



# Digital distribution of video games for PC

A SWOT analysis

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<p>Digital distribution inom tv-spel växer ständigt, och inför nya koncept och funktioner för varje år. Med denna utveckling förbättras många av de funktioner och tillägg som skapats för systemen, både för spelutvecklare och spelare. Medan flera av dessa förändringar är välkomna förbättringar som skapar nya möjligheter , har flera av dessa nya tillägg ännu oklara ändamål, vilket skapar möjliga hot för den digital distributionen och väcker oro bland spelarna.</p> <p>Syftet med denna studie är att identifiera de viktigaste möjligheterna och hoten för digital speldistribution, men också att skapa en förståelse för vilka styrkor och svagheter som finns i jämförelse med traditionella former av spelfördelning. För att presentera den väsentliga informationen samt resultat , har analysen av denna studie gjorts i form av en SWOT-analys för att separera de olika aspekterna av forskningen.</p> <p>Denna studie är begränsad till digital distribution för PC , och distributionstjänster som fokuserar på PC-spel.</p>	
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<p>Digital distribution of video games is constantly growing, and presents us with new concepts and features for each year. With this development, many of the features and additions are created to further improve the systems for both game developers and players. While many of the changes are received as welcome improvements and opportunities, several recent additions still have an uncertain future, which creates both possible threats for digital distribution and concern among players.</p> <p>The purpose of this study is to identify the main opportunities and threats for digital game distribution, but also to create an understanding of what the strengths and weaknesses are in comparison to traditional forms of game distribution. To present the information and results, this study has been made in the form of a SWOT analysis to separate the different aspects of the research.</p> <p>This study is limited to digital distribution for PC, and distribution services that provide computer games.</p>	
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# 1 INTRODUCTION

Video games are going digital, there is no question about it. Digital sales are steadily increasing, while physical retail sales are decreasing. A selection of games have found their place in digital stores, and can only be bought exclusively from online stores. Even when purchasing retail copies of a game it is unlikely that the game in its entirety will be found on a single disc or cartridge. Today's games have expanded, and their contents extend beyond what we used to receive in paperboard packages before the internet became widespread. This form of distribution does not only apply to PC games but to consoles as well, and today each of the newest consoles have their own online stores.

While PC serves as the leading platform for online services, we have reached a point where the entire video game industry has embraced and merged with digital distribution. Ex-Ubisoft game designer, Patrice Désilets describes the situation of the AAA game industry as being at a crossroads. "... deep down, nobody cares about not having CDs any more. The Future is digital, and there's nothing you can do about it" Désilets points out (Polygon, 2013).

With games today, a digital purchase can differ in many ways; it is no longer about simply buying a game, but from where you buy it, and in which form you buy it. Customers are given more options and more freedom than ever in choosing how to acquire games online. Different services can provide different benefits such as social features and added incentives. Distributed content can be split up, bundled up, sold early, or added later on. With no pre-determined guidelines on how games should be distributed online, it seems that almost anything goes. This is where opportunities become nearly endless, but at the same time a certain sense of concern starts to show. Is the freedom and flexibility of digital game distribution necessarily a good thing for everyone involved? Are developers simply structuring their games around maximizing revenue at the expense of the unknowing customers? This thesis will focus on the cause for these questions, and possibly try to find an answer or a solution to them.

## **1.1 Research topic**

The purpose of this study is to identify the main opportunities and threats for digital game distribution, but also to create an understanding of what the strengths and weaknesses are in comparison to traditional forms of game distribution.

## **1.2 Motive for research**

Since a young age video games have been a part of my life. I was first introduced to games on the PC with early MS-DOS games that sparked my interest for the hobby. I can still remember the first time I bought a game with my own money that I had saved up. The game was Oddworld: Abe's Oddysee for the PC, which came in a large colorful cardboard box. Everything I could ask for and more was contained within that box, which kept me entertained for weeks. Since then I have spent a large portion of my time and money on countless consoles, handhelds and game peripherals. New devices have come and gone, but the PC has remained my personal preference for playing on.

Today I am still very much involved with games, and follow industry news on several websites and forums dedicated to games. These sites help me keep up with the rapidly changing industry, and up to date on matters that revolve around my hobby. During the last couple of years I have noticed an increasing trend of criticism and rants about where the game industry is heading. While I do enjoy the assets and convenience that services such as Steam present me with, I have become increasingly worried about what the future of my beloved hobby will hold.

The market is filling up with content of questionable quality, and even flagship titles are being released with bugs and glitches that need months of patching. The industry has changed, and in many cases the idea that titles are made "for gamers by gamers" seems to be lost. We are starting to see games where developers compromise design and gameplay by forcing the ugly concept of 'paymium' onto the player. The way developers are given new tools to maximize their revenue with new business models is a worrisome situation.



In the end, all of these concerns lead back to the freedom and flexibility of digital distribution, and how developers are using this liberty. This is what makes it an interesting and timely subject to study. On the bright side, this year marks the release of a remastered version of Oddworld: Abe's Oddysee. It won't come in a cardboard box this time, since it will be a digital-download-only title, but if not for digital distribution it probably wouldn't be released at all.

### **1.3 Purpose of the thesis**

With this study we aim to identify the issues revolving around digital distribution of games. In order to do this, we will dissect and categorize the important aspects that need to be taken into consideration for this study. The goal of the analysis is to create an understanding of what digital game distribution consists of, and how each factor affects us customers, and the video game industry as a whole.

### **1.4 Structure of thesis and method**

Issues of the modern video game industry have been brought up before and researched to some extent. However, many of the recent shifts and transformations have made a large impact on the distribution of video games, and are still too recent to have been widely researched. A large portion of the information in this thesis relies on recent online sources in order to provide the latest material.

The second chapter of this thesis will focus on the background and history of video games. The purpose of the chapter is to create an understanding of where video games started and how quickly this form of entertainment has advanced.

After the rundown of video games in general, I will move on to the digital distribution of games which plays the key role in this thesis. This chapter also introduces the three most important distribution systems for this analysis, Steam, Origin and GOG.com.

After a brief insight on the history of games, and looking at the current stage of game distribution, this thesis will focus on classifying the elements that define digital distribution in games. The entirety of the third chapter is devoted to dissecting digital

game distribution into a SWOT analysis, in order to create an understanding of the subject matter. In this chapter, the key pieces of information will be brought to light by structuring digital game distribution into strengths, weaknesses, opportunities and threats.

Starting off with the strengths, I will classify what can commonly be considered to be the pros of digital distribution. This section primarily focuses on the convenience of a digital copy of a game, and the increasing selection of digital games. After this, I'll also explain how additional content has been implemented in order to expand games further.

