does not only analyse the manifest content of the material, but rather aims to preserve the advantages of quantitative analysis for a more qualitative interpretation. Becker and Lißmann have differentiated two levels of content, namely themes and main ideas of the text as primary content, and context information as latent content[46]. Accordingly, the large amount of qualitative data gained from the interviews has to be transferred into measurable quantitative data, which consequently allows an analysis of the gathered data in a systematic way and assess the frequency of information. Therefore, a category system has been developed beforehand in order to assign each relevant information to a respective category. In order to structure the evaluation according to qualitative aspects, Mayring suggests nine analysis steps, namely: (1) determination of the material; (2) analysis of the situation; (3) formal characteristics of the material; (4) direction of the analysis; (5) theoretical differentiation of the question; (6) determination of the analysis techniques and the process model; (7) definition of the analysis units; (8) development of a category system; and (9) review of the category system for theories and material [47]. According to Mayring, the category system is ultimately the core element of qualitative content analysis[48]. The categories are created on

---

[45]Mayring, Philipp, Qualitative Inhaltsanalyse: Grundlagen und Techniken, 11th Edition, Weinheim, 2010, p. 11
[46]Mayring, Philipp: Qualitative Inhaltsanalyse (28 Absätze), 2000. Available at: https://www.ph-freiburg.de/fileadmin/dateien/fakultaet3/sozialwissenschaft/Quasus/Volltexte/2-00mayring-d_qualitativeInhaltsanalyse.pdf (Accessed: 7 July 2019)
[47]Mayring, Philipp, Qualitative Inhaltsanalyse: Grundlagen und Techniken, 11th Edition, Weinheim, 2010, p. 54
[48]Mayring, Philipp, supra, p. 61

the basis of the research question and the existing material. Paraphrasing and generalizing followed by reduction are the crucial steps that result in a consistent and useful category system[49]. In this study, the defined subject areas from the interview guide serve as main categories as they already divide the content into different textual paragraphs, and within the subject areas, sub-categories are used to bundle the interviewees' answers. In the following, the applied category system is presented in the form of a table, listing the main categories and the corresponding sub-categories.

Main Categories	**Sub-Categories**
Impact on the Video Game Industry	Expectations and Concerns
	Possible Opportunities and Threats
Video Game Subscription Services	Business Models
	Content vs. Technology
'Netflix for Video Games'	Value
	Implementation
Future of Gaming	From Device-Centric to Network
	Gaming for Everyone

Table 5: Category system for qualitative content analysis

3.4 Credibility

Due to the exploratory nature of this study, it is subjected to the questions of credibility, mainly in the area of validity, reliability and generalization. Validity refers to the fact that the findings presented in this paper are certainly what they seem to be. In order to ensure the validity of the research, multiple sources have been used to gather and verify obtained data and information. Reliability refers to the consistency of the results enabling the research to be reproduced while ensuring to gain the same results. The last characteristic that needs to be addressed is the generalization of the study. Since the investigated research question is focused on a specific industry, namely the video game industry, it cannot be concluded that the same changes and same trends are present in other industries as well, as this was not in scope of the research. Nevertheless, even though the present findings cannot be generalized, the research approach as well as the framework can be used widely and other researchers can apply them in other industries and make

[49]Mayring, Philipp, supra, p. 70

comparisons in the future. Therefore, even though general conclusions across industries cannot be drawn, the research contributes to the general understanding of the current state of the video game industry and its emerging trends and business models.

4 Results

In the following chapter, the qualitative data that has been gathered through expert interviews, as previously described, is presented and discussed in a clearly structured form, consisting of four main sections in total, whereby each section is subdivided into two specific subsections. Moreover, these findings are compared to those obtained from secondary sources of data. In order to guarantee the interviewees anonymity, names and company names are not provided in the following. Consequently, as already mentioned in the previous chapter of the present paper, the three interviewed experts are simply identified as E1, E2, and E3 in the following.

4.1 Impact on the Video Game Industry

The interviewed experts were asked to give a subjective assessment on the impact of video game subscription services on the video game industry from today's point of view. At this point, it is important to highlight once more that even though the classic subscription business model has been around for a long time in the video game industry, it is only very recently that the business model is taking off. Inspired by Netflix and other video streaming services, the video game industry seems to become the next battleground for online subscriptions. While Newzoo CEO Peter Warman anticipates a platform-agnostic future in which the only thing that will matter is which video game subscription services offer the best gaming experiences and content[50], Ubisoft co-founder and CEO Yves Guillemot confidently believes that these services are about to become the de facto way video games are made and played as this trend will continue to evolve and the technology regarding video game streaming will eventually improve, he states[51]. However, the video game industry experts that have been interviewed within the scope of this study were quite sceptical for that matter, whereby E1, despite some concerns regarding video game streaming, thinks that there is a chance that everything will focus on subscription services and video game streaming in the

[50] Newzoo: Free Global Game Market Report , 2019. Available at: https://resources.newzoo.com/hubfs/Reports/2019_Free_Global_Game_Market_Report.pdf?__hstc=133451409.fb0f216ec61dec35aa33d1887f4d789d.1563739102818.1566044258891.1566047560216.14&__hssc=133451409.4.1566047560216 (Accessed: 17 August 2019)

[51] Crecente, Brian: Ubisoft Believes Next Gen Is the Last for Consoles as Microsoft Looks Beyond Platforms, 2019. Available at: https://variety.com/2018/gaming/features/death-of-the-console-1202833926/ (Accessed on: 17 August 2019)

future[52]. E2, on the contrary, does not see a future where subscription-based services for video games are dominant, but rather thinks that these services will increasingly become an important part of gaming as an additive way of playing video games in a mixed overall environment[53], while E3 thinks that this emerging trend might eventually challenge the video game industry at some point in the future, however, he also clearly emphasises that it is still too soon to assess whether these subscription-based services have a big impact on the industry or not[54].

4.1.1 Expectations and Concerns

In the main, the interviewed experts anticipate an overall expansion of gaming through video game subscription services, and accordingly further growth of the video game market. But, in terms of video game streaming, they are concerned about bandwidth limitations and latency issues. Apart from that, they think that there is still a long way to go for these services to be fully accepted as a new segment in the gaming market. However, they expect that with further substantive enhancement and progressing development of emerging technologies such as 5G these issues will eventually be resolved over time. Also, in terms of gaming across all devices which is one of the main features of these video game subscription services, the experts question whether gamers really do want to play blockbuster video games on their smartphones or tablets in particular. In other words, they doubt that there is an actual need for playing these kind of video games on small smartphone or tablet screens.

4.1.2 Opportunities and Threats

In the eyes of the interviewed experts, the biggest opportunity that this emerging trend provides is that gaming becomes accessible to a completely new target group by ideally offering direct access to a library of selected video games, particularly in connection with video game streaming, as they address a wide range of potential video game consumers who, for example, do not own the latest hardware, or are often on the go. However, they fear that video game developers might come off badly within this concept, and therefore are forced to adapt and treat video games

[52]Appendix: Translation of Transcript 1: Interview with E1, 2019, p. 65
[53]Appendix: Transcript 2: Interview with E2, 2019, p. 72
[54]Appendix: Transcript 3: Interview with E3, 2019, p. 77

as a service to keep people playing to wring as much revenue from a single video game as possible. Consequently, these kind of video games will increasingly become standard, and as a result, there will eventually be no room for other type of video games.

4.2 Upcoming Video Game Subscription Services

The interviewed experts have been asked questions about the investigated upcoming video game subscription services from Microsoft, Google, and Apple concerning their respective business models and marketing strategies in particular. In the following, a comparative analysis of the internet giants' respective video game subscription services are given including the interviewed experts perspectives. They have been asked for ideas about what these services should put their focus on, and how they could possibly improve in order to achieve long-term profitability. Moreover, the interviewed experts have been asked for their opinion on whether content or technology comes first in order to drive long-term success.

