



Karelia University of Applied Sciences
BBA

DIGITAL ENTERTAINMENT MARKET ANALYSIS

Valerii Petrov

Thesis, May 2022

www.karelia.fi


	<p> THESIS May 2022 Degree Programme in International Business </p> <p> Tikkarinne 9 80200 JOENSUU +358 13 260 600 (switchboard) </p>	
<p> Author Valerii Petrov </p>		
<p> Title Digital entertainment Market Analysis Commissioned by Pertti Laitinen </p>		
<p> Abstract </p> <p> The purpose of this thesis is to conduct market research on the digital entertainment industry and find out what has made this area of the entertainment business so successful. The main goal is to analyze the methods, approaches, and trends in this ever-evolving industry that have made this part of the entertainment market the largest and most successful in the world. </p> <p> The study was conducted based on official literature and secondary data. Secondary data was more suitable for this kind of research due to its constantly updated status and relevance to the industry. The internet sources used included official news articles, business electronic journals, annual reports of companies, and reviews of official professional analytics. This theoretical framework has made it possible to accurately illustrate the current state and prospects of the industry. </p> <p> The results provide an overview of the main industries of the digital entertainment market, the methods, and approaches that companies are using, how trends are changing, what impact Covid 19 has had on this industry, as well as trends in its development for the future. </p>		
<p> Language English </p>	<p> Pages 43 Appendices 0 Pages of Appendices - </p>	
<p> Keywords Digital economy, Digital Business, Digital Entertainment </p>		

TABLE OF CONTENTS

Table of Contents

TABLE OF CONTENTS	3
PICTURES, FIGURES, AND TABLES.....	4
TERMS AND ABBREVIATIONS.....	5
1. INTRODUCTION	6
1.1 RESEARCH QUESTION.....	7
1.2 OBJECTIVES OF THE RESEARCH	7
1.3 RESEARCH METHOD	7
2. THEORETICAL FRAMEWORK.....	8
2.1 DIGITAL ECONOMY.....	8
2.2 DIGITAL GOODS AND SERVICES	10
2.3 E-COMMERCE	11
2.3.1 DIGITAL MARKETING.....	12
2.4 PLATFORM ECONOMY	12
2.5 SHARING ECONOMY	14
2.6 INTERNATIONALIZATION OF DIGITAL BUSINESS	15
3. DIGITAL ENTERTAINMENT MARKET	16
3.1 DIGITAL ENTERTAINMENT CONCEPT.....	16
3.2 MUSIC INDUSTRY	17
3.3 IVOD INDUSTRY	18
3.4 VIDEO GAMING INDUSTRY.....	20
4. FINDINGS.....	22
4.1 STATISTICS	22
4.1.1 MUSIC INDUSTRY STATISTICS	23
4.1.2 IVOD INDUSTRY STATISTICS	25
4.1.3 VIDEO GAMING INDUSTRY STATISTICS	30
4.2 DISTRIBUTION / MONETIZATION	32
4.2.1 PAYPLAY	32
4.2.2 ADVERTISING.....	33
4.2.3 SUBSCRIPTION	33
4.2.4 MICROTRANSACTIONS.....	34
4.3 CORONA PANDEMIC IMPACT	35
5. CONCLUSION.....	36
5.1 MUSIC INDUSTRY	37
5.2 IVOD INDUSTRY	37
5.3 VIDEO GAME INDUSTRY.....	38
5.4 SUGGESTIONS FOR FUTURE RESEARCH	38
REFERENCES	39

Pictures, Figures, and Tables

Figure 1. Scope of the digital economy (Bukht & Heeks, 2017)	10
Figure 2. Top 25 Platforms traded publicly (Evans & Gawer, 2016).....	14
Figure 3. Brief History of Gaming (StopGame, 2018)	21
Figure 4. Global Recorded Music Industry revenues 1999 – 2021 (IFPI, 2022)	23
<i>Figure 5. Global Recorded Music revenues by Segment 2021 (IFPI, 2022)</i>	<i>24</i>
Figure 6. Main Points of Music Industry 2021 (IFPI, 2022)	24
Figure 7. Quarterly Hours Spent in Video Streaming apps Worldwide (Lexi Sydow, 2021)	26
Figure 8. Number of Disney Plus subscribers worldwide from 1st quarter 2020 to 1st quarter 2022 (Statista, 2022).....	27
Figure 9. Netflix Revenue by the year 2011-2021 (Brian Dean, 2021).....	28
Figure 10. YouTube usage growth 2006-2020 (Backlinko, 2022).....	29
Figure 11. Global Games Market Revenues per Segment 2012-2021 (NewZoo, 2018).....	30
Figure 12. Global Player Forecast 2015-2024 (NewZoo, 2021).....	31
Figure 13. Global Games Market 2021 per Segment (NewZoo, 2021).....	32
Figure 14. Changes made to paid subscriptions since the COVID-19 pandemic began (Deloitte Insights, 2022)	35
Figure 15. Streaming video share of time spent by age 2019-2020 (Nielsen, 2020).....	36

Terms and Abbreviations

B2b – Business to business

B2c – Business to consumer

C2c – Consumer to consumer

ICT – Information and communications technologies

IT - Information Technology

F2P – free to play (regarding video games)

OECD – Organization for Economic Co-operation and Development

SMM – Social media marketing

SEO – Search engine optimization

QR – Quick response

CD – Compact disk

LP – Long-playing record

VOD – Video on demand

IVOD – Interactive video on demand

CAGR – Compound annual growth rate

PC – Personal computer

DVD – Digital video disc

1. Introduction

Digital technologies have changed the world, and this change has happened so fast that so far no innovation has been able to achieve the same speed of development and distribution. These changes were felt both by consumers of goods and services and by producers of these same goods and services. People's lives, in general, have also changed: the way people watch movies and listen to music or how they order a taxi or a meal from a restaurant are all different from the past.

The entertainment industry has also changed significantly with the globalization and digitalization of content. Companies working in this area have had to change the structure of monetization, distribution, and business, in general, to remain relevant and competitive. This is also true for consumers who are eventually faced with completely new ways of acquiring content in the whole "ocean" of online services and digital marketplaces.

This study will focus on a specific branch of the digital marketplace, namely digital entertainment. Its main parts and how they developed, their position at the moment, and predictions for the future will be considered and analyzed. Also in this study, the key players in the market will be listed, and the historical factors that influenced the formation of this industry will be mentioned.

In conducting this research, it will also be impossible not to touch on the topic of the coronavirus epidemic, which has largely affected the market and the economy in general, and the entertainment sector in particular. Therefore, the effect of the coronavirus epidemic on this industry will also be considered in this research.

1.1 Research Question

As mentioned earlier, the research question behind this study is to understand how much the digital entertainment industry has changed and evolved in recent years. This study includes two main parts: the development of individual sectors in this industry and general development trends. This question can be formulated as follows:

- How does the digital entertainment industry changed and developed?

1.2 Objectives of the Research

This study aims to find out how the entertainment industry performs in global terms and statistics. This is achieved by comparing the performance of the industry in recent years, as well as a quantitative study on the performance of the industry. The industry has changed in the way it monetizes and distributes digital content, and the potential audience it reaches has grown exponentially. The second goal is to try to assess how much the development of the industry has been affected by Covid 19, the epidemic which has largely affected the entire global economy in recent years.

1.3 Research Method

The study is conducted mainly with secondary data. Secondary data is an empirical form of information that may or may not be numerical and is obtained through databases, systematic reviews, and surveys (Smith 2006). The main reason for using them is that the topic is new and relevant. The digital entertainment industry in its current form is a fairly young industry with just a decade behind it. This industry is constantly changing and improving, looking for its own unique and unprecedented path. For this study, this means that most official literature is too outdated to successfully convey the true state of affairs. Primary data such as official books and electronic journals will be incorporated into this study, but preference will be given to statistics and detailed reviews that more accurately reflect the current situation.

2. Theoretical Framework

In this chapter, the theoretical aspect of this study will be considered. The theme of digital entertainment is based on many of the fundamental concepts of the modern digital economy. To understand the basics, such theoretical concepts as a digital, platform, and the sharing economy will be considered. For a more in-depth understanding of goods/services and their promotion in the digital world, the concepts of digital services, e-commerce, and digital marketing will be considered. The final part contains an attempt to understand the process of internationalization of digital businesses.

2.1 Digital Economy

The digital economy is a global network of economic activities, commercial transactions, and professional interactions supported by information and communication technologies, or ICTs (OECD, 2002). It can be briefly referred to as the digital economy. In its early days, the digital economy was sometimes referred to as the Internet economy, the new economy, or the Web economy because of its dependence on Internet connectivity (Tapscott1996).

Economists and business leaders argue that the digital economy is more advanced and complex than the Internet economy, which by one definition simply refers to the economic value derived from the Internet.

In the international sense, the digital economy is an interconnected, systemically organized spatial structure of relationships among businesses. It includes the area of creation and use of new information, technologies and products, telecommunications services, electronic commerce, electronic trading, electronic markets, remote services, and other components.

Competition in digital markets has some unique characteristics. Competition in large digital markets often takes a unique form. First, competition between

business models or platforms tends to be more important than competition between business models. In other words, the dominance or even monopoly of Internet platforms almost always leads to business success. Second, digital markets are often characterized by strong network effects and economies of scale, which reinforce this feature of competition through market dominance. Third, many digital marketplaces are two-sided, so at least two groups of users benefit from using the digital platform. For example, search engines are used both by individuals to access information on the Internet and by advertisers to reach audiences. Fourth, digital markets are characterized by high rates of investment and innovation, leading to rapid technological progress in the industry.

Competition in digital markets has often been cyclical in the past. A successful company may gain significant market power, but this dominance may be threatened by the next innovation cycle.