Stating what is and isn't weaknesses when it comes to digital distribution is a tricky task. Within the weaknesses section of the SWOT analysis, I'll explain what can be considered as cons, and in certain cases compare these issues to the physical form of distribution. Since DRM serves as the largest of these problems, it will be discussed in larger detail in a separate subsection.

Within the section that deals with opportunities, I mainly approach the flexible nature of digital distribution and how it serves as a basis for many new opportunities. Both pricing and different release approaches are discussed as part of this adaptability. In addition, this section describes the concept of a multipurpose distribution service such as Steam. I will also mention notable upcoming releases and plans that are in the works, such as cloud gaming.

In the final section of the SWOT analysis, I will look deeper into the threats of digital distribution. Here I have brought up downloadable content once again, but this time focusing on the issues and possible problems. I will discuss the concern of rushed game releases, and shed light on the threats of early access and quality control. Finally I present the subject of digital ownership, and what it actually means.

Thereafter follows the fourth and final chapter that comprises of my findings and conclusions. This section will include my thoughts on where matters stand in gaming, and where the near future might lead the industry. These findings and conclusions will be based on the information found in the SWOT analysis.

## **1.5 Delimitation**

When narrowing down digital distribution to games alone, it still remains a very wide concept. Today each console, tablet and smartphone with internet access has its own online store where games can be bought. Microsoft, Sony and Nintendo all have their own official distribution platforms included with their consoles. PC is not only an early innovator of digital distribution, but also supports multiple distribution platforms for the user to choose from. This makes PC a valid focal point, which in this study not only refers to Windows, but operating systems Mac and Linux as well.

By PC Games we primarily mean any major production that can be downloaded, installed and played on a computer. We will not put emphasis on Flash-games or any type of game that is played through an internet browser. While there are several distribution platforms on the PC, the ones that will be looked at in detail are Steam, GOG, and Origin, since they can be considered the substantial ones and provide high contrast in comparison to each other.

## **1.6 Terminology**

In order to fully understand and be able to follow what's going on in the modern game industry, certain terms are important to understand. While it is often described that gamers have developed their own language, this section will only focus on the essential game related lingo used within this thesis.

### **AAA Game**

A AAA game, or “triple-A game”, is generally a game developed by a large studio, funded by a large budget. These games tend to have a multiple-million dollar marketing budget, and are estimated to sell more than a million titles. These games are made either for the major console platforms or PC.

### **Gamer**

In this thesis the term gamer will be used for a person who enjoys and plays games as a hobby or on a regular basis.

## **DRM**

DRM stands for “Digital Rights Management” and refers to a software system that serves as copyright protection for digital media. The purpose of DRM is to prevent redistribution of digital media, and restricts copying digital content. Digital Rights Management is usually associated with PC games, and works as a method to prevent piracy. On PC’s, DRM has a long history and has been used in various forms. While DRM targets pirates, it is usually the paying customer who it affected by it.

## **Bug**

In software and gaming terms a bug is failure, flaw or an error that appears in the game. It causes to game to act in an unintended way, and is usually the result from a mistake in the source code or the design of the game. A game can contain any number of bugs with varying effects on the functionality of the game. A game that contains large amounts of bugs is usually described as buggy, or in the worst case even incomplete or broken.

## **Shovelware**

Shovelware is a derogatory term that refers to an array of software emphasizing quantity rather than quality. These games are usually hastily made in order to create quick profit.

## **Paymium**

Paymium is still a relatively new concept, but is expected to become increasingly more widespread in the near future. A paymium game is paid for up-front like any other game, but charges for extra features via in-game purchases.

## **2 VIDEO GAMES, THEN AND NOW**

In this chapter we will take a brief look into the history of video games in general before moving on to game distribution. In order to create an overview of the industry as a whole, we will start from the beginning in order to understand the origins of this matter. Before video games reached its mainstream popularity and what the industry is today, there was the cathode ray amusement device.

### **2.1 Retrospective**

In 1958 William Higinbotham first announced "Tennis for Two", an interactive game where two people could use separate controllers connected to an analog computer with an oscilloscope screen. By using rotating dials and buttons, players were able to play a simulated two-dimensional game of tennis that hundreds of visitors lined up for to experience.

Higinbotham, who later died in 1994, wished to be remembered by his work on radar displays and efforts to slow the nuclear arms race. However, little did he know that he would eventually become that man who established an entire industry and a new form of entertainment (Brookhaven National Laboratory).

Jumping ahead to the late 1970s and early 1980s we can see the industry shaping up and the potential scale and succes it would create. It is not without reason that this era is widely concidered to be the golden age of gaming, with multiple commercially successful titles such as Pong, Space Invaders, Asteroids and Pac-Man.

As home consoles rapidly grew in both popularity and performance during the 1990s, the PC also found its place in gaming. With the addition of 3D graphics in games, the PC had a large advantage in performance over the current consoles. With higher

resolution, disk storage and processor speed the PC became a mature and powerful system for games during this decade.(Mark Overmars, 2012)

Over the years the video game industry has experienced an explosive growth, and has established a clientele that comprises of all ages and genders. Statistics gathered by the Entertainment Software Association (ESA) show that 58% of Americans play computer and video games, and 43% of game players believe that games give them the most value for their money in comparison to movies and music. In 2012, U.S. consumers spent a total of 20,77 billion dollars on the game industry (ESA, 2013).

## **2.2 History of digital game distribution**

Today we take it for granted that any form of entertainment media can be obtained through downloading or streaming, including video games. In this chapter we will take a look at how digital distribution was introduced and implemented for the video game industry.

Before internet connections became widespread, a few services attempted to deliver the first examples of digital distribution. Until now the physical model had been the dominant form of distribution in games. In 1981 Intellivision released the PlayCable, an adapter for the Intellivision console that allowed playing games through the cable TV signal. However the main problem that caused the downfall of the PlayCable within 2 years was the lack of RAM memory that quickly made the console insufficient over time. (Escapist Magazine, 2013)

While other consoles later on in the 90s offered similar peripherals and services such as the Famicom Modem by Nintendo and the Sega Channel for the Sega Genesis, it was the PC that took a more promising step towards the idea of digital distribution. Many PC users were introduced to downloading games in the form of freeware titles as the internet became more accessible. These were free games usually created by a single developer or a small team available for download without monetary cost. In 1997 game

developer Cavedog utilized distributing content online and offered additional downloadable content for their game Total Annihilation. (Gamedonia, 2013)

By the early 2000s, internet connections had become fast enough for feasible game distribution online. One of the earliest innovations of digital distribution on PC was Stardock Central, introduced in 2001 by software developer Stardock. This software delivery system allowed Stardock to sell their own PC titles, including Galactic Civilizations, which was the first commercial game launched simultaneously at retail and online (Gamasutra, 2013).