4.2.1 Business Models

Each of the services in question is subscription-based in some way or other, but they significantly differ in terms of value. While Microsoft currently provides an ever-expanding library of video games with their upgraded Game Pass Ultimate for a monthly subscription fee of about $14,99, which, in the near future, will be most probably combined with video game streaming in the form of Project xCloud, Google's Stadia offers access to ideally 4K, 60 fps, HDR, sound-surround video game streaming across devices, and one free video game per month alongside direct full price purchases with its Pro subscription option for $9,99 per month. Apple builds on entirely new and exclusive video games with their cross-platform video game subscription service Arcade, and, unlike Microsoft and Google, Apple stays away from cloud gaming. Instead, it tries to extol the virtues of iOS as a gaming platform. The interviewed experts' opinions on each of these services are in some instances just as different as the services' business models, however, all three experts think that each of the respective services has to significantly improve in terms of value creation. As things currently stand, Microsoft's subscription service Game Pass has been relatively profitable for the company, but to constantly drive growth, an upgraded version and access to video game streaming is not enough, the interviewed experts state. Even though, they have a quite positive view on what Microsoft's video game subscription service currently has to offer in general, they are of the opinion that Microsoft has to create more outstanding exclusives in order to be able to compete with other emerging video game subscription services of the same type. Concerning Google, the experts are divided on Stadia. E1 regards Stadia's business model rather as a step backward as it unexpectedly does not offer an every-expanding library of video games but is rather comparable with an online storefront, and therefore, he thinks that gamers will not be big fans of it[55], whereas E2 is more sanguine about it in general. He emphasizes that Google even formed its own first-party studio to create exclusive titles, which he regards as a necessary requirement to become a significant player in the video game industry[56]. Also, he thinks that Stadia Pro is a good deal as it only costs $120 per year, which is the cost of two video games at full price, and it includes one free video game per month without having any hardware issues[57]. According to him, Stadia is especially very appealing to gamers who are often on the go, or simply do not own the required hardware[58]. E3, however, is, also not impressed by Stadia's business model. To him, Stadia sounds like just another online storefront, and he thinks that its 'no hardware' selling point is simply not enough[59]. Unlike E2, he does not believe that Stadia is a good deal for consumers as it costs twice as much as Xbox Live Gold or PlayStation Plus, he states[60]. Regarding to the fact that the video games purchased on Stadia only exist in the cloud and therefore cannot be downloaded, E3 is of the opinion that it does not really matter to consumers as long as the user experience is convenient[61]. E1, however, thinks that having the choice to stream or not to stream, and being able to play video games offline, if one prefers so, is of great importance[62]. Lastly, concerning Apple, except for E2, the experts are very sceptical towards Arcade, stating that they actually do not have a clue who Apple is trying to target with it. Moreover, E1 cannot imagine that a subscription service for premium mobile video games on expensive devices is appealing to mobile gamers who, according to him, are already more than content with their freemium games[63]. In other words, he does not see a need for Arcade. E2, by contrast, thinks that Arcade is an interesting

[55]Appendix: Translation of Transcript 1: Interview with E1, 2019, p. 67
[56]Appendix: Transcript 2: Interview with E2, 2019, p. 72
[57]Appendix: Transcript 2: Interview with E2, 2019, p. 73
[58]Appendix: Transcript 2: Interview with E2, 2019, p. 73
[59]Appendix: Transcript 3: Interview with E3, 2019, p. 78
[60]Appendix: Transcript 3: Interview with E3, 2019, p.78
[61]Appendix: Transcript 3: Interview with E3, 2019, p. 78
[62]Appendix: Translation of Transcript 1: Interview with E1, 2019, p. 70
[63]Appendix: Translation of Transcript 1: Interview with E1, 2019, pp. 68 - 69

concept for getting more attention and support for video game developers who create premium games on mobile[64]. Moreover, he emphasizes that the content Arcade provides is entirely new, and therefore it can become a good place for indie games[65].

4.2.2 Content vs. Technology

Even though Google created its own first-party game studio that will be creating exclusive video games for the upcoming platform, it apparently counts on technology at the moment, while Microsoft seems to put its focus on content first, and Apple entirely commits itself to new and exclusive content. When asking the interviewed experts for their opinion on whether content or technology comes first, all three have answered that, in the long run, content makes the significant difference in order to be drive success. At this point, E2 emphasizes that gaming is all about video games and not about having different devices to play them on[66]. To him, that is the very essence of gaming. Therefore, he thinks that the competition will not be defined by streaming but rather by who offers the best exclusive titles[67].

4.3 Netflix for Video Games

In the media, the term 'Netflix for video games' is often used to describe subscription services for video games, and people seemingly love the idea of an ever-expanding library of video games in the style of Netflix. However, based on the fact that nowadays there are tons of video streaming services like Netflix overwhelming consumers by fighting to get exclusive original content, E3 believes that such a model will not become the norm in the video game industry as gamers will find that it is impossible to play all the titles they want on just one of these services[68]. Not that platform exclusivity is anything new for the gaming industry, but, according to E3, in the case of video game subscription services, the fight for exclusives spread out among more and more services will eventually mean the downfall of subscription services for video games[69].

---

[64]Appendix: Transcript 2: Interview with E2, 2019, p. 74
[65]Appendix: Transcript 2: Interview with E2, 2019, p. 74
[66]Appendix: Transcript 2: Interview with E2, 2019, p. 73
[67]Appendix: Transcript 2: Interview with E2, 2019, p. 73
[68]Appendix: Transcript 3: Interview with E3, 2019, p. 78
[69]Appendix: Transcript 3: Interview with E3, 2019, pp. 78 - 79

4.3.1 Value Creation

Concerning value creation, the interviewed experts expressed concerns about several aspects of a Netflix-like model for video games, and they doubt that there is an actual need for an ever-expanding library of video games in the style of Netflix. According to E2, what gamers are asking for is a curated portfolio of good video games, not an overcrowded library[70].

4.3.2 Potential Risks

Dependant on what form future subscription services for video games take, E2 is concerned that a set-up like Netflix might pose a threat for developers in terms of discoverability for instance, particularly when the platform provider is also a content creator influencing the algorithm to its own advantage, and consequently putting small developers at a disadvantage[71]. Moreover, if developers are payed according to playtime of individual titles, the interviewed experts are afraid that video games constructed as engagement engines are preferred. Consequently, more finite experiences are at a disadvantage, the experts explain. While such a model would not necessarily have a negative effect on the quality of a video game as such, developers, so the experts, would increasingly feel forced to treat video games as a service to keep people play in order to gain as much revenue from a video game as possible.

4.4. Future of Gaming

In the course of the interviews, the experts have been asked to give some ideas of what they think gaming will look like in about ten years from today's point of view. Overall, it can be said that they have a rather cautious perspective, expecting that the situation will not be much more different than it is at the present time. However, E3 additionally pointed out the unpredictable nature of the video game industry, and therefore can very well imagine that unexpected things entirely change the industry overnight, thinking of how the invention of the smartphone, for example, and the emergence of the free-to-play model dramatically affected the video game industry[72].

---

[70]Appendix: Transcript 2: Interview with E2, 2019, p. 74
[71]Appendix: Transcript 2: Interview with E2, 2019, pp. 74 - 75
[72]Appendix: Transcript 3: Interview with E3, 2019, p. 80

4.4.1 From Device-Centric to Network

In an official interview, Ubisoft CEO Yves Guillemot said that video game consoles are more and more becoming obsolete, expecting that there will be one more generation of consoles, but the video game industry will move to a more ubiquitous approach afterward with less and less hardware as streaming will become more accessible to many consumers, he believes[73]. The interviewed experts, however, do not agree on that. They believe that consoles are by no means becoming obsolete, and that video game streaming will certainly become an important part of gaming as it will considerably evolve over time, but it will not replace consoles entirely, they state. E2, for instance, believes that these subscription-based video game services will, if anything, work as an addition to an already strong gaming line up, making references to Microsoft as it provides consumers different options to play video games, and presents Project xCloud as an additional technology rather than an individual service[74]. According to E1, consoles will by far not become obsolete in the future, but he thinks that they will possibly take an entirely different form. He imagines them to end up being integrated with services for environmental reasons, for instance. However, he strongly believes that less and less video games will be sold at physical storefronts[75].

4.4.2 Gaming for Everyone

When Google first introduced Stadia to public, they were talking about making gaming accessible for everyone with their subscription-based video game streaming service[76]. The interviewed experts have been asked to expand on that vision particularly in terms of implementation, and their answers to this questions were quite similar. All things considered, they do not think that these kind of services are able to provide a similar experience to a wide range of users as consoles or PCs primarily due to the current internet situation in particular. Therefore, they think that there is still a long way to go for Stadia before becoming a system that is properly working for everyone in the first place. Consequently, the

---

[73]Gurwin, Gabe: Ubisoft CEO thinks next generation of consoles will be the last, 2019. Available at: https://www.digitaltrends.com/gaming/ubisoft-ceo-next-game-consoles-will-be-last/ (Accessed: 20 August 2019)

[74]Appendix: Transcript 2: Interview with E2, 2019, p. 72

[75]Appendix: Translation of Transcript 1: Interview with E1, 2019, p. 70

[76]Smith, Matthew S.: Google Stadia's platform for everyone promise is already broken, 2019. Available at: https://www.digitaltrends.com/gaming/google-stadia-not-a-platform-for-everyone/ (Accessed: 20 August 2019)

same applies to other upcoming video game subscription services combined with streaming as they completely rely on the internet, and do not work without a stable connection.