The key characteristics of the digital economy are determined by the following factors:

- Economic activity is focused on the platforms of the "digital" economy.
- personalized service models.
- the direct interaction between producers and consumers.
- the spread of the sharing economy.
- a significant role in the contribution of individual participants.

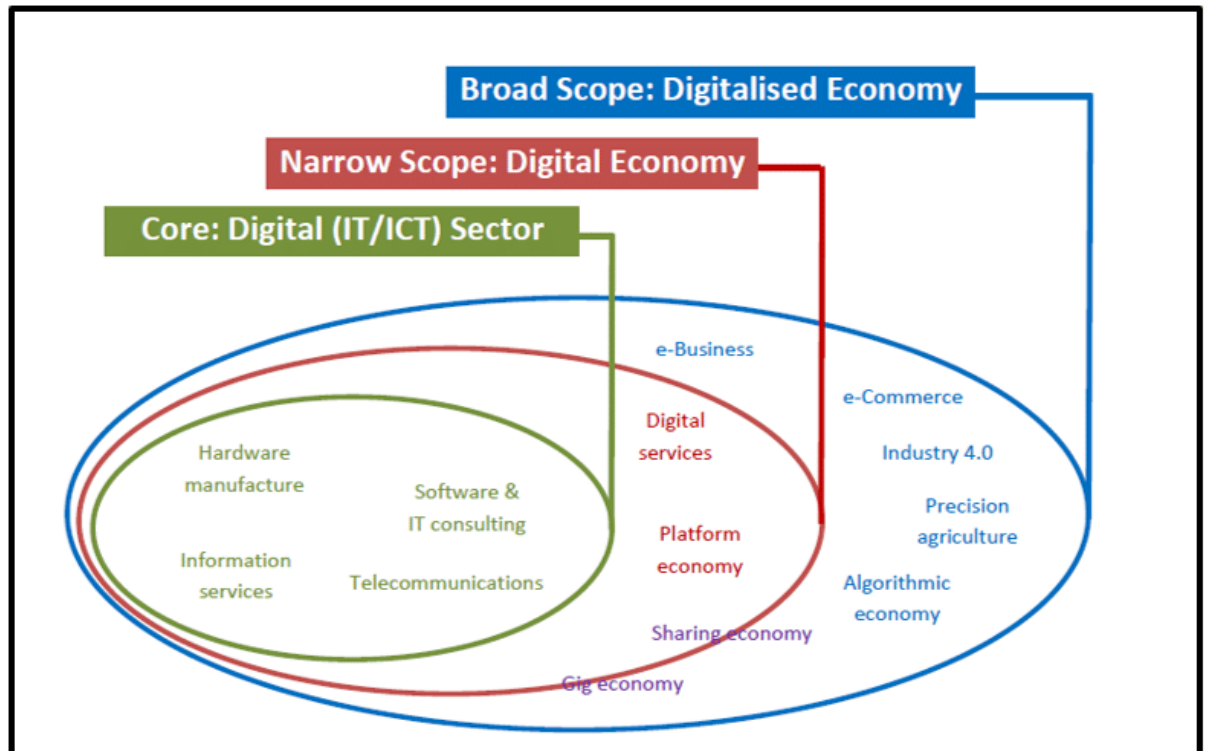


Figure 1. Scope of the digital economy (Bukht & Heeks 2017)

2.2 Digital Goods and Services

Defining digital services as well as digital goods will likely be one of the key concepts in understanding what exactly the companies involved in the production of digital entertainment are distributing.

In the digital world, it is extremely difficult to draw a line between a digital service and a digital product. This still leads to much controversy among economists and business experts. Definitions of these two terms are given below. However, for the remainder of this research, we will note that digital services or products are referred to by the same term - digital content/services that are a product of a digital enterprise.

A digital service is a set of services that allow users to work remotely with specific information resources without becoming owners of those resources (Halstead, 2014, 14)

Digital goods are intangible goods that exist in digital form (Robirt Kong, 2019). Examples of such goods include digital media such as e-books, downloadable music, Internet radio, Internet TV and streaming media, fonts, logos, photos and graphics, digital subscriptions, online advertising, and more.

According to Halstead (2014), the characteristics of a digital service are as follows:

- They are delivered electronically: Services are delivered over the Internet and viewed through a smartphone or computer.
- Simple and accessible: Digital services must be easy to use and accessible from different devices and in different places and at different times.
- Transactional: Digital services must add value to the transaction and allow their users to take responsibility for using the service.

2.3 E-Commerce

E-commerce or electronic commerce is a business activity that in one way or another has to do with the distribution, advertising, promotion, and sale of services or goods over the Internet. In simple terms, any activity with a commercial orientation on the global network falls under the definition of online commerce. This field originated in the United States, then developed in Europe, and the late 90s of the last century, it began to actively develop in China and Russia.

E-commerce includes global categories such as online sales, Internet banking, ticket and hotel reservations, payment system transactions, online marketing, and advertising. Since 1998, e-commerce has reached \$3-3.5 trillion in sales in 20 years. Leaders in e-commerce - China, USA.

2.3.1 Digital Marketing

Digital marketing is a way to promote b2c and b2b goods and services using digital methods and communicate with consumers through the most popular and convenient online channels. Some of these marketing tools include a website, contextual advertising, emailing, and a social networking community.

Internet marketing tools - SMM and SEO, email newsletters, contextual and targeted advertising - work only within the network and attract consumers through online channels. Digital marketing uses the same methods but is not limited to them. Additionally, it uses digital channels that do not depend on the Internet: Radio, television, SMS distributors, advertising, and QR codes. Thanks to these channels, it is possible to attract offline customers to the company website.

2.4 Platform Economy

The platform economy is an economic activity based on platforms, i.e., complex standard solutions designed for users to interact with each other. Examples of transactional platforms include Alibaba, Amazon, Uber, Airbnb, and Baidu. There are also innovative platforms that provide a technological environment. As a rule, platforms enable the use of specific solutions, related services, etc.

The following factors have contributed to the development of the platform economy:

- High technological share in the cost of goods. The main purpose of platforms is to disseminate technologies and reduce costs;
- Shortened time-to-market for companies due to strong competition Time in the platform economy has a high price;

- Rapid development of infrastructures.

The importance of the digital economy in global commodity-money relations is increasing year by year. Digitalization offers new opportunities for sustainable and comprehensive development. Today, the digital economy affects not only the technology sector and digital companies but also supply chains in various sectors of the economy.

The digital segment of the economy is growing due to the increase in the transactional sector, which accounts for over 70% of the national GDP in developed countries. This sector includes public administration, information services, financial consulting, wholesale and retail trade, provision of social services, etc. The higher the diversification and dynamism of the economy, the more data will rotate inside and outside the country, i.e., more information will appear in the national economy. The digital economy works more effectively in markets with a large number of participants and a high degree of dissemination of services from IT. The most important factor contributing to the development of the digital economy is innovation. According to experts, innovation has been more successful in recent years not in the technology industry, but in the field of business models. The global community is rapidly approaching the era of the platform economy, in which the tools used will become the basis of economic and social life and Internet-based mechanisms. Platforms are the future of the market economy. Platforms are also referred to as virtual trading platforms and include a range of users, business models, software, and network complexes. A digital platform is a business model based on innovative technologies that generate profits through exchanges between multiple participants. In recent years, there has been a rapid growth of digital platforms, and platform-based companies are increasingly penetrating various sectors of the economy.

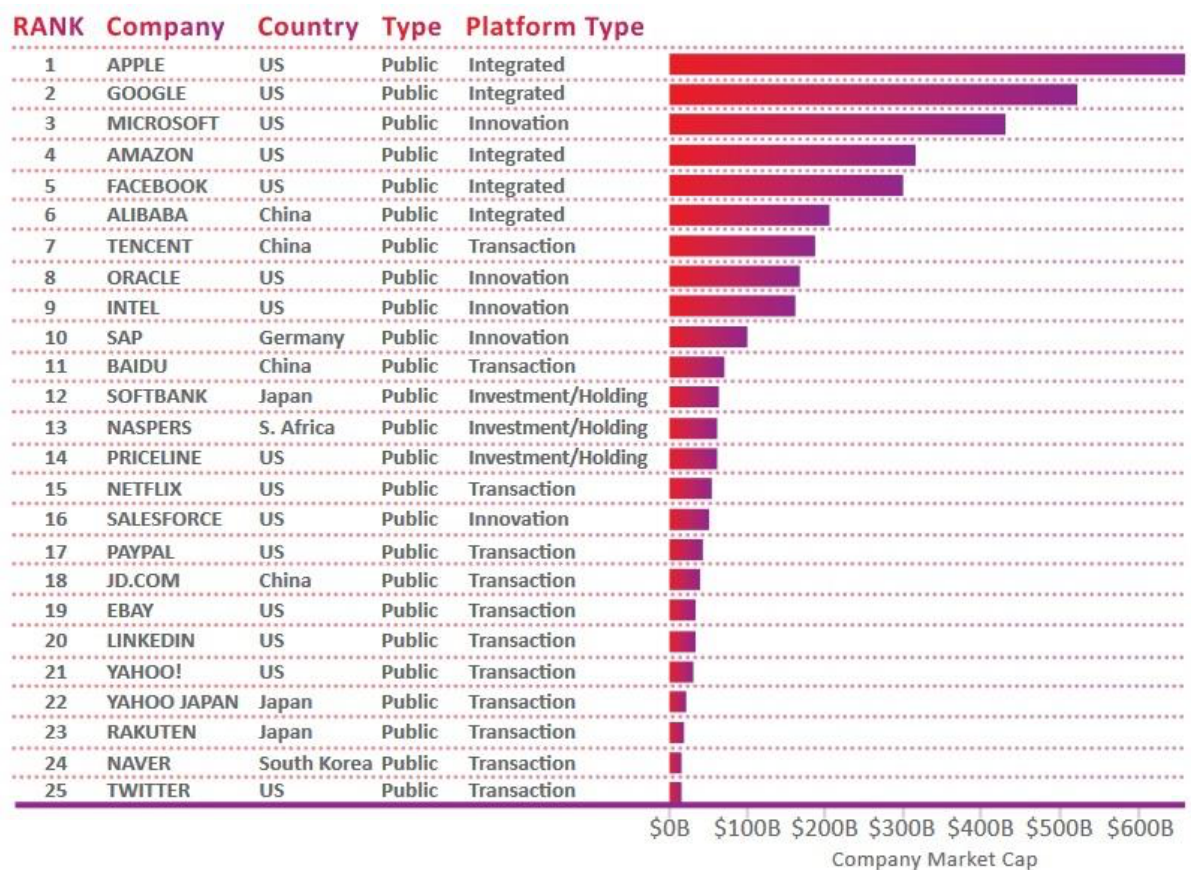


Figure 2. Top 25 Platforms traded publicly (Evans & Gawer 2016).