Only a few years later Steam released its own digital distribution in 2004, followed by other services such as GOG.com, and Origin, which would establish the rise of digital game distribution as we know it today.

## **2.3 Digital distribution today**

In this day and age we are accustomed to obtaining media online. Millions of apps are accessible for smartphones, albums can be downloaded directly to music players, and entire movies can be purchased or even streamed directly by a simple mouse click.

Today there are over 20 active digital distribution stores online for PC games alone, providing everything from small indie games to AAA titles. With the increasing popularity, more of these distribution services are popping up regularly and are getting harder to keep count of. This makes it difficult to pinpoint exact global statistics on both services available, and sales statistics for each digital purchase.

Back when games were only released as physical copies there was no other way to obtain the game than picking it up from the store. While the same option still applies today, we also have the option to obtain any game without leaving the house. Breaking down the process of making a digital purchase usually looks the same regardless of the service. The buyer selects his game and chooses from a variety of supported payment

methods. In addition, many of these online stores provide the option to add funds tied to an account which then can be spent inside the service. After successfully purchasing the game, the owner can start downloading the game straight to the hard-drive. Once the game has been downloaded and installed, the game is ready for launch. The same process applies for any downloadable content sold on the service. This standard model of purchasing a game has however evolved during the last couple of years, and different methods in both releases and purchases have started to appear. Game publishers today have more options than ever before to provide its customers with a variety of content, in any almost form they see fit.

Giving control to the internet and its users is the only logical choice that a modern corporation can take on. Pre-internet thinking in terms of direct communication with consumers is harmful; the internet is much better at organizing individuals than a corporation will ever be. (Newell, Gabe. 2013)

In an overview of the total digital games market, SuperData Research provides us with the latest numbers from 2013, which can be seen here, (Figure 1).

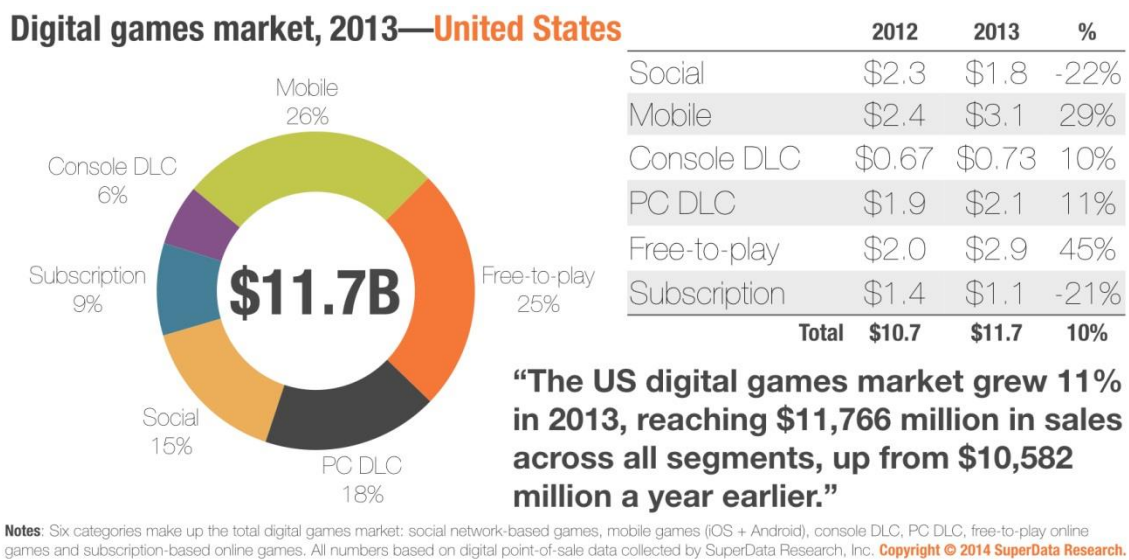


Figure 1. Digital games market, 2013-United States. SuperData Research. 2014

### 2.3.1 Platforms

When it comes to digital distribution on PC, there are three notable distribution systems that stand out and should be mentioned. Steam, Origin, and GOG all share a similar



concept and basis, but at the same time focus on different strategies and solutions. What especially sets these services apart is the contrast in business models, and how the respective community has responded to it. For these reasons Steam, Origin, and GOG will serve as the main distribution services in this study.

### **Steam**

There is no denying that Valve's digital store, Steam is the king on the digital distribution market, especially for PC. While Valve does not release sales figures on Steam, it is estimated that over half to 70% of the market for downloaded PC games is controlled by Steam (Forbes, 2011). In October 2013, Valve announced that their digital distribution site has over 65 million accounts, a 30% growth in active accounts since 2012. Valve's co-founder and president, Gabe Newell states that the main goal of Steam has always been to increase the quality of the user's experience, and to reduce the distance between content creators and player (Polygon, 2013). For most game developers and customers, Steam is the distribution platform of choice.

No company is perfect, but Steam is by far the gold standard in digital distribution. Everything they do from developer support to storefront curation and planning is top notch. A game can be released on Steam and potentially make millions of dollars all without the need for a publisher and every other expensive and sometimes unnecessary obstacle developers have to overcome for other distributors. (Tommy Refenes, 2013)

### **Origin**

Origin is the digital distribution and DRM system from EA that initially launched in 2011. In a similar fashion to Steam, Origin allows players to purchase games and play them through the service. Certain games published by EA require Origin in order to be played, and can't be found on Steam. Since Origin's launch, the service has received criticism over several practices done by EA, such as banning and suspending accounts, and being suspected for monitoring users' computer activity (Rock, Paper, Shotgun, 2011).

## **GOG**

GOG (formerly known as Good Old Games) is the second biggest independent digital platform after Steam. GOG launched in 2008, and is owned by CD Projekt RED who also develops and publishes games, and is famous for the game franchise The Witcher. What makes GOG stand out as a distribution platform is the wide selection of older games, and the 100% DRM-free policy. This means that each game can be installed, reinstalled or even backed up onto a DVD or a hard drive without limits. GOG also offers bonus digital goodies with games purchased from the platform, among other features such as a fair price policy and a 30 day money back guarantee. GOG's Trevor Lovino describes the service as an alternative for Steam instead of a competitor, by providing things that Steam doesn't, namely a DRM-free experience (PlayStation Gang, 2013).

## **3 SWOT IDENTIFICATION**

When looking at the still relatively new form of distributing games online, many factors have to be taken into consideration. Due to the flexible tendencies of digital distribution, the ways in which we obtain digital media is constantly changing, but is it for better or worse?