5 Conclusion

To sum up, the video game industry is a dynamic and constantly changing industry. As already mentioned, the overall market value is expected to grow further in the coming years as video games are becoming more and more accessible in a number of ways. Moreover, an increase in the overall demand for video games is expected as new consumer groups enter the ecosystem, and more and more large companies enter the business. It can be said that the video game industry is in a period of transition, including, inter alia, the upcoming release of next-generation consoles. Besides, video game subscription services such as Apple Arcade, Xbox Game Pass and PlayStation Now are undergoing an unstoppable boom in popularity. In the present paper, the question of whether these services are the future of gaming has been examined to the greatest possible extent. As already mentioned in the introduction, this exploratory study aims to provide further insight into the current state of the video game industry and its potential future regarding the upcoming shift in the way video games are made and played, that might come along with the rise of video game subscription services. Unlike the title of the present paper may indicate, the results show that the classic subscription model is definitely not a new business model in the video game industry, yet, in the form of subscription-based video game services, the business model is increasingly becoming popular as more and more companies are beginning to implement their own video game subscription services these days, be it console manufacturers such as Sony and Microsoft, large technology companies like Google and Apple, or even individual publishers such as EA or Ubisoft, for example. Alternatively to the classical approach of purchasing a video game, they provide a system where consumers spend significantly less money per month for a wide variety of selected video games on subscription base. At first glance, this may sound like a good deal, however, when examined more closely, in the long term, from the consumer's point of view, such a system may not necessarily be as simple and inexpensive as it seems. When talking of a platform-agnostic future in which video game subscription services are the norm, from today's point of view with regard to what is currently happening in the film and television industry due to Netflix and other subscription-based video streaming services, there are a few major issues to be concerned of in terms of platform exclusivity in particular as exclusive content is considered to be the main selling point of these services, and over time, the competition and greediness of the companies might eventually mean the downfall of subscription services for video games as described in the previous chapter.

Netflix has changed how consumers access film and TV, but by the time, tons of video streaming services like Netflix emerged, overwhelming consumers by fighting each other to get exclusive original content. For consumers this means that they are somehow forced to subscribe to various services to have access to most of the video games they want to play. The advantage here is that they ideally have direct access to the latest content and the possibility to check out various high-priced video games without having to purchase them. Moreover, particularly in connection with video game streaming, these services may attract video game consumers who prefer free-to-play or discounted titles and do not necessarily spend money on hardware. As presented in the second chapter of the present paper, this type of gamers may, according to Newzoo, be potential consumers of subscription-based video game streaming platforms in the form of Google Stadia or Microsoft Project xCloud. However, since these services have not launched yet, further research at a later stage is needed to be able to conclusively determine whether subscription-based gaming as a whole becomes an integral way or remains an alternative secondary method of playing video games. Based on the study's results though, it can initially be concluded that these services will certainly change the dynamics of gaming at some point in the future as internet technology improves over time, but for now, regardless of what the media says, one can hardly talk about them becoming a dominant way of playing video games due to bandwidth limitations and latency issues. Having said that, there is still a long way to go for these services to be fully accepted as a new segment in the gaming market. It can be assumed that subscription-based gaming services will embrace the future of gaming, but will not pose an immediate threat to established powers in the video game industry. However, the findings of this study have to be seen in light of some limitations. As the research involved interviewing certain video game industry experts, it faced the problem of having limited access to these experts. The majority of the experts who have been contacted in the course of this study were either unwilling or, due to scheduling reasons, unavailable to be interviewed, some have entirely ignored the interview request, and some, as already mentioned above, perceived their current state of knowledge on the investigated research question inadequate. Indeed, finding the 'right' experts has turned out to be quite difficult in practice. Nonetheless, despite this limitation, the expert interview as qualitative data collection method has been proven effective. The experts' perceptions based on their profound and deep knowledge on the video game industry have been a valuable input for this exploratory study, which aims to serve as a foundation for identifying future research on the impact of subscription-based gaming services on the video game industry, and the future of gaming. Alternatively, focus group discussions could have been applied as well within this study. However, focus groups are quite time-consuming and usually result in mountains of data, and due to this study's limited timeframe and resources, this method has been regarded inapplicable at present, but it is suggested as the next step in order to gather more in-depth data beyond the perceptions of the interviewed video game industry's experts. In order to better understand the implications of these results, future studies could, inter alia, address the impact of video game subscription services on game development. Who profits how much? Will game developers be payed beforehand or based on playtime of individual titles? What are the consequences of the latter? Even though the interviewed experts tried to find answers to these questions within this study, there is still a big question mark over these particular aspects of subscription-based gaming as only insufficient insight is provided at the present time.

Bibliography

Adroit Market Research (2019): Rising Popularity Of Social Networks Gaming To Drive The Virtual Goods Market At A CAGR Of 22.3%. Available at: https://www.adroitmarketresearch.com/press-release/virtual-goods-market (Accessed: 19 July 2019)

Alexander, Julia (2019): E3 proved that video game publishers want to become Netflix. Available at: https://www.theverge.com/2019/6/13/18677905/e3-2019-xbox-ubisoft-square-enix-google-stadia-phil-spencer (Accessed: 7 August 2019)

Apple Website (2019): Apple introduces Apple Arcade. Available at: https://www.apple.com/gw/newsroom/2019/03/apple-introduces-apple-arcade-the-worlds-first-game-subscription-service-for-mobile-desktop-and-the-living-room/ (Accessed: 23 July 2019)

Arrambide, Karina (2018): Games as a Service – the model of Microtransactions. Available at: https://medium.com/@hcigamesgroup/games-as-a-service-the-model-of-microtransactions-1a0e1e847119 (Accessed: 19 July 2019)

Bailey, Dustin (2018): With $4.3 billion in sales, 2017 was Steam's biggest year yet. Available at: https://www.pcgamesn.com/steam-revenue-2017 (Accessed: 19 July 2019)

Bandai Namco (2019): Consolidated Financial Results. Available at: https://www.bandainamco.co.jp/cgi-bin/releases/index.cgi/file/view/9314?entry_id=6244 (Accessed: 17 July 2019)

Bogner, Alexander; Littig, Beate; Menz, Wolfgang (2014): Interviews mit Experten: Eine praxisorientierte Einführung, Wiesbaden, Germany: Springer VS

Business Wire (2010): World of Warcraft Subscriber Base Reaches 12 Million Worldwide. Available at: https://www.businesswire.com/news/home/20101007005648/en (Accessed: 20 July 2019)

Callaham, John (2019): Microsoft's Project xCloud: Everything we know so far. Available at: https://www.androidauthority.com/microsoft-project-xcloud-2-915999/ (Accessed: 23 July 2019)

Crecente, Brian (2019): Ubisoft Believes Next Gen Is the Last for Consoles as Microsoft Looks Beyond Platforms. Available at:

https://variety.com/2018/gaming/features/death-of-the-console-1202833926/ (Accessed on: 17 August 2019)

Doronichev, Andrey (2019): Hi, I'm Andrey Doronichev and I'm the Director of Product for Stadia here at Google! AMA. Available at: https://www.reddit.com/r/Stadia/comments/ceuy4w/hi_im_andrey_doronichev_and_im_the_director_of/ (Accessed: 21 July 2019)

Edwards, Cliff (2013): Valve Lines Up Console Partners in Challenge to Microsoft, Sony. Available at: https://www.bloomberg.com/news/articles/2013-11-04/valve-lines-up-console-partners-in-challenge-to-microsoft-sony (Accessed: 19 July 2019)

Ely, Jeff (2009): The Economics of Pinball. Available at: https://cheaptalk.org/2009/11/17/the-economics-of-pinball/ (Accessed: 17 July 2019)

Flick, Uwe (2000): Qualitative Forschung: Theorie, Methoden, Anwendung in Psychologie und Sozialwissenschaften, 5th Edition, Hamburg, Germany: Rowohlt Verlag

Gilbert, Ben (2019): The world's biggest video game retailer GameStop is dying. Available at: https://www.businessinsider.de/gamestop-worlds-biggest-video-game-retailer-decline-explained-2019-7?r=US&IR=T (Accessed: 7 August 2019)

Google Website (2019): FAQ zu Stadia. Available at: https://support.google.com/stadia/answer/9338946?hl=de (Accessed: 21 July 2019)

Gurwin, Gabe (2019): Microsoft's Project Scarlett: Everything we know about the next-gen game console. Available at: https://www.digitaltrends.com/gaming/xbox-scarlett-rumor-roundup/ (Accessed 23 July 2019)

Gurwin, Gabe (2019): Ubisoft CEO thinks next generation of consoles will be the last. Available at: https://www.digitaltrends.com/gaming/ubisoft-ceo-next-game-consoles-will-be-last/ (Accessed: 20 August 2019)

Hart, Casey B. (2017): Evolution and Social Impact of Video Game Economics (Studies in New Media), Lanham, Maryland: Lexington Books

Kaiser, Robert (2014): Qualitative Experteninterviews: Konzeptionelle Grundlagen und praktische Durchführung (Elemente der Politik), Wiesbaden, Germany: Springer VS

Kenton, Will (2019): Razor-Razorblade Model. Available at: https://www.investopedia.com/terms/r/razor-razorblademodel.asp (Accessed: 17 July 2019)

Kerr, Aphra (2006): The Business and Culture of Digital Games: Gamework/Gameplay, Thousand Oaks, California: SAGE Publications Ltd

Marchand, Andre; Hennig-Thurau, Thorsten (2013): Value Creation in the Video Game Industry: Industry Economics, Consumer Benefits, and Research Opportunities. Available at: https://www.researchgate.net/publication/255995598_Value_Creation_in_the_Video_Game_Industry_Industry_Economics_Consumer_Benefits_and_Research_Opportunities/link/5a5dc4aa0f7e9b4f783a878b/download (Accessed: 19 July 2019)