2.5 Sharing Economy

In this research, the concept of the sharing economy will be needed to understand the trends of mega-corporations in the distribution of their products and services and will be considered more from the side of b2c rather than c2c.

The term sharing economy is used to describe an economic model based on sharing goods and services, bartering, and leasing instead of owning. Sharing is based on the idea that it is cheaper to pay for temporary access to a product than to own that product (Magnusson 2015).

Marketplaces based on the sharing model enable the exchange of skills, things, services, and money. From large marketplaces like eBay and Craigslist to smaller ones like travelsharing, itemsharing, foodsharing, and carsharing networks,

collaborative consumption is redefining not only what people buy, but how they get it.

Collaborative consumption is closely related to the development of a modern peer-to-peer economy, in which horizontal networks for the production and exchange of economic products emerge and economic agents interact directly with each other without intermediaries. Shared consumption maximizes the efficiency of resource use and is a form of social cooperation.

2.6 Internationalization of digital business

Digital companies have something in common when it comes to internationalization: the durability of their products and services determines their internationalization strategy (Strandberg 2018). Low entry costs and no restrictions accelerate the process (Al-debi, 2008). Usually, digital startups plan to internationalize from the moment they launch (Turcan 2011).

All these factors are the reason for the high internationalization rate of digital companies compared to traditional companies. Decision-makers need to understand the aspirations of digital business. Preparing a good infrastructure and interactive solutions will help companies optimize their operations to gain a competitive advantage in such a large market.

Due to the widespread availability of the Internet, companies that focus on the digital business at the beginning of their operations need to realize that they are no longer in the local market, but in the international market, which brings additional difficulties in doing business, but also opens new opportunities. To succeed in certain regions, many companies, therefore, need to open local offices to avoid legal problems and get closer to potential consumers (we will look at examples of this in the next chapter).

This aspect of digital business is extremely interesting for this study. It will help to understand why some businesses are growing so fast. The next section will be an analysis of the most important industries in the field of digital entertainment.

3. Digital Entertainment Market

In this chapter, the theoretical aspect of digital entertainment will be analyzed in more detail, and the main directions and areas of activity of companies occupying most of the digital entertainment market in their fields will be highlighted.

3.1 Digital entertainment concept

Digital entertainment includes, but is not limited to, any combination of the following industries (they largely overlap):

- Digital media
- New media
- Video on demand
- Video games
- Interactive entertainment
- Computer games
- Online gambling
- Mobile entertainment
- Social media
- Streaming services (Music/Video)

The term "digital entertainment" does not have a specific definition; however, it is possible to outline the special characteristics inherent in this concept. Digital entertainment is goods and services (multimedia and streaming media) of an entertaining nature that are based on digital technologies. In the modern world, the main conductor between the producer/publisher of digital entertainment are "smart" devices (computers, smartphones, game consoles, smart TVs, etc.), and the main method of data transfer is the global internet.

The term is based on the observation that as early as 2011 in the UK, for example, "nearly half of people's waking time is spent on media content and communication services" ("screen time") (Ofcom 2010).

Digital entertainment is also extremely closely related to such concepts as digital marketing and e-commerce. They are the main ways of promoting and distributing digital goods and services related to the digital entertainment industry.

This research will be an analysis of the main industries in digital entertainment:

- Music industry
- Video industry (IVOD)
- Video game industry

This study will look at how they have evolved and continue to evolve, the outlook for the future, and the impact of the coronavirus, which has greatly affected the economy in general and the digital entertainment industry in particular.

The analysis of modern methods of monetization and distribution of digital goods and services in the field of digital entertainment will also be an integral part of the study.

3.2 Music Industry

The music business is an industry based on making money from music production. It is currently a multi-billion-dollar industry.

The music industry is a set of creative and technical processes aimed at conducting musical activities, as well as creating, recording, storing, and distributing musical works.

The growth of the technical development of musical media began in the 20th century. The first audio carriers were gramophone records, which made it possible to record and play music using special devices - gramophones. In 1897,

the first records appeared in the USA. Over the next few decades, technology stepped forward and by the end of the 1960s, it became possible to release records that reproduce sound in stereo. In 1963, an alternative way to record music appeared - compact cassettes. From the 1970s to the 1990s, cassettes became the most popular audio media. They were replaced in 1980-1990 by laser compact discs (CDs). The first mass-produced copies were produced in German enterprises, and their popularization was facilitated by giant software companies - Microsoft and Apple Computers. At the beginning of the 21st century, online stores appeared on the music market, which made it possible to buy and listen to songs via the internet. One of the first stores to distribute legal audio was Apple's iTunes Store.

The sale of musical works was carried out in various ways, including the sale of physical albums, digital albums, downloadable tracks, CDs, and LPs. By 2015, streaming services, digital music, and physical media were roughly equal in revenue sources for musicians and record companies. However, the overall trend was that CD sales numbers continued to fall, while digital music sales, as well as streaming service revenues, continued to rise.

In 2018 and 2019, streaming continued to develop and, according to analysts, will maintain this momentum over the coming years. However, competition between services is growing: Spotify is still the global market leader, but in the US, Apple Music subscribers have surpassed Spotify; Amazon Music has become the fastest-growing service in the world, and Google continues to pour money into YouTube Music.

3.3 IVOD Industry

The movie and video industry begins in the 19th century with the famous Lumiere brothers. However, in this part of the research, it will be much more important to analyze how technological progress influenced VoD and, as a result, created a modern offshoot - IVoD, which in turn can be considered as digital entertainment.

For a clearer understanding of the next topic, we will consider Video on Demand. Video on Demand (VoD) is a system of individual delivery of television programs and films to a subscriber via digital cable, a satellite, or a terrestrial television network. In addition to the usual VoD, there are also Near Video on Demand and Internet Video on Demand (IVoD). IVoD is directly related to the field of digital entertainment; therefore, we will further consider how this field of video transmission has developed and reached its current level.

IVoD is a way to watch movies, series, or other video content when the video is not watched using a storage medium (for example, a CD or DVD) and is not downloaded as a file, but is viewed directly via the Internet, while the video can be rewound, stopped, accelerated, etc. It is impossible to do this with a similar video broadcast on TV. Some sources suggest IVoD as the television of the future, a kind of hybrid between television and the internet.

The first IVoD sites began to appear almost immediately after the introduction of video streaming technology through Windows Media Player. Many sites that offered movie rentals (Netflix, for example) began to offer movies online through Windows Media Player. But Microsoft's technology did not revolutionize.

The IVoD revolution began in the 2000s when Macromedia (later acquired by Adobe) began experimenting with video in the popular Macromedia Flash Player (now Adobe Flash Player). The first large company to implement IVoD on Flash technology was the American service YouTube (later bought by Google), which in its turn made an unprecedented revolution on the market.

Thanks to YouTube, people began to create video content themselves and share it. Now YouTube, according to Hootsuite (2021), is the second most visited site in the world. It is the largest distributor of IVoD with more than 2 billion users, which is one-third of all internet users in the world (YouTube for press 2021). However, do not forget that YouTube, having such significant indicators, is a free service, although at the moment YouTube itself has the function of buying and watching movies, but this part of this service is not very popular. Because of this YouTube can be classified as an indirect competitor to such IVoD sites as iTunes, Netflix, Hulu, HBO, the recently launched yet incredibly growing Disney+, and

other services that distribute series and movies for money. In the statistical part 4.1.2, some of the listed IVoD services will be analyzed.

3.4 Video Gaming Industry

In 1978, the commercially successful game Space Invaders strongly motivated large investors to pay attention to the gaming industry. This video game was released in Japan on a platform known as arcade machines. From Japan, the game quickly spread to the US, where 60,000 units were sold in 2 years. Thanks to Space Invaders, a boom in the development of arcade machines began, which became the first step in the evolution of the gaming industry.

Together with arcade machines, games were developed on the game console platform. A breakthrough in this direction begins in 1977 when the Atari 2600 game console went on sale. Thanks to Atari's investment, the popularization of computer and video games reached a new level. Some big new players have wanted to find a place in the video game market. Other than Atari, history has included Sega, Nintendo, Sony, and Microsoft as the largest of these players.

Personal computers have become another major gaming platform. The first games appeared in the 1960s. The further evolution of games is closely related to the growth in performance and capabilities of computer hardware. The annual improvement in the quality of the displayed image, and of course the development of computer networks, eventually resulted in the emergence of the internet. With the evolution of networks, the usual single-player games are being replaced by a new generation of games that make it possible to play together with other players.

With the advent of the internet, in addition to the usual single-player games, online projects became a thing. In the late 90s, the growing speed of the internet as well as better access to it made it possible for the browser to become an independent gaming platform. It could now act as an operating shell for games, allowing for playing without installing additional programs. Emerging gaming markets have long had a high proportion of browser-based games due to poor hardware, such as China and Russia.

In Western markets and Japan, low-quality games produced at high speed to occupy the market have been replaced by high-quality games with good graphics and serious gameplay.