Categorizing the elements and fundamentals that the digital distribution consists of today is not as simple as dividing them into pros and cons. Therefore, in this part of the text I have structured the most significant factors of digital game distribution into the form of a SWOT analysis. This structured planning method evaluates the strengths, weaknesses, opportunities and threats involved in this research. A SWOT analysis is a common technique used to specify the objectives of a business or a project. Once a SWOT analysis is established, it can be used as an informative basis for future steps.

The purpose of the SWOT analysis within this research is to identify each relevant factor that is connected to digital distribution of video games. The SWOT method can also be described as a situational analysis, which applies to this open-ended research

topic. The following analysis will serve as the main component for this thesis, and provide insight, as well as evoke more specific questions about the subject matter.

The focus will be on the most relevant parts of the distribution aspect, giving a perspective on the subject matter as a whole. It should be noted that this SWOT analysis is carried out as an informative research, and not as an evaluation for any specific business. The goal of the following analysis is generate meaningful information from each category, and reach a better understanding of the holistic picture of digital game distribution.

## **3.1 Strengths**

This chapter will focus on what generally can be considered to be strengths and positive aspects about digital game distribution. As a basis for defining strengths, this chapter will also take a look at the brick-and-mortar retail method and use it as a comparison.

As with all important issues, there are multiple ways to look at them. Even within the strengths of this analysis there are certain issues that must be taken into consideration and will be viewed from a different perspective during later chapters. For now we will look at how digital distribution benefits primarily the player, but also the creators of the game.

### **3.1.1 Convenience**

The main reason that most consumers choose digital distribution in any form is because of convenience, and why shouldn't they? Making purchases online has become a familiar way of shopping for most, and increases to do so. Finding a store that sells games is no hard task nowadays but making the purchase online is even easier. Location and time is no longer an issue since any game can be bought at any time as long as the customer is connected to the internet.

Just as with any media product, games have their fanatics as well. For these people it is no longer enough to receive a game on the same day it is launched, it is about receiving it within minutes. For the most popular franchises, stores have started with midnight

launches where the most eager fans can line up and receive the game before the store opens for regular customers. Fans might camp outside the store for hours in the rain simply to receive their copy of the game slightly earlier. The recent launch of the highly anticipated game Grand Theft Auto V was no exception where thousands stood in line for stores all over the world. Gaming website IGN asked 10,995 people whether they would take work off to buy and play the game, and according to the poll 46% said they would take that day off. 19% answered they were going to call in sick in order to play the game on the same day it was released. (The Telegraph, 2013)

With digital purchases the customer can buy a game within seconds of its release, a convenient option for those who do not wish to wait in line for hours or wait for a store to open.

Another advantage the digital copy has over its physical counterpart is the convenience of not needing a disc to install or play the game. A CD- or DVD disc has the potential to get damaged over time or go missing, which probably is a familiar situation to most people. Once the disc is lost, so is the game. With digital copies this is no longer an issue since the game is directly downloaded through an internet connection instead of installed from a disc.

With the disc also comes the necessity of a disc drive. Today disc drives have become a dying breed and many new computers and other devices are no longer manufactured with an accompanying disc drive. As an input on the topic, tech-industry analyst Michael Gartenberg states that the optical disc will over time be as much of an historical curiosity as the floppy disc. (CNN, 2013)

Once the digital copy is purchased it is usually added to a library tied to the account from which the purchase was made. Even if the game data is removed or uninstalled, the game can still be reinstalled from the same account. A helpful feature if one wants to free up hard drive space for example, and then access the game later.

### 3.1.2 Selection

Accessing data from the internet is only one part of the many benefits it provides us. Today the internet can almost be considered an infinite amount of storage space for different types of data. While a retail store only can hold a limited amount of products that have been selected for the shelves, an online store can provide as much content as wanted. Adding to the selection is the large amount of digital distribution services available. Since most of these sites frequently arrange promotional sales it is not hard to find a specific game at a discounted price on at least one of these services.

At first glance an online store and a retail store might not look too far apart from each other. The newest and most attractive titles are displayed at the front to get the customers attention. On a further inspection however it is clear that a physical store can't keep up in terms of supply and selection with a digital store. While a typical retail store has to plan a ratio between supply and demand, an online store can essentially stock up on an infinite supply without having to worry about demand since there is always space on the virtual shelves.

Digital distribution sites do not only excel in amount, but in range and variety as well. Not only can you find the same games online as in your local game store but many more. A large section of the games available online are exclusively sold in digital form, since this makes it easier for developers to publish their games at a lower cost, both for themselves and for the buyer. Publishing a game in digital form is also a way for the developer to test the waters with their title. Examples of this are successful indie games such as Limbo, Super Meat Boy and Magicka which all released retail versions to additionally expand sales after receiving a good reception on the digital market.

A newer sales platform does not necessarily mean only new content. With the help of digital distribution many games that along the years have disappeared from store shelves have found new life through digital distribution. This allows both seasoned players to re-experience games from their past, and newer crowds to discover old "classics". One of the services that have specialized in reviving and delivering these

classic games is distribution service GOG.COM with a total selection of 668 titles and counting (GOG.COM, 2013).

### **3.1.3 DLC and additional content**

A game in itself might be a stand-alone product but when it's connected to the internet and a digital service it has the possibility to become a whole lot more. Many of today's digital distribution services provide the player with multiple options both prior and after making a purchase of a game.

Since video games in general are quite an expensive form of media, players often want to know as much as possible about a game before spending money on it. The most hands-on approach for this is to try out a demo version of the game. While demo versions have been around since the early 1990s first appearing on floppy discs, they were not easily accessed and were restricted by storage mediums. Due to digital distribution, releasing demo versions is easier than ever, which benefits both the developer and the player. Another prominent addition is trial versions that let the player experience the full game for free for a limited amount of time, which might spark the interest to purchase the full game.

Another way a player can experience a game prior to purchasing the title is through early access. This is a fairly new feature where the developer releases an earlier build still in development of the game, usually for a discounted price. This way excited players can get immediate access to the still evolving game, and even provide with feedback for the developers.

Placing pre-orders for games is no unfamiliar task for most video game enthusiasts. For physical copies this means reserving a copy and grants the customer a guarantee to receive the game as soon as it is released. On the digital side pre-ordering is just as common but for different reasons, since there is no risk of copies being sold out.

Pre-orders are a helpful way for the creators of the game to estimate popularity based on demand. But in order to receive these numbers an incentive has to be created, since there ordinarily would be no purpose in placing a pre-order for a digital copy. These incentives or bonuses have rapidly increased during the last years, and games can offer anything from additional content to entire games as a thrown in pre-order bonus.