Mayring, Philipp (2000): Qualitative Inhaltsanalyse (28 Absätze). Available at: https://www.ph-freiburg.de/fileadmin/dateien/fakultaet3/sozialwissenschaft/Quasus/Volltexte/2-00mayring-d_qualitativeInhaltsanalyse.pdf (Accessed: 7 July 2019)

Mayring, Philipp (2010): Qualitative Inhaltsanalyse: Grundlagen und Techniken, 11th Edition, Weinheim, Germany: Beltz Verlagsgruppe

Meuser, Michael; Nagel, Ulrike (1991): Handbuch Frauen- und Geschlechterforschung: Theorie, Methoden, Empirie, 3rd Edition, Wiesbaden, Germany: VS Verlag für Sozialwissenschaften

Miller, Chance (2019): Apple announces 'Apple Arcade' game subscription service through App Store. Available at: https://9to5mac.com/2019/03/25/apple-game-subscription-bundle/ (Accessed: 23 July 2019)

Newzoo (2019): Free Global Game Market Report. Available at: https://resources.newzoo.com/hubfs/Reports/2019_Free_Global_Game_Market_Report.pdf?__hstc=133451409.fb0f216ec61dec35aa33d1887f4d789d.1563739102818.1566044258891.1566047560216.14&__hssc=133451409.4.1566047560216 (Accessed: 10 July 2019)

Newzoo (2019): Infographics. Available at: https://newzoo.com/insights/infographics/ (Accessed: 10 July 2019)

Newzoo (2019): Introducing Newzoo's Gamer Segmentation: The Key to Understanding, Quantifying, and Reaching the New Era of Game Enthusiasts. Available at: https://newzoo.com/news/introducing-newzoos-gamer-segmentation-the-key-to-understanding-quantifying-and-reaching-game-enthusiasts-across-the-world/ (Accessed: 13 July 2019)

Newzoo (2019): The Global Games Market Will Generate $152.1 Billion in 2019 as the U.S. Overtakes China as the Biggest Market. Available at: https://newzoo.com/insights/articles/the-global-games-market-will-generate-152-1-billion-in-2019-as-the-u-s-overtakes-china-as-the-biggest-market/ (Accessed: 10 July 2019)

Ovans, Andrea (2019): What is a Business Model. Available at: https://hbr.org/2015/01/what-is-a-business-model (Accessed: 16 July 2019)

Paulsen, Nina; Klöß, Dr. Sebastian (2019): Mobil und flexibel: Die Gaming-Trends 2019. Available at: https://www.bitkom.org/Presse/Presseinformation/Mobil-und-flexibel-Die-Gaming-Trends-2019 (Accessed: 10 July 2019)

Price, David (2019): Apple Arcade confirmed: Release date, price & games news. Available on: https://www.macworld.co.uk/news/iosapps/apple-arcade-3694110/ (Accessed: 20 September 2019)

Reseigh-Lincoln, Dom; Boyle, Emma; Fitzsimmons, Michelle (2018): E3 2018: all the announcements from gaming's biggest show. Available at: https://www.techradar.com/news/e3-electronic-entertainment-expo (Accessed 21 July 2019)

Shaban, Hamza (2019): Amazon reportedly developing a subscription video game streaming service. Available at: https://www.washingtonpost.com/technology/2019/01/11/amazon-reportedly-developing-subscription-video-game-streaming-service/ (Accessed: 7 August 2019)

Schilling, Melissa (2012): Microsoft's Xbox. Available at: https://www.academia.edu/17729684/Microsofts_Xbox (Accessed: 17 July 2019)

Schoon, Ben (2019): Google Stadia will add Uplay+ in 2020 w/ unlimited access to Ubisoft games. Available at: https://9to5google.com/2019/06/10/google-stadia-uplay-ubisoft-subscription/ (Accessed: 21 July 2019)

Smith, Matthew S. (2019): Google Stadia's platform for everyone promise is already broken. Available at: https://www.digitaltrends.com/gaming/google-stadia-not-a-platform-for-everyone/ (Accessed: 20 August 2019)

Stanton, Richard (2015): A Brief History of Video Games, London, Philadelphia: Robinson

Statista (2015): Anzahl der Abonnenten von World of Warcraft bis Q3 2015. Available at: https://de.statista.com/statistik/daten/studie/208146/umfrage/anzahl-der-abonnenten-von-world-of-warcraft/ (Accessed: 20 July 2019)

Statista (2019): Number of Xbox Live MAU Q1 2016 - Q3 2019. Available at: https://www.statista.com/statistics/531063/xbox-live-mau-number/ (Accessed: 19 July 2019)

SuperData Research (2012): Monetization still a four letter word. Available at: https://www.superdataresearch.com/monetization-is-a-four-letter-word/ (Accessed: 19 July 2019)

SuperData Research (2019): Gaming Subscription Services Report. Available at: https://www.superdataresearch.com/gaming-subscription/ (Accessed: 20 July 2019)

Tezhik, Gregory (2016): Understanding the Transforming Revenue Models in the Games Industry, Saarbrucken, Germany: LAP LAMBERT Academic Publishing

Thubron, Rob (2018): Over half of Activision Blizzard's $7.16 billion yearly revenue came from microtransactions. Available at: https://www.techspot.com/news/73230-over-half-activision-blizzard-716-billion-yearly-revenue.html (Accessed: 19 July 2019)

Van Dreunen, Joost (2011): A Business History of Video Games: Revenue Models from 1980 to Today. Available at: https://www.yumpu.com/en/document/read/26908617/a-business-history-of-video-games-revenue-models-superdata- (Accessed: 17 July 2019)

Vogel, Harold L. (2007): Entertainment Industry Economics: A Guide for Financial Analysis, 7th Edition, Cambridge, New York: Cambridge University Press

Warren, Tom (2019): Apple Arcade is a new game subscription for iOS, Mac, and Apple TV. Available at: https://www.theverge.com/2019/3/25/18280589/apple-arcade-gaming-subscription-release-date-pricing-features (Accessed: 23 July 2019)

Webb, Kevin (2019): Microsoft, Sony, and Google are investing in subscriptions and streaming to give gamers more choice – but the real challenge is changing the way people play. Available at: https://www.businessinsider.de/apple-arcade-google-stadia-video-game-subscription-boom-2019-7?r=US&IR=T (Accessed: 7 August 2019)

Webster, Andrew (2019): Apple Arcade has game developers excited, but questions remain. Available at: https://www.theverge.com/2019/3/26/18282134/apple-arcade-game-developer-reaction-excitement-caution (Accessed: 23 July 2019)

Zackariasson, Peter; Wilson, Timothy L. (2012): The Video Game Industry: Formation, Present State and Future, New York, New York: Routledge

Appendix

A1: Transcripts of Expert Interviews

A2: Affidavit

A1: Transcripts of Expert Interviews

T1: Interview with E1

Interviewer: Vielen Dank, dass Sie sich heute die Zeit genommen haben, dieses Interview mit mir zu führen. Zunächst gebe ich Ihnen einen kurzen Überblick über die Vorgehensweise. Im Rahmen meiner Masterarbeit, werde ich Ihnen einige Fragen zu den Auswirkungen von Abonnement-Dienste für Videospiele auf die Videospielbranche und die Zukunft der Videospielbranche im Allgemeinen stellen. Alle Ihre Antworten werden ausschließlich zwecks Datenerhebung für meine Masterarbeit verwendet und vertraulich behandelt. Die Informationen werden nicht an Dritte weitergegeben und Ihre Identität bleibt anonym. Sind sie damit einverstanden, dass das Gespräch aufgezeichnet wird?

E1: Ja.

Interviewer: In meiner Masterarbeit geht es hauptsächlich um die Frage, ob Abo-Dienste für Videospiele die Videospielbranche in den nächsten Jahren von Grund auf verändern. Wie würden Sie diese Frage intuitiv beantworten?

E1: Ich glaube, dass so ziemlich das Gleiche, das beispielsweise mit Film und Musik passiert ist, auch hier passieren wird. Es will sich einfach niemand mehr Film- und Serienboxen oder CDs holen und sich die Wohnung vollstellen damit, wenn man alles auch einfach streamen kann. Und ich glaube, genauso ist das nun auch mit Videospielen. Es wird immer Leute geben, die welche sammeln wollen und die auch gerne welche im Regal stehen haben. Und, es gibt immer noch Leute, die sich ständig jammern, warum alles nur noch digital ist, aber letztlich glaube ich, dass das nur sehr wenige Leute sind heutzutage. Daher denke ich, dass sich bald tatsächlich einfach alles auf Streamen und Abo-Dienste konzentrieren wird. Dabei glaube ich aber, dass keiner dann zehn verschiedene Streamingdienste abonnieren würde, sondern, dass sich das irgendwann auf zwei bis drei große Player konzentrieren wird.

Interviewer: Welche Chancen und mögliche Hindernisse oder Bedrohungen ergeben sich Ihrer Meinung nach mit dem Wandel in der Art und Weise, wie Spiele entwickelt und gespielt werden?