The next round in the development of the gaming industry occurred due to the tremendous growth in the popularity of mobile phones, which have become a new platform for people to communicate and a new platform for the distribution of games. Java games that were on mobile phones did not seriously compete with browser, client, or social games. However, since the end of the first decade of the 2000s, the emergence of smartphones, under which powerful projects could be developed, opened the mobile gaming market to the industry in all its glory. It is mobile games that are currently considered by many to be a promising market that can generate maximum profits with a low entry threshold.

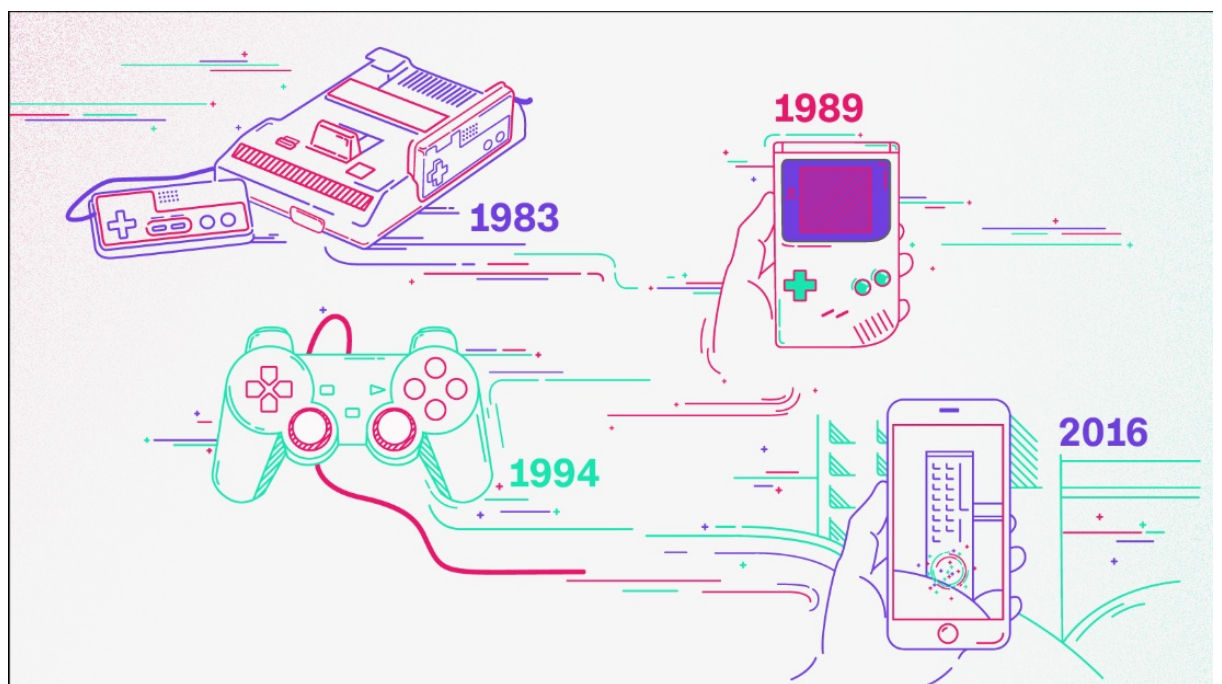


Figure 3. Brief History of Gaming (StopGame 2018).

Revenues in the gaming industry are divided into two main sources, namely hardware such as consoles, processors, controllers, and other accessories, and software such as games and services.

The main players in the video game market now are:

- Sony Computer Entertainment (Japan)
- Tencent Holdings Limited (China), the current market leader
- Microsoft (USA)
- Nintendo Company Ltd. (Japan).

4. Findings

This chapter will present the main findings regarding the digital entertainment industry, statistics, and identification of major trends. The impact of the Covid 19 pandemic will be analyzed in this chapter. Trends in the monetization and distribution of content will be considered as well as intermediate results in specific areas.

4.1 Statistics

This section will provide statistical data for each of the considered areas of digital entertainment, as well as an analysis of this information.

4.1.1 Music Industry Statistics

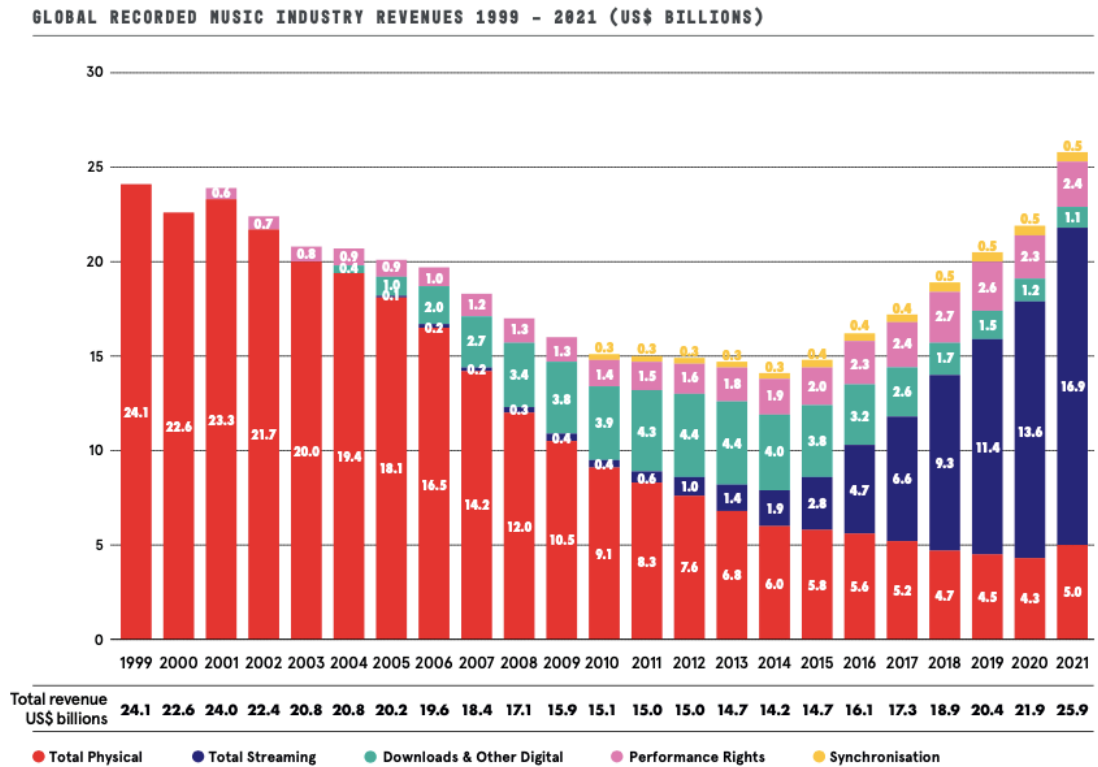


Figure 4. Global Recorded Music Industry revenues 1999 – 2021 (IFPI 2022).

In 2021, the global music industry revenue increased by 18.5% to \$25.9 billion, according to the Global Music Report. The market finished the year in positive territory, and even despite the decline in revenue from physical media in 2019 (4.7%), in 2021 the revenue from physical media exceeded even the figures of 2018, amounting to \$5.0 billion. However, the reduction in performance rights by 10% is still preserved, although compared to 2019, income has grown, it is still less than "pre-Covid indicators".

All the losses associated with the pandemic were more than compensated by digital gains. At the end of 2021, Spotify, Apple Music, and other platforms provided 65% of the revenue of the entire industry, amounting to more than \$16.8 billion. Of these, the subscription model accounts for 47.3% of the money, and the advertising model accounts for 17.7%. The paying audience of streaming

reached 523 million users. Streaming revenue jumped 24%, including 19.1% from subscriptions.

GLOBAL RECORDED MUSIC REVENUES BY SEGMENT 2021

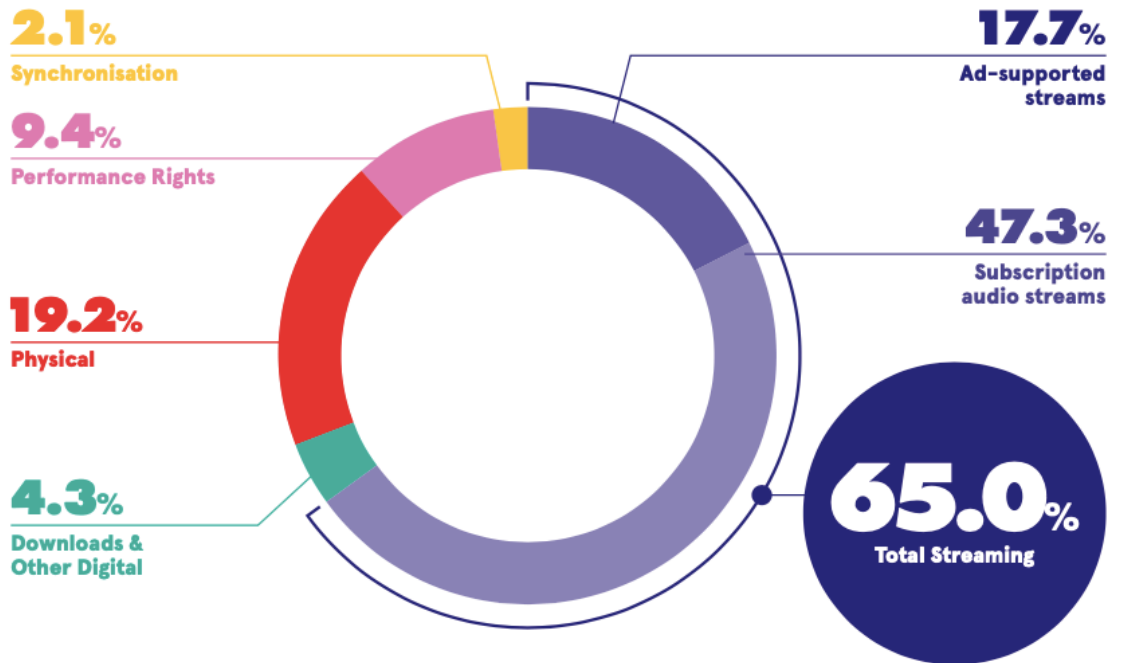


Figure 5. Global Recorded Music revenues by Segment 2021 (IFPI 2022).