For the 2012 release of XCOM: Enemy Unknown on Steam, a tiered pre-order system was available for purchase. When a specific number of pre-orders were placed, buyers would be rewarded with character customization options, exclusive XCOM themed content for the game Team Fortress 2, and a free copy of the game Civilization V. Similar scaling incentives have since been made for games such as BioShock Infinite, Tomb Raider and Lost Planet 3. (Polygon, 2013)

Another platform that heavily utilizes bonus incentives in relation with purchases are crowdfunding services, particularly Kickstarter, which is currently the world's largest online crowdfunding platform (CBC News, 2013). People who “back” projects are offered different tiers of rewards based on the amount they are willing to spend. Digital extras and the game itself are usually part of a lower pledge, but with a larger payment the buyer might even get his/her own name or face inside the game. Ultimately these payment options give the consumer the choice to put their own price on a game project.

#### **3.1.4 Added content**

Since the implementation of downloadable content (DLC), digital distribution platforms no longer simply provide stand-alone titles but additional content to increase both size and longevity of a game experience. DLC can add several types of content to a game such as additional storyline, characters, levels, objects or other features.

Before the internet reached high enough speeds and gained its popularity, additional content could only be distributed in physical form in the manner of expansion packs.

As the name implies, expansion packs offer additional content to an existing game, usually at a lower price. While expansion packs have been released since the 1980's, they have become increasingly scarce due to today's downloadable content which makes additions to a game easier to provide and access.

Downloadable content comes in various forms and sizes, but can in general be categorized in paid content and free content. In most cases DLC works as a paid optional expansion for the game, but some developers offer new content for free on a regular basis to keep the game alive and the players active. One of the most successful examples of a regularly updated game is Team Fortress 2 by developer Valve Corporation. Since the release of Team Fortress 2, the game has had nearly 400 free updates since its release in 2007, which has kept the community active for over 6 years now. (TeamFortress.com, 2013)

Since the earliest days of gaming, crafty players have been taking games a step further through accessing the games files and altering them to operate in a different form than originally intended. Making these changes and additions in a games program code is known as modding. PC gaming makes mod creation especially accessible since most files can be altered with the proper knowledge and tools.

With the help of digital distribution, game developers have lately started taking the modding aspect into account when releasing and adding content to their titles. With official content creation tools the public is given the possibility to create and share content that has been made for the game. Through the Steam Workshop, the official hub for player-created content on Steam, Team Fortress 2 has a library of over 7000 items created by players for the game. (Steam, 2013)

### **3.2 Weaknesses**

For most parts digital distribution has made great advances towards convenience and selection, but there are still valid reasons for games to be distributed in the form of



physical copies as well. While some may be completely satisfied with the digital option, the main weaknesses for digital distribution, as simple as it may seem is the lack of a physical product, and what that means in terms of content.

Purchasing a game from a digital distribution service comes with a certain set of rules and restrictions the customer should be aware of. Once the purchase is made the game is in most cases linked to the users account and stays there permanently. Currently this connection between the game and the service generally eliminates the possibility to return the game, get a refund, or lend the game to someone else.

It is no secret that used games are in demand in retail stores, and provide both the customer with a cheaper game and the retailer with added profit. For video game retailer GameStop, used games contribute to more than half of the company's profit, which shows the popularity of used titles (Forbes, 2012). The absence of pre-owned games in digital form means the only one capable of setting a price for a game is the developer. Games that are no longer desired by the player become valueless since the game can't be resold.

Since all digital games have to be downloaded, they require an internet connection in order to install the game data. While this doesn't present a problem for everyone, it might cause a holdback, or inability to install the game for others. PC games have continually increased in file size during the years, and it is no longer uncommon for newer games to reach closer to 30GB in file size. Purchasing a game with this type of space requirement means the player won't be experiencing the game as soon as they might think. With a slower internet connection the player might be looking at several hours of downloading. Since many newer and current releases receive patches and updates on a regular basis through the digital provider, an internet connection is needed as well to keep the game updated and accessible for new content.

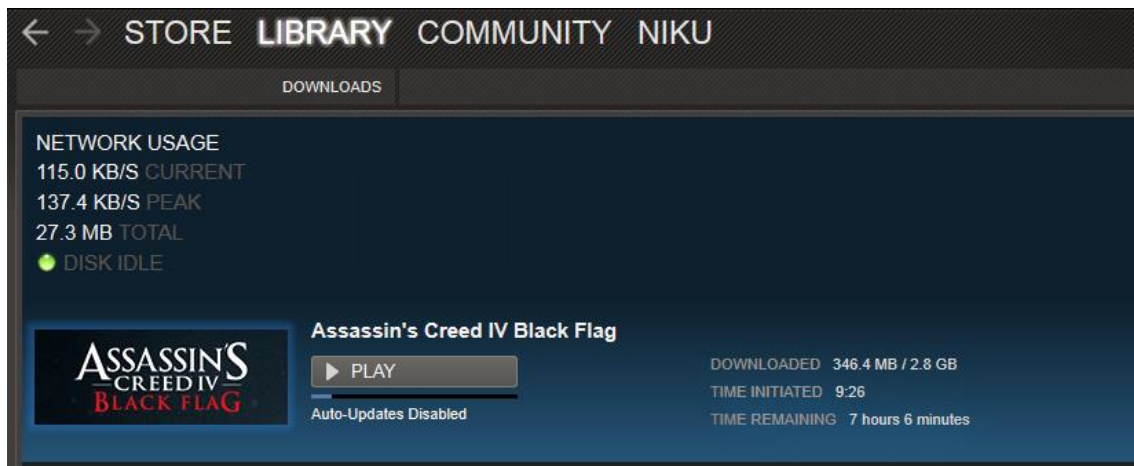


Figure 2. An example of a sizeable update on Steam. Steam 2014

When it comes to music, movies or in this case video games, there will always be collectors who will want to get hold of a physical product. In the past PC games were packaged in larger paperboard cases, which could be considered a novelty in itself, but has since changed packaging to the standard DVD-sized cases that are used today. For those who want more than the stand-alone game in its case, there is the alternative option of collector's editions. While digital games might offer added bonuses at a higher price, they are limited to do so within downloadable content.

Added goodies included with games have been around for a long time, but what now goes by many names such as collectors editions, special editions or limited editions come in many shapes and sizes. Typical items that can be found in addition to the game are for example art books and soundtracks. However some releases have taken the concept of a collector's edition a bit further, such as the video game *Borderlands 2*. In addition to the "Deluxe Edition" of the game, Gearbox software released a limited version of the game called the "Ultimate Loot Chest". This pricey package contained 10 different collectible items in addition to the packaging and the actual game (joystiq, 2012). The biggest fans are always willing to pay extra for something they love, but in order to do so they will have to resort to the physical version of the game.