E1: Wir glauben ja immer alle, dass wir in der westlichen Welt so hervorragendes Internet haben und wie verlässlich das ist. Daran glaube ich tatsächlich gar nicht so. Was das angeht, da denke ich, dass noch ein weiter Weg zu gehen ist. Asien hingegen hat da deutlich weniger Probleme, weil relativ viele Schwellenländer es direkt richtig machen. Sobald sie ein bisschen zu Wohlstand kommen, bauen sie direkt die richtigen Leitungen, mit denen sowas dann auch tatsächlich möglich wäre. Ich glaube, die Bandbreite ist aktuell einer der größten Hindernisse. Davon abgesehen aber, wird Gaming dadurch plötzlich einer ganz neuen Zielgruppe zugänglich gemacht und darin sehe ich die größte Chance. Leute, die vielleicht keine entsprechende Hardware oder einen Internetanschluss zuhause haben, oder sehr viel unterwegs sind, könnten dann relativ unproblematisch Spiele, bei denen das vorher eben nicht möglich gewesen wäre, sogar von unterwegs aus und auf leistungsschwachen PCs, Tablets und sogar auf Smartphones spielen.

Interviewer: Was wird Ihrer Meinung nach dann mit dem traditionellen Konsolenmarkt passieren? Kann man sagen, dass Konsolen überholt sind?

E1: Vielleicht noch nicht. Also ich glaube nicht, dass sie aktuell überholt sind, weil noch viele Leute gerne ein Gerät unter ihrem Fernseher zuhause haben, aber wenn ich jetzt mal so zehn Jahre in die Zukunft schauen müsste, dann glaube ich, werden Konsolen nur noch wie beispielsweise Apps auf Fernseher laufen, so wie es eben die Netflix App auf dem Smart-TV gibt, wird es irgendwann vielleicht beispielsweise eine Xbox App geben und das wird dann vermutlich einfach nur ein Chip sein, der irgendwo im Fernseher verbaut ist. Das könnte ich mir gut vorstellen, auch allein schon um die Umwelt zu schonen und nicht kontinuierlich neue Boxen aus Plastik zu bauen, die dann auch wieder recycelt werden müssen.

Interviewer: Google steigt mit seiner vielversprechenden Spieleplattform Google Stadia in die Videospielbranche ein und spricht von einer Spieleplattform für jedermann. Was ist Ihre Meinung zu dieser Vision? Glauben Sie, dass sie umsetzbar ist?

E1: Leute, die vorher nicht die Möglichkeit gehabt haben, Videospiele zu spielen, werden sie nun spielen können, aber die Frage ist eigentlich, ob sie das so denn auch wollen? Und, wollen Gamer wirklich auf diese Art Blockbuster Games spielen, also auf ihren Smartphones oder Tablets? Da mache ich mir zunächst einmal wie gesagt Gedanken, was die Bandbreite angeht, also, wer kann dann überhaupt tatsächlich spielen. Auch das Geschäftsmodell empfinde ich dahingehend eher als ein Schritt zurück als nach vorne. Google macht das, weil das eines der wenigen Unternehmen ist, die das auch tatsächlich können, die die Architektur und das Geld haben, aber ob das dann wirklich so funktioniert wie gewünscht und ob die damit die richtigen Leute ansprechen, das kann ich mir momentan noch nicht so gut vorstellen.

Interviewer: Was halten Sie von dem Einstieg von Google in das Gaming-Geschäft im Allgemeinen?

E1: Ich glaube, so ein großer Konzern wie Google kann es sich nicht erlauben, nicht in das Gaming-Geschäft einzusteigen. Die viel zitierte Zahl des Umsatzwertes der Videospielbranche weltweit ist so hoch wie der von der Film- und Musikbranche zusammen, und wenn man schon ein Technologiekonzern ist, der was Serverarchitektur angeht so breit aufgestellt ist, dann ergibt das durchaus Sinn, dass man versucht da reinzukommen.

Interviewer: Entgegen den Erwartungen bietet Google Stadia jedoch keine ständig wachsende ‚Netflix-ähnliche' Bibliothek von Videospielen an, sondern ist eher mit Xbox Live Gold oder PlayStation Plus vergleichbar. Das Abonnement umfasst ein kostenloses Spiel pro Monat sowie den direkten Kauf von Videospiele zum vollen Preis und den Zugriff auf Game Streaming mit 4K, 60 FPS, HDR und Surround-Sound. Glauben Sie, dass sich dieses Konzept auszahlt, wenn man dabei bedenkt, dass sich die Spiele ausschließlich in der Cloud befinden und man ohne Stadia quasi keinen Zugriff auf sie hat?

E1: Ich kann da nur von mir persönlich reden und ich glaube, dass es vielen auch so geht. Wenn ich die Wahl habe, etwa 70 € für ein Spiel auszugeben, das ich jederzeit spielen kann, auch wenn ich offline bin, oder eins, das ich nur dann spielen kann, wenn ich online bin, dann ist mir eigentlich schon relativ klar, zu welchem Spiel ich greifen würde. Dann würde ich auf jeden Fall das Spiel nehmen, dass nicht gestreamt wird, oder besser gesagt, nicht unbedingt gestreamt werden muss. Deswegen glaube ich, dass das ein großer Rückschritt ist bei diesem Modell und Gamer sind sehr laut und sehr leidenschaftlich. Ich glaube nicht, dass sie große Fans davon sein werden.

Interviewer: Der Abo-Service Uplay+ von Ubisoft wird ab 2020 auf Google Stadia integriert sein. Man müsse beide Dienste separat bezahlen, hätte aber Zugang zu Streaming und zu einer Bibliothek an Videospielen. Was halten Sie davon?

E1: Ich glaube, wen auch immer Google fragen würde, ob das jetzt EA mit Access oder Ubisoft mit ihrem Service ist, ich glaube, da würde keiner bei einem Unternehmen wie Google ablehnen. Von daher sehe ich das nicht als große Leistung an, wenn es keine gewisse Ersparnis bei einem kombinierten Abo gibt. Ich würde mich dann ansonsten eher für einen Dienst entscheiden, bei dem das schon direkt mitintegriert ist, und der mich die Spiele auch herunterladen lässt.

Interviewer: Im Gegensatz zu Google konzentriert sich Microsoft mit der Weiterentwicklung ihres Abo-Dienstes Game Pass offensichtlich erstmal eher auf Inhalt als auf Technologie. Was steht Ihrer Meinung nach an erster Stelle?

E1: Bei solchen Modellen, da finde ich, dass zum einen Transparenz an vorderster Stelle stehen sollte, also ein Preis, bei dem man auch weiß, was man bekommt, und man möglichst frühzeitig erfährt, welche Titel in den Katalog kommen und welche wieder rausfliegen. Das ist eine relativ wichtige Sache, denke ich. Und, dass man eben die Wahl hat, wie man spielen möchte. Bei dem Game Pass kann man die Spiele alternativ auch direkt kaufen. Man kann also zu jeder Zeit einfach selber entscheiden, ob es sich lohnt. Ich glaube, dass ist so das Wichtigste bei einem Abo-Modell, und bei Stadia sehe ich das leider nicht so. Mit nur einem kostenlosen Spiel im Monat ist das relativ schwierig, finde mich, wenn man dabei bedenkt, dass man auch nicht genau weiß, welche Spiele das dann sein werden. Es stellt sich auch die Frage, ob Google selbst Spiele entwickelt, weil das weiß man aktuell noch gar nicht so genau. Bei Microsoft hingegen kann man sich eben darauf verlassen, dass alle First-Party-Titel, also alle Microsoft Games eben auch direkt in den Game Pass kommen und man sich eben darauf verlassen kann, dass in regelmäßigen Abständen Vollpreis-Titel, die sonst 70 € kosten, mit in den Game Pass kommen. Aber um jetzt explizit auf die Frage zu antworten, ob Technologie oder Inhalt an erster Stelle stehen sollte, da denke ich, dass beides relativ gleichwertig wichtig ist, wobei auf langfristiger Sicht der Inhalt, also die Spiele an sich, eben schon den entscheidenden Unterschied macht.

Interviewer: Apple konzentriert sich auf neue und exklusive Titel, um mit seinem plattformübergreifenden Videospiel-Abonnementdienst Arcade Erfolg zu erzielen und hält sich von der bevorstehenden Cloud-Gaming-Schlacht fern. Stattdessen zielt Apple offensichtlich darauf ab, die Vorzüge von iOS als Spieleplattform zu preisen. Dies hat zweifellos den doppelten Effekt, dass sich idealerweise Gamer von Arcade angezogen, mehr Geräte von Apple anschaffen. Was halten Sie von diesem Ansatz im Vergleich zu dem der anderen Dienste?