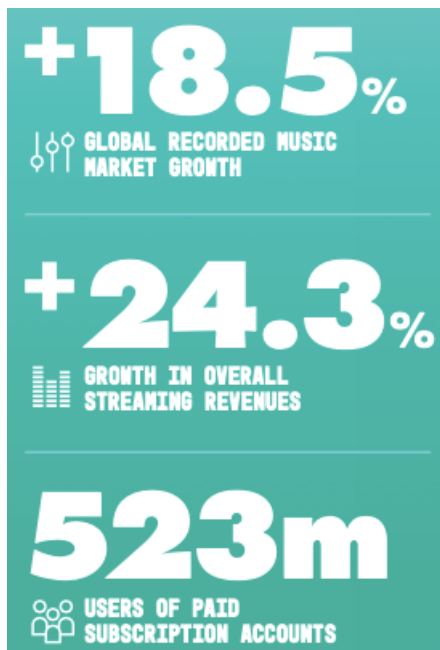


Figure 6. Main Points of Music Industry 2021 (IFPI 2022).

In 2015, streaming brought in only \$2.8 billion in revenue, half as much as physical media (\$5.7 billion). Over the years, the volume of the segment has increased by more than 6 times. At the same time, revenue from downloads and other digital formats has continued to decline, dipping from \$1.5 billion to \$1.1 billion since the start of the pandemic in 2019. Thus, the music consumption model has almost completely shifted from “ownership” to “access”. Streaming is currently the leading direction in the entire music industry.

Physical, in its turn, although occupying 19% of the entire market, showed an increase of a corresponding 16%. This can be attributed to the fact that physical retail has returned due to the lifting of restrictions associated with Covid 19. CD sales have grown strongly for the first time in the last 20 years; they have begun to gain significant popularity in Asia, and vinyl continues showing incredible growth, already exceeding an annual growth rate of 50%.

The Synchronization segment, which includes royalties from the use of music in ads, movies, games, and TV, grew by 22% compared to 2019, when the same segment lost 9.4% of revenue due to restrictions that led to the postponement of many projects. This positive trend can be considered as a recovery of business after the Covid 19 situation.

4.1.2 IVOD industry Statistics

First of all, it should be noted that the general statistics of the IVOD industry either do not exist or are used exclusively for internal use by the companies themselves in this market. Therefore, as a compromise in this study, the general statistics of the leading and largest companies present in this market segment will be used. In this case, it is Netflix, which is the oldest and largest distributor of movies and TV shows, Disney+, which already claims to compete with Netflix although it only launched at the end of 2019, and YouTube, which is free and the largest IVOD service in the world but focuses mainly on user-generated content.

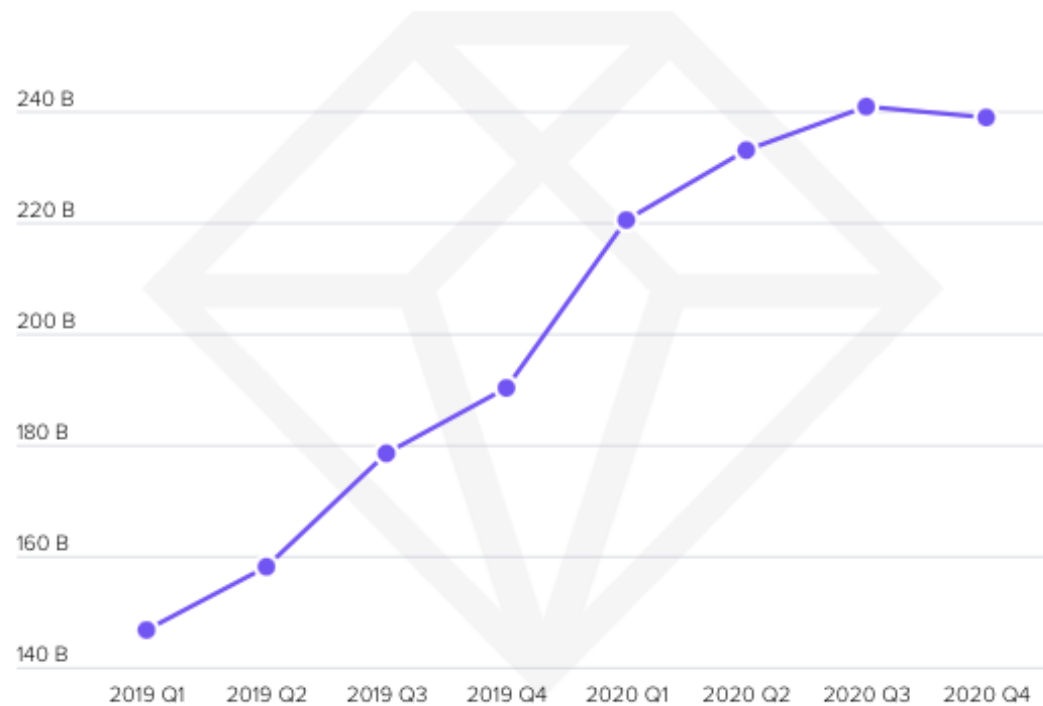


Figure 7. Quarterly Hours Spent in Video Streaming apps Worldwide (Lexi Sydow, 2021).

According to the State of Mobile 2021 Report, in the first quarter of 2019, mobile consumers worldwide streamed 146 billion hours on mobile devices. By the fourth quarter of 2020, they were broadcasting about 240 billion hours - an increase of almost 65% in 2 years. In 2020 alone, the increase was 40% to 935 billion hours.

It is important to understand through which devices people consume video content - the traditional way is TVs that almost everyone has at home, but more and more people consume video content on mobile devices. It also found that consumers turn to mobile devices for all content and activities throughout the day, including a second viewing while watching TV. For example, in 2020, Americans spent 8% more time on mobile devices than they watched TV per day (State of Mobile 2021).

Then there are stunning changes in the film and television business model. People have accelerated the transition from scheduled TV to on-demand subscription services. The proliferation of online streaming applications in 2020 and the first 2 months of 2021 indicates that even major media companies are realizing the power of mobile streaming. Disney+ only debuted at the end of 2019,

and by April 2020 had reached over 50 million subscribers, not least thanks to its success on mobile devices. At the moment, the number of paid Disney+ subscribers has already exceeded 130 million users (see Figure 7).

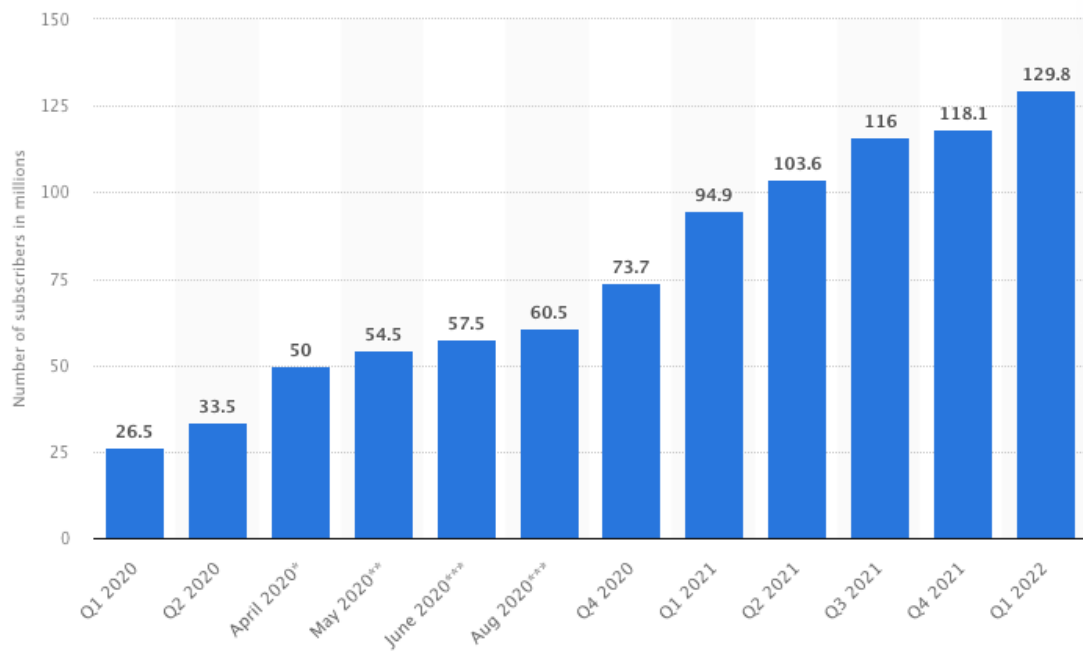


Figure 8. Number of Disney Plus subscribers worldwide from 1st quarter 2020 to 1st quarter 2022 (Statista 2022).

Netflix, on the other hand, is currently in an extremely difficult position, having reached its record growth rates in 2020. In 2021, for the first time in its history, it began to lose subscribers compared to 2020. While Netflix attracted more than 36 million new subscribers in 2020, in 2021 this figure was only 5.5 million. And the company's revenues decreased from \$25 billion to \$14.5 billion, which is even lower than in 2017. There are quite a few reasons for this, including, for example, the growth and development of competitors, drawdowns in content associated with the coronavirus pandemic, and so on. Perhaps in the future, the market expects significant changes in the structure of the largest IVOD subscription service.