### 3.2.1 DRM

Digital rights management is perhaps the oldest and most problematic issue within digital distribution. The principal of DRM in video games is the same as with music and movies online, to serve as copyright protection for digital media. The idea is to prevent copying and redistribution of media, also known as piracy. On PC, DRM has a long and problematic history that is still an occurring issue for both publishers and customers. In theory DRM is used to prevent piracy, however it is usually only the paying customer who is punished. In this section we will look at the many ways DRM can, and has been used, and evaluate what makes DRM such an obstacle in digital distribution.

DRM goes far back and has been used to various degrees by different companies. What can be seen as the start of the problematic DRM we know today is the introduction of SecuROM, a DRM product developed by Sony DADC. Among the first games that used SecuRom was the highly anticipated game Spore by publisher EA. Within the first 10 days of the launch of Spore in 2008, more than 500,000 copies of the game were pirated. Perhaps what caused the biggest controversy and the high torrent activity was the fact that EA had limited users to only install the game three times through the DRM software. The backlash of customers and pirates alike was raging online, and the encryption of the game was quickly broken and shared online without restrictions. Most agree that Spore and its heavy-handed DRM caused the title to become the most pirated game of 2008, according to TorrenFreak. (CNET, 2008)

Since the introduction of SecuROM, online activation has become an industry standard and limited installs can still be seen in certain games today. EA once again stirred up controversy with the launch of SimCity, the latest game in a long running franchise. While many other recent releases have received criticism during their launch, none are quite on the scale of SimCity. The game launched on March 5, 2013 and was immediately met with a negative reception. The DRM of SimCity caused the launch to be labeled a disaster by multiple publications. The biggest issue was the single problem that the game could not be run offline, even if players did not intend to use any of the online features in the game. The high volume of user activity on EA servers were not

able to handle the strain, leading to crashes, disconnections, login issues, and an enormous backlash from the community.

The uproar of the always-online DRM caused hackers and modders to take matters into their own hands, and shortly after, the game was playable offline. Modders found that by removing a single line of code, anyone could play their copy of SimCity in an offline mode. A year after the launch of SimCity, EA and developer Maxis finally decided to release an update with an official offline mode for the game. In a press statement Patrick Buechner, GM of Maxis Emeryville described the update as the definitive version of SimCity, whether it's played Online or Offline. (Forbes, 2014)

What started out as a tool to prevent piracy has become a nuisance that penalizes the paying customer. From the customers' point of view, DRM is always a hindrance, whether it's limited installations or persistent online authentications. While digital distribution platforms such as Steam and Origin work as DRM systems on their own, certain publishers such as Ubisoft and Rockstar Games rely on their own form of DRM. This means that the player is forced to use an additional service or system in order to play the game. When this type of excessive DRM is added to games, it becomes clear that there is a reason for being concerned about DRM and the future use of it in games.

Among gamers it can be mutually agreed upon that DRM is a troublesome issue that causes grief upon customers. Angry customers are no longer the only ones expressing their disapproval of the excessive use of digital rights management software. Several developers, publishers and influential people in the industry share the concern of how DRM is used. After the release of Spore in 2008, Gabe Newell commented on the use of DRM by writing:

As far as DRM goes, most DRM strategies are just dumb. The goal should be to create greater value for customer through service value [...] not by decreasing the value of a product. We really really discourage other developers and publishes from using the broken DRM offerings, and in general there is a groundswell to abandon those approaches. (Gabe Newell, 2008)

We know that piracy is affecting the sales of a game, and vice versa with DRM leading to potential piracy. However, it is nearly impossible to show accurate numbers on how each factor is affecting the other. Since a pirated game does not definitively mean a lost

sale, these calculations only end up as speculations. Instead it is more likely that a negative experience, such as a frustrating DRM system, can cause more damage than a pirated game.

Most publishers have stuck with some form of DRM since it has become a standard in the industry. While most are acknowledging the problem, few are acting against it. CD Projekt Red, creators of GOG.com and game franchise The Witcher have made a clear statement about their standpoint on DRM. The Witcher 2 was released for PC in 2011 and featured a DRM-free version of the game on GOG.com. The developers' anti-DRM stance has proven to be successful with over six million games sold in the Witcher franchise. Marcin Iwinski, CEO of CDPR has announced that the PC version of the upcoming game The Witcher 3 will be a 100% DRM-free experience. (PC Gamer, 2013)

Looking back at the controversy caused by the releases such as Spore, not much has changed in terms of DRM and the use of it. Publishers are still relying DRM to prevent piracy, and customers are constantly displeased with it. Even after negative feedback, criticism and disgruntled customers, games such as Spore and SimCity manage to sell millions of copies. What it eventually comes down to for a large company such as EA is to generate sales, which they most certainly are.

For as long as DRM has existed, hackers have always managed to crack any form of protection a game might have. For each new layer of DRM that is added to prevent hacking and piracy, an additional obstacle is added for the customer. This process poses the threat of an even extremer form of DRM, which most certainly would create an unpleasant future for digital distribution and the game industry as a whole.

Steam has proven that DRM does doesn't always have to be an annoyance. Since the entire technology is disguised inside the client, any negative aspect of the DRM is invisible to the user. The problem arises once developers and publishers introduce the player to their own set of DRM.

Expecting DRM to disappear overnight due to criticism against it is not a likely thing to happen. Removal of a DRM system presents a problem on its own since online game data is often linked with the service. In its current state DRM remains a dilemma in the gaming industry. While there is no clear solution in sight, the initiative taken by CD Projekt RED with DRM-free games and the increased amount of self-published games provides a promising step towards an improved customer experience.

### **3.3 Opportunities**

Opportunity in general is a term that defines the digital game distribution quite well and is something that affects both the developer and the consumer. Since there is no clear ideal solution in terms of providing games online, digital distribution is constantly changing and adapting to the consumers' needs and creating new possibilities. During the past years digital distribution has come a long way, but even now it is clear to see that it is still evolving with a lot more in store for the future.

#### **3.3.1 Pricing**

It is safe to say that without digital distribution many smaller titles would not have made it to the market. The biggest reason for this is the standard that retail copies have set in terms of content and pricing. The typical retail copy of a game tends to hit stores with a price tag between 40 to 60 euros depending on the platform. These are normally high production games created by larger teams with big publishers. Due to the flexibility of content and pricing a digital store can provide anything from smaller indie games to AAA-titles for a price that fits the title.