E1: Ich glaube, Apple macht relativ viel Geld mit seiner Hardware und den anderen Services, und auch mit den Spielen, die damit verbunden sind, aber um mich mal so ausdrücken, dass es nicht so klingt, als ob ich sagen wollen würde, dass Leute, die nur auf ihren Smartphones spielen, keine echten Gamer sind, aber ich glaube eben, dass ein Großteil dieser Leute sich nicht so sehr für Spiele-

Flatrates oder Abonnement-Dienste interessieren, sondern einfach nur ein bisschen Candy Crush spielen wollen. Ob die also jetzt wirklich ein Abo für Videospiele abschließen würden, kann ich mir ehrlichgesagt nicht so gut vorstellen. Ich bin aber auch schon etwas älter und weiß nicht, wie das so mit den 16-Jährigen heutzutage ausschaut, aber da stellt sich mir dann die Frage, wie viele 16-Jährige denn überhaupt im Besitz von 1000 € Devices sind. Ich glaube, um wirklich Core-Gamer zu erreichen, muss Apple das anders machen. Ich glaube nicht, dass da ein Abo-Modell auf sehr teuren Endgeräten wirklich ausreicht.

Interviewer: Berichten zufolge arbeitet Microsoft an seinem Videospiel-Streaming-Dienst Project xCloud. Microsoft hat offiziell nichts über die Verknüpfung von xCloud und dem neuen Abonnementdienst Game Pass Ultimate gesagt, aber wenn dies dann der Fall sein sollte, wäre xCloud ein ‚Netflix für Videospiele'. Was halten Sie persönlich von diesem Begriff und dem Konzept dahinter im Hinblick auf die Videospielbranche?

E1: Also der Begriff ‚Netflix für Videospiele' ist meiner Meinung nach lediglich guter Marketing Talk, weil jeder so direkt weiß, was gemeint ist, aber mehr sehe ich dahinter nicht wirklich.

Interviewer: Glauben Sie aber, dass der Wert von Videospiele sinkt, wenn sie auf einer Spieleplattform im ‚Netflix-Stil' angeboten werden?

E1: Ich glaube, der Wert, den er bei Usern hat, würde dadurch nicht unbedingt sinken, also insgesamt der Wert, weil ich glaube, man wird dadurch relativ viele Spiele ausprobieren können, die man sonst nie ausprobiert hätte. Die Frage ist aber, ob bei den hohen Summen, die bei der Entwicklung von Spielen entstehen, sich das dann noch für die Entwickler lohnt, da sehe ich ein großes Fragezeichen.

Interviewer: Wie würde sich Ihrer Meinung nach ein Modell, bei dem die Einnahmen aus den Abonnementgebühren basierend auf der Spielzeit einzelner Titel verteilt werden, auf die Qualität eines Videospiels auswirken?

E1: Auch wenn ich das bei Spotify beispielsweise eigentlich fair finde, dass Musiklabels anhand von Marktanteilen pro Woche ausbezahlt werden, glaube ich nicht, dass das bei Spielen besonders sinnvoll wäre, weil dann niemand mehr einen knackigen Shooter entwickeln würde, sondern versuchen Games-as-a-Service zu bauen und wir hätten irgendwann dann nur noch Games-as-a-Service und ich weiß nicht, ob das der richtige Weg ist.

Interviewer: Wie würde Ihrer Meinung nach ein ideales Einnahmemodell für ein Videospielabonnement aussehen?

E1: Ich glaube nicht, dass das richtige Modell besonders günstig sein muss. Ich glaube, dass das richtige Modell die richtigen Inhalte bieten muss. Das ist glaube ich der Weg, den Microsoft gerade geht, nämlich über Inhalte und sich dann hinterher überlegen, wie man das auf möglichst viele Geräte kriegt. Ich glaube, am erfolgreichsten ist, ein System, das einem die Wahl lässt, ob man streamen will, wenn man aber nicht kann oder nicht möchte, dann sollte man die Spiele herunterladen können. Die freie Wahl, was, wie und wo man spielen möchte, ist dabei wichtig, und sollte idealerweise angeboten werden.

Interviewer: Wie wird die Videospielbranche Ihrer Meinung nach in zehn Jahren aussehen?

E1: Ich glaube nicht so viel anders als heute. Was sich aber definitiv ändern wird, ist das immer weniger Spiele bei GameStop oder MediaMarkt verkauft werden. Ich glaube, das wird in zehn Jahren nicht mehr der Fall sein. Es kann sein, dass die komplette Branche quasi aus den Elektronikläden verschwindet. Das könnte ich mir gut vorstellen.

Interviewer: Gibt es etwas, das nicht von den gestellten Fragen abgedeckt wurde und Sie hinzufügen möchten?

E1: Die Fragen waren sehr ausführlich und haben eigentlich schon alles abgedeckt, denke ich.

Interviewer: Dann sind wir auch schon am Ende des Interviews. Vielen Dank, dass Sie sich die Zeit dafür genommen haben.

Translation of T1

Interviewer: Thank you for taking the time today to do this interview with me. First, I will give you a short overview of how we are going to proceed. As part of my master thesis I am going to ask you some questions about the impact of video game subscription services on the video game industry and the future of gaming. All of your answers will be used for the sole purpose of collecting data for my master thesis and will be kept confidential. The information will not be handed to any third parties and your identity will remain anonymous. I will record the interview, if you agree.

E1: I agree.

Interviewer: The main question of my thesis is, whether subscription-based services for video games are going to revolutionize the video game industry. How would you intuitively answer this question?

E1: I think that pretty much the same thing that happened with movies and music, for example, is about to happen with video games now. These days, nobody wants to buy film and series boxes or CDs anymore, and lumber up their apartment if they can easily just stream everything. I think that the same thing is going to happen with video games from now on. There will always be people who want to collect some, and who also like to have some on the shelf. And, there are still people who always complain why everything has to be digital nowadays, but in the end, I believe that they are a minority. That is why I think that eventually everything will focus on streaming and subscription services. However, I believe that no one would subscribe to ten different streaming services, but that the focus will be on two to three major players.

Interviewer: What do you think are the opportunities and what are the possible obstacles or threats that are coming along with this change?

E1: We always believe that we have such great internet in the Western world, and how reliable it is. I really do not believe this though, and for that matter, I think there is still a long way to go. Asia has far less problems because relatively many emerging markets in Asia are doing it right. As soon as they get a bit wealthy, they build the right wires directly, which would make it possible. I think that the bandwidth is one of the biggest obstacles at the present time. However, as a result, gaming is suddenly made accessible to a completely new target group, and this I think is the biggest opportunity here. People who may not have the hardware or internet connection at home or who are traveling a lot could then easily play games even on the go and on low-end PCs, tablets, and even smartphones.

Interviewer: What do you think will then happen to the traditional console market? Are consoles obsolete?

E1: Maybe not yet. I do not think they are outdated right now because many people still like to have a device under their TV at home, but if I have to look ten years into the future, then I think consoles will only be like apps on TVs, just as there is the Netflix app on the Smart TV, there may eventually be an Xbox app for example, and that will probably just be a chip installed somewhere in the TV. I could well imagine that, even if only to protect the environment, and not to build new plastic boxes which then have to be recycled.

Interviewer: Google enters the video game industry with their promising game streaming platform Google Stadia and they are talking about gaming for everyone. What is your opinion on that vision?

E1: People who have not had the opportunity to play video games before will be able to play them, but the question is, do they really want to? And do gamers really want to play blockbuster games on their smartphones or tablets? First of all, as I said, as far as the bandwidth is concerned, I am not really sure who actually can really play at all. I also regard the business model as a step backwards rather than forward. Google is one of the few companies that can actually do that since it has the architecture and the money, but if that really works as it should, will it actually be appealing enough?

Interviewer: What are your thoughts on Google entering the gaming business in general?

E1: I think such a big company like Google cannot afford not to enter the gaming business. The much-cited number of the video game industry's revenue worldwide is higher than that of the film and music industry together, and if you are a technology company that is so broad in terms of server architecture, then it makes perfect sense to try to get in.

Interviewer: Google Stadia does not offer an ever-expanding Netflix-style library of video games but is rather comparable to Xbox Live Gold or PlayStation Plus, offering a subscription model that includes one free game per month alongside direct full game purchases and access to 4K, 60 FPS, HDR, surround-sound game streaming. Do you believe that this concept pays off?

E1: I can only talk about my own perception of things, but I believe that many people feel that way too. If I have the choice to spend about 70 € on a game, I can play at any time, even if I'm offline, and the other only when I'm online, then I think, it is relatively clear which I would grab. I would definitely take the game that is not streamed, or rather, does not necessarily have to be streamed. That's why, I think that is a big step backwards for this model, and gamers are very loud and very passionate. I do not think they will be big fans of it.

Interviewer: Unlike Google, Microsoft focuses on content rather than technology. In your opinion, which comes first in order to drive success?

E1: To me personally, transparency is an important part. To exactly know what you get for your money. That is a relatively important thing, I think. And, that you have the choice how you want to play. With the Game Pass, you can also buy the games directly to keep them. So, you can decide at any time, whether it is worth it. I think that is the most important thing with a subscription model, and that is exactly what Stadia is missing with just one free game a month, whereby you also do not know what games that will be. It also raises the question of whether Google develops own games, because that is currently not so clear to me. In the case of Microsoft, however, you can rely on all first party-titles to just come directly into the Game Pass at launch. But, to explicitly answer the question of whether technology or content should come first, I think that both are relatively equally important, whereas in the long run, content makes the decisive difference.