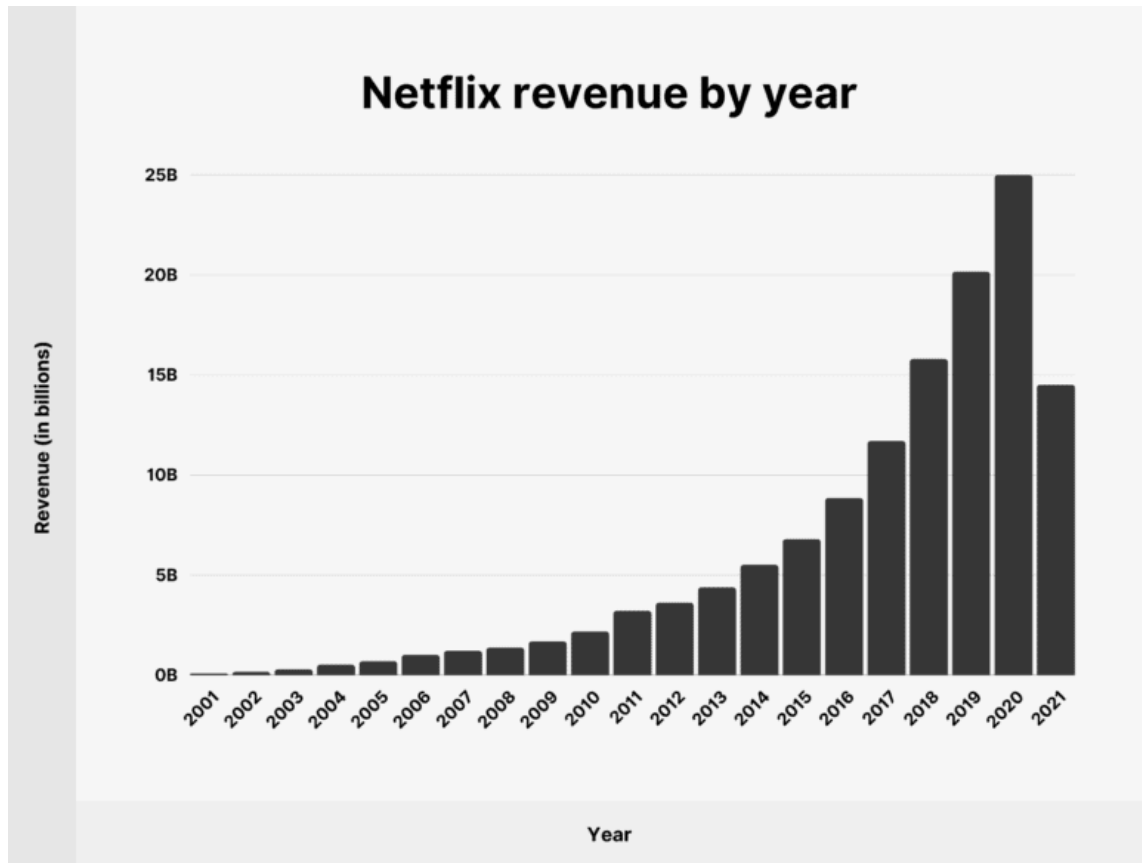


Figure 9. Netflix Revenue by the year 2011-2021 (Brian Dean 2021).

Despite all the success of video giants like Netflix and Disney+, it is user-generated content in short video format that has taken the longest viewing time of users in general. YouTube is the number one video streaming app in terms of time spent on smartphones in all markets analyzed except China, where it is not available.

In some cases, the difference between competing services was huge. Russians watched YouTube on average 30.4 hours per month. MX Player was next at 5.1 hours per month. Meanwhile, consumers in South Korea watched YouTube for 37.9 hours per month, compared to 8.4 hours on Netflix (State of Mobile 2021). The total number of users per month was more than 2 billion in 2020.

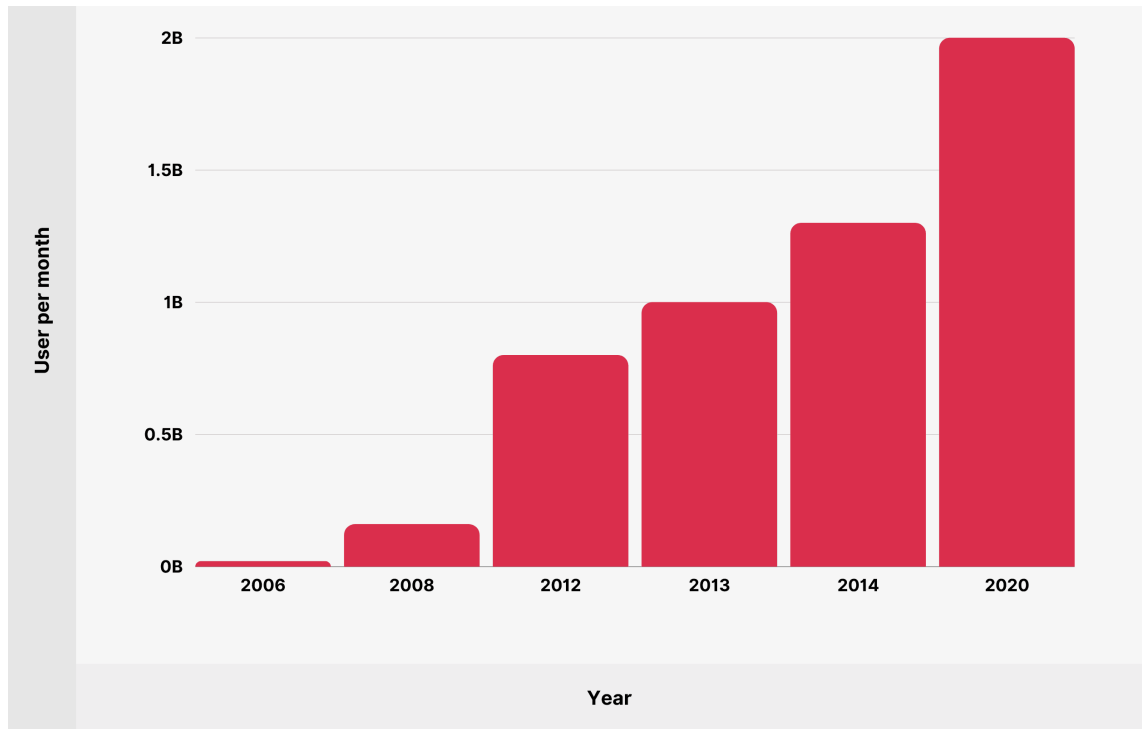


Figure 10. YouTube usage growth 2006-2020 (Backlinko 2022).

4.1.3 Video gaming industry Statistics

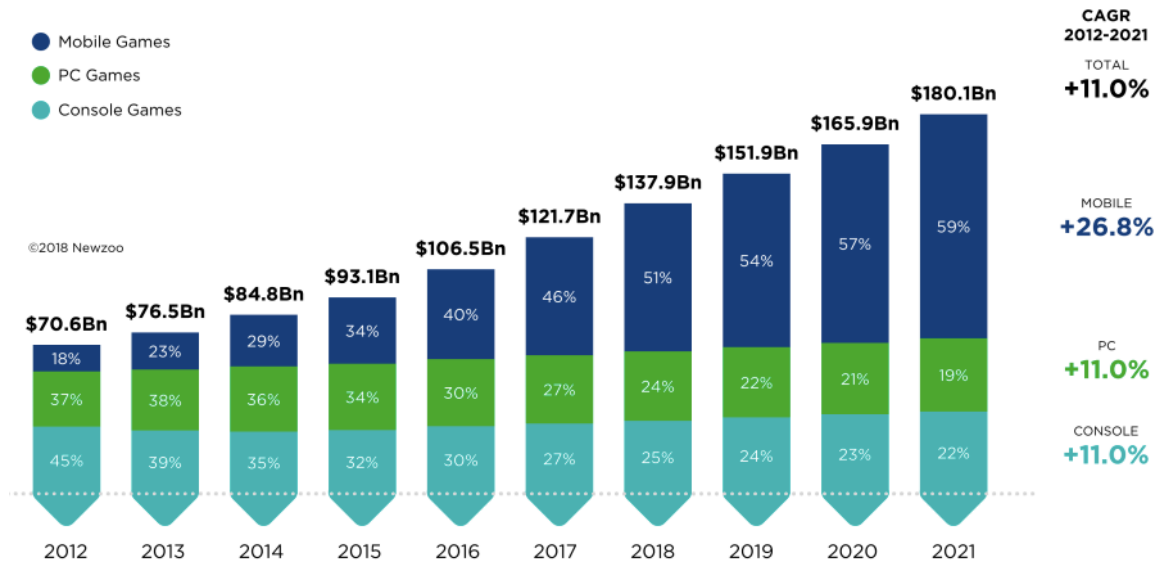


Figure 11. Global Games Market Revenues per Segment 2012-2021 (NewZoo 2018).

Figure 11 contains the forecast for the development of the gaming industry produced by NewZoo in 2018, which collects statistics and analyzes data from the video gaming industry. However, the unexpected pandemic had a strong impact on game development and publishing. Delays heavily impacted revenue across the board in 2021 — mostly on consoles, but also on PCs. Compared to mobile games, console and PC games tend to have larger teams, higher production value, and more collaboration between offices in different countries. Delays for next-generation games (PlayStation 5 and Xbox Series X|S) are challenging, especially for PlayStation, whose first-party titles only pay full price at launch (as opposed to Xbox's more service-oriented strategy with Game Pass). This is exacerbated by the global shortage of semiconductors, which negatively affects the supply of consumer electronics, including next-generation consoles and high-performance PC components. Due to these issues, the console market in 2021 will shrink by 8.9% year on year to \$49.2 billion, while the PC market will shrink by 2.8% to \$35.9 billion. Growth for both of these segments will resume only after this year. It is extremely difficult to build further plans due to the

indefinite period of shortage of semiconductors. The most accurate video gaming market statistics for 2021 are shown in Figure 12.