In general digital copies are cheaper since the digital product requires no physical content or manufacturing. However there is no specific standard for prices on digital copies, so it's usually up to the publisher to decide a fitting sum. Prices can just as easily be reduced, for examples in case of a limited time offer, or for good once the game reaches the bargain bin. Since digital purchases can easily be monitored by the

developer, a price that the customer is willing to pay can easily be found, which benefits both parts in the transaction.

The regular formula for releasing a game requires both a development team for the actual creation of the game, and a publisher for the marketing and manufacturing. In the earlier stage of the internet hobbyists and small teams could self-publish their games as either shareware or commercially on websites. These types of games are today referred to as “indie games” and have become a large part of the industry due to today’s new online distribution methods. In the last few years several indie titles have reached great financial success, such as Minecraft, Braid and Super Meat Boy.

While digital copies do not age or become second-hand at any point, their prices do get lowered as the game’s popularity fades, or in special cases during limited sales campaigns. For those who acquire their games online, discount events created by the distribution services is something most players keep an eye out for, and for a reason. On Steam alone there are always two or more sales per week; the Midweek Madness between Tuesday and Thursday, and the Weekend Deal over the weekend. Additionally daily deals offer a significant discount on a selected game for 24 hours. The largest sales on Steam are the annual seasonal sales. During these sales, nearly every title in Steams store can be found at a discounted price. In 2009 Valve co-founder Gabe Newell announced that the game Left 4 Dead’s 50% off sale resulted in a 3000% sales increase, which managed to beat the game’s original launch numbers (Shacknews, 2009).

A survey taken by 1400 people on their game buying habits show that people are buying more games than they can play. Results show that the average gamer purchased 11 to 25 games in the past 12 months since taking the survey and has not played 40% of those games. Another result shows that only 20% of these people buy games at full price (Kotaku, 2013). Statistics such as these show just how advantageous it is for digital distribution to adapt to the consumer and keep prices adjustable.

### **3.3.2 Release models**

With nearly endless possibilities and options for distributing content online there are more options than ever to distribute games online. Without restricting standards, developers today are free to publish games in any shape or form they see fit. Both distribution services and individual games can provide us with a wide array of content and functionality in order to cater to the community and customers.

Since the days of the only release method of a game being a standalone product, several new release approaches have since spawned. These include the previously mentioned models such as a game resulted from crowd-funding, games with early access features and games with downloadable content. A more recent take on DLC that has been adapted for many recent games is the season pass concept. A season pass provides access to a larger number, or a set of DLC bundled together for a game. Instead of buying each piece of content separately the player can purchase the usually discounted DLC pack upfront, and often later receive content that has not yet been released.

A variation of the season pass is the release approach of what has become known as episodic games. As the name implies the game is comprised of a number of “episodes”, which are usually intertwined in order to put forth the story of the game. This type of concept seems to fit a certain type of game that can be divided into chapters or acts. The episodes can normally be bought both separately and bundled at a discounted price, once all parts of the game have been released. The most notable episodic game to date is *The Walking Dead* created by Telltale Games, who have specialized in telling stories through episodic games. *The Walking Dead* was received with critical acclaim after its release and has since won over 90 game of the year awards. Since its release in 2012, Telltale Games has been working on a new season for the game and have announced multiple other episodic game projects (Telltale Games, 2014).

Free-to-play (F2P) is another fairly young game model where the concept is that a game can be downloaded for free but provides optional purchases or payment options to obtain additional in-game content. Some games offer completely optional content such as cosmetic item for a fee, while other games might heavily rely on in-game purchases



to advance the game. Many subscription-based games have also later on adapted to the F2P model after seeing its potential. A report from SuperData Research showcases that 26% of the US digital games market is held by F2P games, which displays the popularity of this relatively new release model (SuperData Research, 2014).

During development, a game does not necessarily have to stick to a specific release approach. This is something that was proven by video game developer Double Fine Productions and their crowd funded project that started in 2012. Double Fine Productions, led by video game veteran Tim Schafer, were by no means strangers to the industry, but wanted to create a game without publisher interference, and at the same time required the resources to self-fund a game. The project was given the working title Double Fine Adventure, and was designed to be a point-and-click adventure game, a commercially niche genre within games. "If I were to go to a publisher right now and pitch an adventure game, they'd laugh in my face," Schafer explains in his Kickstarter presentation (Kickstarter, 2012).

Schafer instead decided to reach out directly to the fans of the genre and asked for \$400,000 dollars on Kickstarter to make the game possible. Double Fine Adventure ended up bringing in more than 3.3 million dollars, making it at the time the highest funded project in Kickstarter's history. (Gamasutra, 2012)

The Double Fine Adventure project (now named Broken Age) was announced to be available both on Steam and as a DRM free version. Despite the large amount of funding the game managed to bring in, the project went over budget and now needed more resources to deliver on backers' expectations. Since asking a publisher for money was out of the question, the solution was to split the game into two halves, with the plan being to release the first part earlier in order to raise enough funds to finish the second half. (Forbes, 2013)

Broken Age was originally planned for release under the Early Access program for Steam. Double Fine Productions later announced that the game would be a regular Steam release with a season pass granting access to Act 2, since Act 1 of the game was considered to be "a polished and satisfying piece of content in its own right" according

to Double Fine (joystiq, 2014). Double Fine did however use a form of early access for those who had backed the project, who were able to get their hands on the beta version of the game before its release.

With the help of Broken Age, crowd-funding has demonstrated that fans are willing pay for specific games or genres that publishers would normally not think to distribute. It shows that any type of game that enough of fans are willing to support is worth creating, which indicates a great opportunity for smaller developers to get their games out there. For the bigger publishers in the industry it serves as a proof that different genres might be worth looking into if a following for it exists.

### **3.3.3 More than a store**

Digital distribution can and has become a whole lot more than a delivery service for games. While some services solely focus on providing games, others have implemented an online environment for the players within their stores. In this chapter we will focus on Steam as a service, since it is arguably the largest and most successful example of digital distribution platform for computer games.

Since its launch in 2002, Steam started out slowly with bugs and server issues, but has since vastly improved over the years and become a large part of the video game industry itself. What started out as a client to support creator Valve's own titles has become a massive platform packed with features to support games and players alike.

For the PC gaming user base, Steam provides a neat customizable library for all the software purchased from the service. From the game library players can not only access their games but additional features such as playtime data on how long the game has been played. Most modern games on Steam also support achievements, which are extra challenges that the player can unlock. Games within the library can also be categorized and viewed in different modes, and as previously mentioned be installed and reinstalled at will. Players can also add non-steam games to their library, so that all games on a

computer can be accessed from the same convenient client. Additionally, Steam supports entering product codes for certain retail games that can be redeemed as titles for the user's library within the client. In 2008 Valve added support for Steam Cloud, a feature that allows players to store their game progress and other related files on Valve's own servers. This allows players to access their saved data from any other computer with the Steam client installed.