Interviewer: The subscription service Uplay + from Ubisoft will be integrated into Google Stadia from 2020. One must pay both services separately, but would have access to streaming and a library of video games. What do you make of it?

E1: I think whoever Google would ask to integrate their subscription service, whether that is EA with Access or Ubisoft with their service, I do not think anyone would reject a company like Google. So I do not see that as a big achievement as long as there is no reduction on a combined subscription fee. Otherwise, I would rather go for a service that directly offers both, and which allows me to download the games.

Interviewer: Apple focuses on new and exclusive titles in order to drive success with its cross-platform video game subscription service Arcade and stays away from the upcoming cloud gaming battle. Instead Apple aims to extol the virtues of iOS as a gaming platform, which no doubt obtains a dual effect of signing gamers up to Arcade and shifting more phones and tablets. What do you think about this approach in comparison to other services?

E1: I think Apple makes a lot of money with their hardware and their other services, and also with the games that come with it, but to put it in a way that does not sound like I want to say that people who only play on their smartphones are not real gamers, but I just think that these people are not so much into gaming flat rates or subscription services, but maybe just want to play Candy Crush. Whether they would now really subscribe to video games, I honestly cannot imagine so well. But I am also a bit older and do not know how it looks like with the 16-year-olds today, but then I ask myself, how many 16-year-olds are even in possession of 1000 € devices? I think, to really reach core gamers, Apple has to do it differently. I do not think that a subscription model on very expensive devices is really sufficient.

Interviewer: Reportedly, Microsoft is working on their video game streaming service Project xCloud. Microsoft has not officially said anything about combining xCloud and their upgraded subscription service Game Pass Ultimate, but if that would be the case, they would become the ‘Netflix for video games’. What is your opinion on that term in particular and the concept behind it with regard to the video game industry?

E1: Well, the term 'Netflix for video games' is, in my opinion, just good marketing talk because everyone knows directly what is meant, but I do not really see much more behind it.

Interviewer: Do you think that the value of video games decrease by offering them on a ‘Netflix-style’ gaming platform?

E1: I think the overall value for users would not necessarily decrease. I think you will be able to try relatively many games that you would have never tried otherwise. But the question is, if the high sums involved in developing games make it worthwhile for developers.

Interviewer: Reportedly, Apple will be dispersing revenue from its subscription fees based on playtime of individual titles. How would such a model affect a video game’s quality?

E1: In the case of Spotify, for example, I find it fair that music labels are paid out on market share per week, but I do not think that would make much sense for video games. At some point, we would then only have games as a service, and I do not think that this would be the right way to go.

Interviewer: In your opinion, how would an ideal revenue model for a video game subscription service look like?

E1: I do not think that the right model has to be particularly cheap. I believe that the right model has to provide the right content, and I think this is the way that Microsoft is currently going, namely first content and then afterwards considering how to get that on as many devices as possible. I think the most successful one is a system that lets you choose to stream, but if you cannot or do not want to, then you should be able to download the games on whichever device you want. I think the free choice of what, how and where I want to play is important, and ideally it should be offered.

Interviewer: How do you think the video game industry will look like in ten years?

E1: I do not believe that it is going to be so much different from today. However, what is definitely going to change is that fewer and fewer games are being sold at physical storefronts like GameStop or MediaMarkt. I think that will definitely not be the case in ten years' time. It may be that the entire sector disappears from the electronics stores. I can very well imagine that.

Interviewer: Is there anything else you would like to add that has not been covered by the questions I have already posed?

E1: The questions have been very extensive and have actually covered everything, I think.

Interviewer: Then, we are already at the end of the interview. Thank you.

T2: Interview with E2:

Interviewer: Thank you for taking the time today to do this interview with me. First, I will give you a short overview of how we are going to proceed. As part of my master thesis I am going to ask you some questions about the impact of video game subscription services on the video game industry and the future of gaming. All of your answers will be used for the sole purpose of collecting data for my master thesis and will be kept confidential. The information will not be handed to any third parties and your identity will remain anonymous. I will record the interview, if you agree.

E2: Okay.

Interviewer: The main question of my thesis is, whether subscription-based services for video games are going to revolutionize the video game industry. How would you intuitively answer this question?

E2: I don't see a future where subscriptions are dominant. For sure, they will increasingly become an important part of gaming, and they might even change the industry at some point, but I think that subscription services will establish an additive way of playing games as part of a mixed ecosystem.

Interviewer: In your opinion, what are the opportunities, and what are the possible obstacles or threats that are coming along with this change?

E2: From the customer's point of view, the user experience becomes even more ubiquitous and at the same time smoother. No cumbersome updates, patches and incompatibilities anymore. Just click on Start and it starts. Actually, here again the original console promise of "turn on and get started" finally redeemed. Only without the Internet will be problematic - but hopefully here should soon provide 5G remedy, both in terms of bandwidth and latency.

Interviewer: What do you think will happen to the traditional console market? Are consoles obsolete?

E2: No, not yet, I think. We haven’t reached that point yet, but there is a good chance that step-by-step we will see less and less hardware.

Yet, I doubt these services will one day work as a sole way to play video games as some might believe. However as an addition to an already strong gaming line up it could work. Like for Microsoft for instance, they have a console, they have a PC and then they offer streaming as a “and we have this option too” sort of thing. The main way to play is the tried and true console or PC, however, you may not have a game installed on a friends Xbox or still want to grind out a level while you’re out of the house so you jump on your phone or laptop. In this situation I think it works very well. Furthermore, one should first wait for the new generation of consoles and their features to make such a forecast.

Interviewer: Google enters the video game industry with their promising game streaming platform Google Stadia and they are talking about gaming for everyone. What is your opinion on that vision? And, do you think that it is implementable in the first place?

E2: That is a great vision, but the question is, is it implementable in practice? Even if we are in 2019 now, a stable internet connection is not widely available, and that is why I think that we still have a long way to go to get there.

Interviewer: What are your thoughts on Google entering the gaming business in general?

E2: There is a website that details more than 140 projects Google has sent to a digital graveyard, which currently is a likely discussed topic regarding Stadia, but I think, one does not enter a $138 billion industry lightly, and Google has spent years developing the Stadia platform. Google has even formed its own first-party studio which will certainly yield exclusives, a practice that's basically a requirement to become a heavyweight in the console game world.

Interviewer: Against expectations, Google Stadia does not offer an ever-expanding Netflix-style library of video games but is rather comparable to Xbox Live Gold or PlayStation Plus, offering a subscription model that includes one free game per month alongside direct full game purchases and access to streaming. Do you believe that this concept pays off?

E2: The way I see it, Stadia Pro is $120 per year. That is the cost of two games at full price, and as far as I know, with Pro you get roughly one game per month for free. Means, you only pay the total amount of two games and you get twelve games (ideally in 4K), and you do not have to think about the hardware. I think for someone who is not often in front of his own home entertainment system, having the flexibility to play games on any device as long as it is connected to internet, Stadia might be a true blessing, but as I said before already, I am quite concerned about the bandwidth. The main question is whether or not people have the bandwidth to actually enjoy a streaming game service as intended. And by as intended, I mean without noticeable latency and lag. So how many people can enjoy the full potential of game streaming via Stadia? We'll have to wait and see!

Interviewer: Microsoft's subscription service Game Pass is reportedly doing quite well. Unlike Google, Microsoft focuses on content rather than technology. In your opinion, which comes first?

E2: Well, Microsoft has an eco-system while Google needs to sustain strictly based on the Stadia alone, therefore, they are currently focusing on technology in the first place, but I think they know how important content is, otherwise they wouldn't have formed an own first-party studio to create exclusives. So, to answer your question, content is what really matters in the long-term. Gaming is all about games. Gaming it not about having specific devices to play games on, but about having games accessible on any device you have. That's the essence, or at least it should be. I think that in future the competition will be less defined by streaming and technology, but rather by who owns the best exclusive titles for their own platform.

Interviewer: Apple focuses on new and exclusive titles in order to drive success with its cross-platform video game subscription service Arcade and stays away from the upcoming cloud gaming battle. Instead Apple aims to extol the virtues of iOS as a gaming platform, which no doubt obtains a dual effect of signing gamers up to Arcade and shifting more phones and tablets. What do you think about this approach in comparison to other services?

E2: It always has worked quite well for them this way, and there are people who are a lot of people who are addicted to digging themselves deeper into this eco-system, so I think, for Apple it is a good way to go. Regarding Arcade, I must say it's a very interesting concept for getting more attention and support for those that make "premium" games on mobile, and these are all new games that doesn't appear to be conversion of existing titles to the new service. It can also become a real good place for indie games.

Interviewer: Reportedly, Microsoft is working on their video game streaming service xCloud. Microsoft has not officially said anything about combining xCloud and their upgraded subscription service Game Pass Ultimate, but if that would be the case, they would become the 'Netflix for video games'. What is your opinion on that term and the concept behind it with regard to the video game industry?

E2: There is a hypothetical need for an ever-expending library of video games, but in reality, that is not what gamers are asking for, I think. What they really want is a handful of good games, a curated portfolio of games, if you like, not a subscription that has thousands and thousands of games. But, what I personally am concerned of when thinking about such a concept for video games is that it might pose a threat for developers dependent on what form these future streaming platforms take.