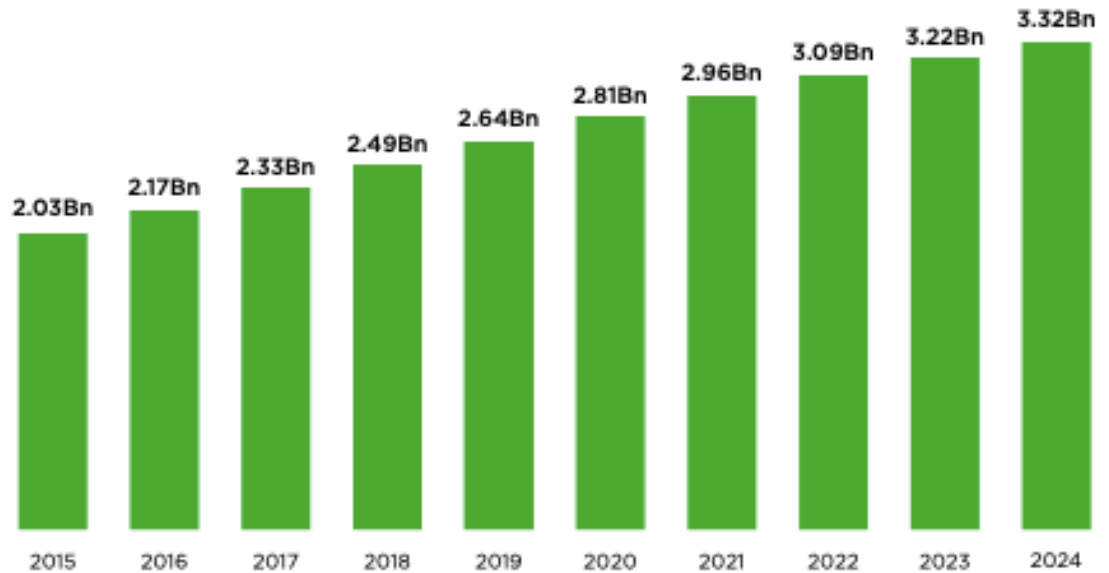


Figure 12. Global Player Forecast 2015-2024 (NewZoo 2021).

According to NewZoo forecast, the global number of players will pass the 3-billion-mark next year, in 2022. That number will continue to grow at an estimated CAGR of +5.6% (2015-2024) to 3.3 billion by 2024. This is a trend as more and more people around the world gain access to the (mobile) internet. By 2024, the growth rate of players will have to slow down as the market begins to peak. By segment, most players play on mobile devices. In 2021, 2.8 billion of the nearly 3.0 billion gamers played on mobile devices. By 2024, NewZoo predicts that the number of mobile players will reach 3.1 billion, surpassing the 3 billion mark, which will be about half of all internet users in the world. By comparison, there will be 1.4 billion PC players in 2021, including browser players who are gradually moving to mobile devices. In 2021, 870 million people will play on consoles. The number of console players will continue to grow into 2024, especially as console games catch on in markets such as China and South Korea, where console games have traditionally been unpopular. Due to the development of the console industry and the emergence of inexpensive variants such as the Nintendo Switch and Xbox Series S, the popularity of consoles in these regions is starting to

increase. It is also worth clarifying the fact that almost all players on consoles and PC are also players on mobile platforms, as this gives them essentially instant access to their favorite hobby.

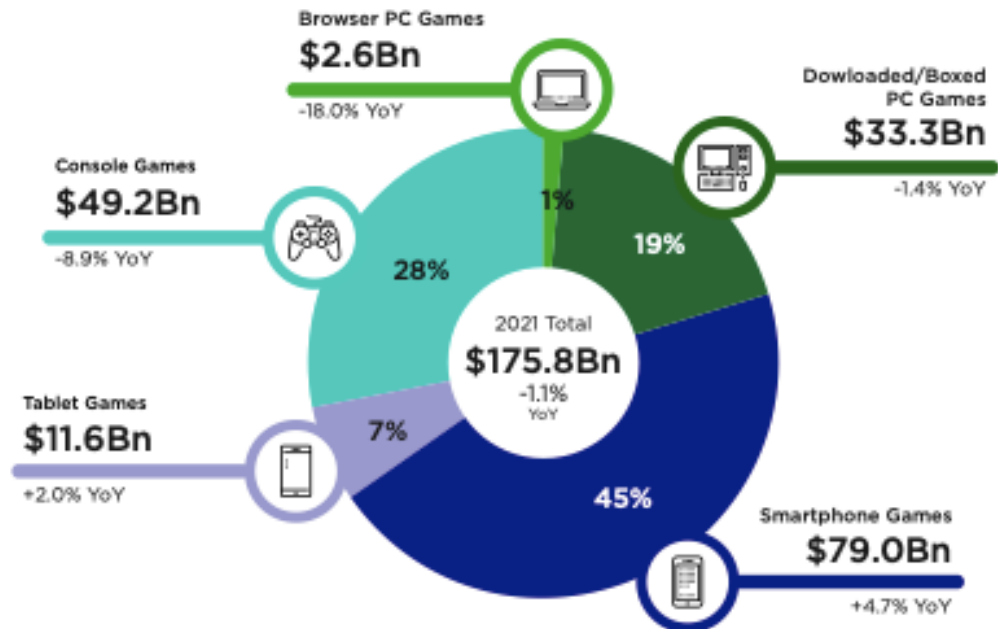


Figure 13. Global Games Market 2021 per Segment (NewZoo 2021).

4.2 Distribution / Monetization

In the modern digital entertainment market, there are several options for distributing and monetizing digital content. This part will be an overview of the most popular options at the moment.

4.2.1 PayPlay

PayPlay - a service or product is available only after its purchase.

This is the oldest type of distribution of goods and services in the field of digital entertainment. This "classic" type of distribution is common in many digital entertainment markets but it is increasingly receding into the background. Companies are moving to newer ways of distributing their goods, which we will discuss next. An example of this type of content distribution is:

- Physical distribution stores where one can buy a disc with a music album, video game, or movie.
- In an online digital content store, such as Apple's iTunes store, where one can separately purchase music albums or even songs from selected artists, or a specific movie.

In the field of video games, the use of a similar content distribution model can be seen everywhere on smartphones in Google Play or the AppStore. One can separately purchase a mobile game for its full price. Regarding game consoles or PCs, there are online stores where publishers distribute their products with the help of a platform holder (Steam, Microsoft Store, PS store, Epic Games, etc.)

4.2.2 Advertising

Advertising - in this case, the program or service is free, but the user is shown ads inside the program or service. The display of these ads produces earnings.

This type of distribution was originally characteristic of the TV format when, as you watched a movie or a program, advertising was shown, due to which the content was mainly monetized. In the realities of the modern digital entertainment industry, the type of content monetization through advertising has been implemented incredibly successfully. When listening to music or watching a video on YouTube (Google's streaming service), between or during videos, the viewer/listener is shown ads, which partially monetize the content in this service.

In the video game industry, this type of monetization is mainly characteristic of free mobile games and, as practice shows, it is quite successful, since embedded advertising can be found in most of these types of projects.

4.2.3 Subscription

A subscription is a monthly payment for the right to use a product or service from a certain set provided by a digital distributor. There are also single subscriptions for one specific product and a different period (including unlimited).

This type of distribution is now gaining significant popularity in all areas of digital entertainment, in the case of the music industry, as mentioned earlier, by 2023 it will have to account for 90% of the profits from the entire music industry, Apple Music and Spotify are striking examples of such subscription music services.

In the film and video industry, this trend in distribution is also very clear. Such services as Netflix, Amazon Prime, HBO max, Disney+, etc. have taken over the market, and now every movie producing company wants to acquire its subscription streaming service. It is also worth noting that Google has been extremely successful in implementing a subscription monetization model into its YouTube service since YouTube content is mostly free and produced by independent creators and monetized through advertising, Google provides a monthly subscription that completely removes all ads and makes viewing content more pleasant.

Subscription services also appeared in the video game industry quite a long time ago. However, they have received significant development only in recent years, as mentioned earlier, Microsoft became a pioneer in this area with its GamePass service, which changed the idea of future development in the field of video game distribution. On the market, one can already find analogs of the subscription service for video games from Apple (Apple Arcade), Google (Google Play Pass), and Sony (PlayStation Plus).

4.2.4 Microtransactions

Microtransactions / in App Purchases establish that the service or program can be both paid and free. However, the user will receive only the basic features installed by the publisher. To gain access to additional features, the user will need to purchase additional content from the built-in online store.

In the field of digital entertainment, this type of monetization is peculiar only to the video game industry. However, in this area, it is rapidly developing and combining with the previous types of distribution listed above. There is no need to give specific examples, since most modern video games, especially with multiplayer elements, allow for a new game character for a cost, buying game

currency or resources, or any other game content that should diversify or simplify certain game elements.

4.3 Corona Pandemic impact

Many industries have been severely impacted by the COVID-19 pandemic, but for the digital entertainment sector, the economic impact has been largely neutral and even positive for some industry segments.