Interviewer: A report from Bloomberg suggests that Apple will be dispersing revenue from its subscription fees based on playtime of individual titles. How would such a model affect a video game's quality?

E2: If developers are payed according to playtime of individual titles, video games constructed as engagement engines are preferred. Consequently, more finite experiences are at a disadvantage. I think that such a model would not necessarily have a negative effect on the quality of a game as such, but rather it would force developers to treat games as a service to keep people playing to wring as much revenue from a video game as possible.

Interviewer: How do you think the video game industry will look like in ten years?

E2: If we look at what the future of gaming holds from today's point of view, it's clear that games-as-a-service and streaming are going to be a huge part of gaming in ten years as technology improves, and the industry will become even more competitive, but I don't think that it's going to be dramatically different, and I also don't think that these services will replace the traditional way of playing games, but rather function as an alternative way alongside.

Interviewer: Is there anything else you would like to add that has not been covered by the questions I have already posed?

E2: I recently have read an article regarding Google's service, in which the author discussed that the service still has a great opportunity to deliver even without the Netflix model by offering the option of trying out games under a certain length without owning the game. Just to simply provide users a first impression of the game before purchasing. That would certainly make subscribing to Stadia, or any other similar service, more alluring. I can actually very well imagine that. Stadia could start a new era of try-before-you-buy, and that functionality could very well become the key reason to get people signing up for accounts. Maybe you can find that article online.

Interviewer: I'll definitely look it up. We are already at the end of the interview now. Thank you so much for your time and your input.

T3: Interview with E3:

Interviewer: Thank you for taking the time today to do this interview with me. First, I will give you a short overview of how we are going to proceed. As part of my master thesis I am going to ask you some questions about the impact of video game subscription services on the video game industry and the future of gaming. All of your answers will be used for the sole purpose of collecting data for my master thesis and will be kept confidential. The information will not be handed to any third parties and your identity will remain anonymous. I will record the interview, if you agree.

E3: Sure.

Interviewer: The main question of my thesis is, whether subscription-based services for video games are going to revolutionize the video game industry. How would you intuitively answer this question?

E3: The subscription model is not necessarily new to the video game industry. Since this is your master thesis, I am assuming that you have done a fair bit of research already, no?

Interviewer: Yes, that’s right. The classic subscription model is principally nothing new, but it is becoming more and more popular now, particularly in connection with streaming. This emerging trend is what I am trying to investigate in my master thesis.

E3: You’ve just said it yourself. Yes, it’s a trend, but it’s nothing new, and that’s exactly how I see it. However, I’m still very curious about it. For sure it’s going to challenge the video industry at some point, but I think it is still too early and also too vague to assess whether these services have a big impact on the industry or not. I can’t tell you.

Interviewer: Google is talking about gaming for everyone. What is your opinion on that vision? And, do you think that it is implementable in the first place?

E3: The problem here is the fast and uninterrupted transmission of the very large amounts of data. Only a fraction of the potential users will have an internet connection. If you want, you can put a random YouTube video on 4K and click around in the timeline. Google Glass fibre and data centres back and forth, the video will not be played without latency because just yet, the normal, slow and unreliable Internet plays a role, at least in the last few meters. I do not think the service today can provide a similar experience to a wide range of players as consoles or PCs. It could be interesting for a relatively manageable group of players who have a great internet connection and no modern gaming hardware at the same time. The situation will improve over the next few years, but I do not think the situation will change so radically in the next 5 or 10 years that it will become a system for everyone.

Interviewer: What are your thoughts on Google entering the gaming business in general?

E3: From the customer's point of view: Whenever a strong, ambitious player gets involved, it's good for the market, so things are moving forward. From a developer's point of view, it is still too early to evaluate this seriously.

Interviewer: What were actually the first thoughts you had in mind after Google announced Google Stadia at the GDC in march this year and what are you thinking about it now?

E3: Honestly, the more I hear about Stadia the less I think it’s going to be anything close to the game-changer for the industry Google is pitching it as. We’ll know more when it launches in full, but for now, it remains confounding.

Interviewer: Against expectations, Google Stadia does not offer an ever-expanding library of video games but is rather comparable to Xbox Live Gold or PlayStation Plus, offering a subscription model that includes one free game per month alongside direct full game purchases and access to game streaming. Do you believe that this concept pays off?

E3: People seem quite disappointed about that, with good reason. The thing is, they have made it sound like something similar to Netflix.

And to a certain degree, it actually is. It depends on what you find the value proposition of Netflix to be. Is it the access to a catalogue of content, or is it the convenience of not having to get physical media or download content in its entirety before playing. If you consider the value to be in the streaming aspect of content delivery, then Stadia is like Netflix, but most people do see the catalogue of content for one flat fee to be the value proposition, so they are disappointed, and honestly, Google Stadia wants to compare itself to Xbox Live Gold or PlayStation Plus, and yet at $120 a year for the 4K streaming tier, it is effectively twice the price of either of those, again, cutting into its "but no hardware!" selling point. Five years of premium Google Stadia and the price increase over Gold or Plus means you have essentially bought a console anyway. To me personally, Stadia is just another online storefront – streaming or no streaming. I don't think that's enough. From a developer perspective: Depends heavily on the business model and I am not very impressed by that to be honest.

Interviewer: And what do you think about the fact that the games purchased on Stadia only exist in the cloud?

E3: Well, I think, if the user experience is good, nobody would actually care about that.

Interviewer: Then, what is actually your opinion on the term 'Netflix for video games' and the concept behind it with regard to the video game industry?

E3: In the video game industry, I don't believe that such a model will become the norm. What made Netflix strong back in the days was the fact that you could easily enjoy a lot of content for a quite low monthly fee. In the early days there was no doubt about it, streaming and subscription was the future. Everybody loved the idea. Fast-forward to today, the landscape changed. Netflix is not the only big player anymore. Tons of other streaming services emerged throughout the time, and now you have to choose between Netflix, HBO, Hulu, Amazon, Apple TV, Disney+, and more. Means, if you want to watch everything, you'll have to pay each service separately, and I doubt that you'll be willing to do that. Due to this, more and more people are cancelling their subscriptions. Exclusivity is the main selling point of these services, and the competition and greediness of the companies are killing the concept as such. Therefore, I believe that this kind of evolution will eventually mean the downfall of subscription services for video games.

Interviewer: Microsoft's subscription service Game Pass is reportedly doing very well. Unlike Google, Microsoft focuses first on content rather than technology. In your opinion, which comes first?

E3: Technology is an important part, but what really matters in the long run is content. Sony, for example, announced the acquisition of Insomniac Games lately. That is a company responsible for some of the best exclusives of all time, and apart from that, they have all in all tons of great exclusives, whereas Microsoft somehow has a serious exclusive games problem, and Microsoft needs to act very soon in order to be relevant going forward in the game industry. I don't know about Google, or Apple, but if they are serious about getting into the gaming business, then they would focus on exclusives.

Interviewer: Apple actually does focus on new and exclusive titles in order to drive success with its cross-platform video game subscription service Arcade, but stays away from the upcoming cloud gaming battle. Instead Apple aims to extol the virtues of iOS as a gaming platform, which no doubt obtains a dual effect of signing gamers up to Arcade and shifting more phones and tablets. What do you think about this approach in comparison to other services?

E3: Well, Apple has always been a closed eco-system, and there is nothing wrong about that, but I honestly don't really understand what Apple is trying to do with Arcade. I don't really get what it is, and none of my friends and colleagues either. Even Apple representatives couldn't really explain it to us, so I'm generally a bit sceptical about it.

Interviewer: Alright. Is there actually any other existing or upcoming video game subscription service that you would like to mention?

E3: Not really to be honest.

Interviewer: Alright then. We are actually almost at the end of the interview. I have one last question for you. How do you think the video game industry will look like in ten years?

E3: The future of such an industry is unpredictable, and that is what it's all about. That being said, I actually don't really think that it's going to be completely different than today, but I can very well imagine that technologies like 5G are going to have a major impact on every aspect of our digital lives, concerning streaming in particular. I also believe that we'll see AR and VR progressing further, and maybe unexpected things might even happen and change everything. We'll have to wait and see. What I always like to think of is this [showing a smartphone]. Nobody saw this coming, and when it came, it changed everything. The same applies to free-to-play. Events that nobody would ever have thought possible before have suddenly changed entire lives and businesses, and that is what I expect in the next ten years.

Interviewer: A very good answer. Is there anything else you would like to add that has not been covered by the questions I have already posed?

E3: I have nothing to add to be honest.

Interviewer: Alright. Then we are at the end of the interview now. Thank you for your time.

A2: Affidavit

I hereby confirm by means of my signature that I have prepared the submitted work independently and without the help of others, and have not used any sources other than those specified.

All texts taken literally or meaningfully from published and non-published publications are indicated as such.

The work has not been submitted in the same or similar form – not even as excerpts – to any other examination authority, and has not yet been published.

Location, Date Signature