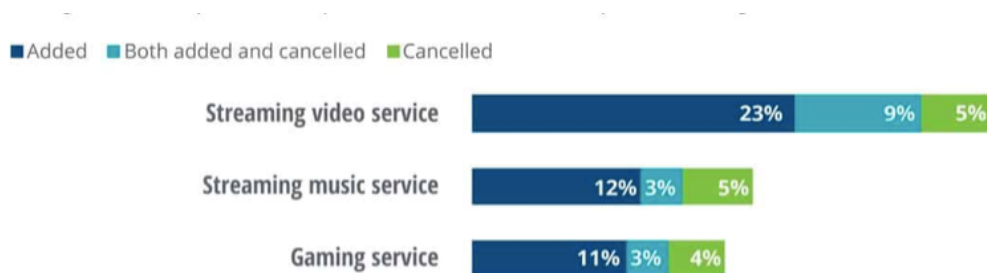
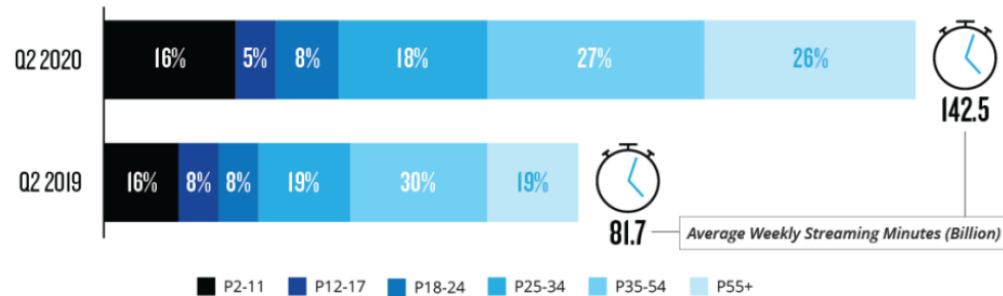


Figure 14. Changes made to paid subscriptions since the COVID-19 pandemic began (Deloitte Insights 2022).

Judging by the statistics, the digital entertainment industry has only multiplied its performance. Millions of people were locked up at home in isolation and, in this regard, were provided to the digital entertainment industry, and, arguing superficially, this had an extremely positive impact. However, it is also worth considering that the production of movies and series had to be postponed, music artists lost income from concerts and other public events, and entire game development teams switched to remote work from home. While during lockdowns or other restrictions the market as a whole felt relatively good, especially in comparison to other business sectors that suffered much more, now there is a certain stagnation of content in the field of digital entertainment. How key companies in this market will cope with the consequences will be seen in coming years.

STREAMING VIDEO SHARE OF TIME SPENT BY AGE



Source: Nielsen Total Audience Report Special Work from Home Edition, Nielsen Custom Streaming Meter Usage Report

Figure 15. Streaming video share of time spent by age 2019-2020 (Nielsen 2020).

It is safe to say that the pandemic has accelerated the transition to video-on-demand consumption, and most experts expect streaming to continue its growth, even in post-COVID times. According to the 2020 Mobility Report, the average mobile user consumes 9.4 GB of mobile data per month, and 60% of that traffic is video. By 2024, monthly data is projected to grow to 21 GB, with video accounting for 74% of data consumed.

5. Conclusion

After completing this study, the initial research question of what are the main changes and trends in the digital entertainment market reached.

To summarize this research, first, consider the digital entertainment industry as a whole. With the development of the mobile internet, more and more people are starting to use digital entertainment, and the industry shows a stable average annual growth of about 11%. The main trends are the development of subscription systems and increased content monetization through advertising. The coronavirus epidemic has become a kind of catalyst and has attracted a huge

number of users during the pandemic, but now the industry is experiencing a lack of content, which is now showing on the key players in the market such as Netflix, Sony, and Microsoft. In general, the future of the industry is viewed positively.

Considering the entertainment industry from the point of view of its largest industries, the following can be concluded.

5.1 Music industry

In four markets with more than 3 million Apple Music users (US, UK, Canada, and Japan), iPhone ownership is at least 30%, which means that Apple owners prefer to use the built-in music streaming application rather than install third-party ones. Amazon Music subscriptions have also surged, thanks to devices the company sells such as smart Echo speakers. Google adheres to a similar policy - Home speakers and Pixel smartphones promote YouTube Music. According to experts, Spotify will need to make deals with technology manufacturers to maintain its position and continue to develop.

An older audience first buys a smart speaker and then subscribes to a streaming service - not vice versa. The next phase in the development of services is to move those who listen to the radio to streaming.

5.2 IVoD industry

This industry has also suffered the most from the Covid epidemic and has received record growth rates in recent years, now giants like Netflix are starting to have problems releasing content due to the almost complete cessation of production during the pandemic.

Also, this area of the IVoD industry has an extremely high competition rate, new players successfully implement the experience of market leaders and add new solutions. However, it is unlikely that anyone will overthrow YouTube anytime soon because of its specific content and free video distribution model. Of course, there is TikTok in the market showing impressive growth rates, but one can easily remember how Vine skyrocketed and just as quickly fell out of favor. In any case,

these parts of the IVoD market are worth observing because of their extremely high revenues and the implementation of monetization methods.

5.3 Video Game Industry

Now key players in the markets are betting on services and subscription systems such as GamePass from Microsoft, PS+ from Sony, Apple Arcade from Apple, etc. There are more and more of such gaming subscription services, and now almost every major publisher has its subscription service. Most likely in the future, there will be more and more of them.

It is also likely that in the coming years, the mobile games market will be forced out of the trend of the gaming industry by more advanced human-computer interaction technology. It can become both virtual or augmented reality in the current implementation, and virtual reality with full immersion.

5.4 Suggestions for future research

Since the Digital Entertainment Market is constantly evolving, the relevance of research on this topic can change extremely quickly. It is worth compiling relevant research every year. It is also worth paying attention to other areas of digital entertainment not covered in this study. Examples of these include online gambling, social networks, books, etc. Another extremely interesting topic for research may be the impact of the development of the digital entertainment market on the environment. This topic is extremely ambiguous since at first glance the impact seems to be mostly positive due to the reduced use of resources. These goods essentially do not have a physical shell but they also cost consider the increased usage of electricity. Another interesting topic for research is "piracy" - the illegal use of digital content and its impact on the industry. In general, the topic of digital entertainment is deep enough for future research.

References

- Smith, E. 2006. Using Secondary Data in Educational and Social Research, Accessed 03.01.2021 <https://ebookcentral-proquest-com.ezproxy.puv.fi/lib/vamklibrary-ebooks/reader.action?docID=409777&query=Secondary+data>
- Bukht, R. & Heeks, R. 2017. Defining, Conceptualizing, and Measuring the digital economy. Centre for Development Informatics, SEED. Manchester. <https://diodeweb.files.wordpress.com/2017/08/diwp68-diode.pdf>
- Halstead, R. 2014. Delivering public services in a connected world. Cisco. https://www.cisco.com/assets/global/UK/public_sector/new/pdfs/DigitalPublicServicesWebSinglePageV1.pdf
- Evans, P. & Gawer, A. The Rise of the Platform Enterprise: A Global Survey. The Center for Global Enterprise. https://www.thecge.net/app/uploads/2016/01/PDF- WEB-Platform-Survey_01_12.pdf
- Turcan, R. 2011. Toward a theory of international new venture survivability. Journal of International Entrepreneurship. https://www.researchgate.net/publication/225264018_Toward_a_theory_of_international_new_venture_survivability
- Al-Debi, Mutaz M. & El-Haddadeh, R. & Avison, D. 2008. Defining the Business Model in the New World of Digital Business. AMCIS 2008 Proceedings. 300. <https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1350&context=amcis2008>
- Tapscott, D. 1996. The digital economy: promise and peril in the age of networked intelligence. McGraw-Hill.
- OECD. 2002. Measuring the information economy 2002. OECD. Paris. <http://www.oecd.org/digital/ieconomy/1835738.pdf>
- Magnusson, J. 2015. Här är årets alla nyord. Språk Tidningen. <https://spraktidningen.se/nyord2015>
- Ofcom organization, August 2010. Consumers spend almost half of their waking hours using media and communications. <https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2010/consumers-spend-almost-half-of-their-waking-hours-using-media-and-communications>

- Newzoo, Global Games Market Report 2021, Jul 1, 2021.
<https://newzoo.com/insights/trend-reports/newzoo-global-games-market-report-2021-free-version/>
- Deloitte: COVID-19 Accelerates Cycle of Paid Entertainment Subscriptions and Cancellations, Jun 23, 2020. <https://www.prnewswire.com/news-releases/deloitte-covid-19-accelerates-cycle-of-paid-entertainment-subscriptions-and-cancellations-301081484.html>
- Newzoo, Global Games Market Report 2018, Jun 14, 2018.
<https://newzoo.com/insights/trend-reports/newzoo-global-games-market-report-2018-light-version/>
- Brian Dean, Netflix Subscriber and Growth Statistics: How Many People Watch Netflix in 2022? Oct 7, 2021. <https://backlinko.com/netflix-users>
- Statista, Number of Disney Plus subscribers worldwide from 1st quarter 2020 to 1st quarter 2022, February 2022.
<https://www.statista.com/statistics/1095372/disney-plus-number-of-subscribers-us/>
- Nielsen, Going Swimmingly: Streaming Continues to Grow Among Consumers, August 24, 2020,
<https://www.nielsen.com/us/en/insights/article/2020/streaming-video-aug-2020-milestone/>
- IFPI Global Music Report (2022 edition) <https://globalmusicreport.ifpi.org>
- Hootsuite, Digital 2022 Global Overview Report, 2022
<https://www.hootsuite.com/resources/digital-trends>
- Google, About YouTube 2022 <https://about.youtube>
- Brian Dean, Backlinko, How Many People Use YouTube in 2022?, Sep. 07, 2021 [New Data] <https://backlinko.com/youtube-users>
- Lexi Sydow, Data.ai, A Year of Bingeing: Time Spent in Video Streaming Apps Hit Nearly 1 Trillion Hours in 2020, February 17, 2021,
<https://www.data.ai/en/insights/mobile-minute/1-trillion-hours-streaming-mobile-2020/>
- Data.ai The State of Mobile 2020, March 19, 2021
<https://www.data.ai/en/go/state-of-mobile-2021/>
- Robirt Kong, 2017. What is the Fulfillment Process for Digital Goods? Fastspring <https://fastspring.com/blog/fulfillment-process-digital-goods/>