Along with the previously mentioned components, Steam also works as a social network service. These elements are built to enhance the multiplayer experience, and to keep in touch with friends, groups and communities related to games. Users can identify friends and join groups in order to interact and communicate with each other, both while playing a game or within the client. The Steam client, as part of a social network service supports both text and voice communication between users. Once a friend has been identified or a group has been joined, the player can be notified whenever someone enters a game and easily join the same game if a multiplayer mode is supported.

Each user account has an individual profile page that display games owned, friends, groups, achievements and other information about the player, which can be kept private if desired. In 2011 Steam updated and expanded the social aspect of the service by introducing the updated Steam Community. This addition included community pages where users could access hub pages for each game to discuss and share content, all in one place. Since February 2011, over 80 million screenshots have been taken, and over 200,000 Workshop items have been created by the users of the Steam Community (Steam, 2014).

Additional built-in features include the Valve Anti-Cheat (VAC) system that detects and reports cheating in multiplayer games, and the Steam Wallet, which stores funds that can be used for purchases within the service. These purchases include the Steam Market, where users can sell and buy certain in-game items. Users can also choose to trade and swap tradable items between friends on Steam. With the introduction of Big Picture, players were given the possibility to enjoy Steam and its games on the TV with a reformatted user interface and easy navigation with a game controller.

In 2012 Valve launched Steam Greenlight, a system that allows the community to vote on new games to be released on Steam. Developers can submit information about their game and seek community support in order to get selected for distribution on Steam. Previously games selected for distribution were picked by a group of Steam employees, but now the community can get their say in what they want to see on the service. For new developers without a previous relationship with Steam, Greenlight works as an option to reach out to the service and receive feedback from the community at the same time.

Providing added features with distribution platforms has proven to be a successful addition. Added options and more control over content, with an addition of a social hub makes an appealing service and it's not hard to see why. This helps to attract new players to join in, and even manages to convert pirates into payers. Since the beginning of the internet, piracy has been a long lasting problem for the video game industry. While it's easy to make the conclusion that piracy stems from price, Gabe Newell has another understanding on the issue. Newell believes that piracy derives from convenience, not price. "Our goal is to create greater service value than pirates, and this has been successful enough for us that piracy is basically a non-issue for our company." Newell adds. (Eurogamer, 2011)

### **3.3.4 On the horizon**

For many of the inconveniences that have been an issue in digital distribution, several reports of upcoming fixes and solutions have started to appear. On top of dealing with current concerns, there are numbers of updates and additions on adding and improving new features to look forward to. In this chapter we will take a look at some of the recent news and reports on what different digital distribution services are planning to fix and plan ahead for.

Prior to 2013, being able to get a refund for a purchased title was not an option, at least not a feature supported by the big distribution systems available. While games tend to be optimized to run on any system, issues with launching or running a game properly

are quite rare, but cases like this do happen. The worst case scenario is that the purchased game does not work on the users system and becomes unplayable. For these rare cases distribution systems Origin and GOG.com have created policies to refund the customer.

Digital distribution system Origin, created by EA, launched its policy for refunds in August 2013. While being ahead of its competition in terms of refunds, the system did come with certain limitations and rules on receiving refunds. In order to be eligible for a refund for a game purchased from Origin, the title has to be a game published by EA and be refunded within 24 hours of the time first launched. Other details about the policy mention that refunds may not be supported for products bought during special promotions (Origin, 2013). In December 2013, DRM-free distribution service GOG.com soon followed by releasing their own Money Back Guarantee. The rules for the GOG.com refund policy are simple; the guarantee applies to every single game on the service, with all countries being eligible, as long as the refund is requested within 30 days after purchase (GOG.com, 2014). Steam on the other hand currently does not offer any kind of refunds or exchanges on games purchased through the Steam Client.

While Steam has stuck with the traditional standard that games are permanently tied to an account once bought, some recent changes have been made and can be expected soon. Since 2014, the process of cancelling pre-orders can now be done with the click of a button instead of going through the service's support system. In September 2013, Valve introduced their upcoming solution to sharing games on Steam, with the announcement of Steam Family Sharing. Through this plan, users will be able to share their entire game library with friends and family. The program allows sharing with up to 10 others, who can individually save progress and earn achievements from games. The limitation of this feature is that each game library can only be used by one person at a time (Steam, 2013).

Chances are that we might see digital distribution happening on the television in the near future, with Steam planning hardware for the living room with Steam Machines. Valve plans to expand their successful digital distribution for the big screen with SteamOS, a Linux-based operating system. For the hardware Valve is not only releasing

their own Steam Machine as a benchmark for the devices. Several hardware manufacturers will be releasing their own iterations of the device, with all of them running SteamOS. With Steam Big Picture, Valve showcased a functional way of using Steam on a bigger screen, and with Steam Machines the next step is to merge both interface and hardware, to reach new customers. By introducing a small but powerful device with easily operated software, Valve might attract a new audience, who normally wouldn't play traditional PC games.

As an operating system SteamOS is designed primarily for playing video games, but offers additional features as well focusing on the living room experience. Users will be able play all of their games from Steam on their SteamOS machine through streaming the games over a home network directly to the TV. Currently in the works is a media service, that will let users access music and video with both Steam and SteamOS. The Steam Family Sharing is meant to be implemented as well with the software so that users can share their games, and even use the Steam cloud feature to save progress and achievements (Steam, 2013).

### **3.3.5 Cloud gaming**

Playing video games as a hobby can be an expensive entertainment form, especially on the PC. Expensive games require high-end machines to run the latest titles, and as graphically demanding games advance, they require updated hardware. The recently introduces solution to eliminate both hardware demands and other obstacles in digital distribution is cloud gaming. Cloud gaming proves that digital distribution can provide content in other forms than by downloading the files needed, before being able to play a game.

Cloud gaming uses the latest streaming and server technology to provide games to run on almost any device. Currently there are two common ways in which cloud gaming is used; video streaming and file streaming. The term cloud gaming usually refers to video streaming which also can be called gaming on demand. As the name implies, this type

of online gaming works something like video streaming, but with games. The game itself is stored on the operator's or game company's server and is streamed directly to the user's device. The user's interactions with the game such as button presses are transmitted directly to the server, where they are registered and sent back as a response to the button input.

Cloud gaming based on file streaming works in a similar fashion to regular download-based digital distribution, but allows the user to start playing the game while the download is in progress. Once a small portion of the game is downloaded, the game can be instantly accessed while the remaining content is being downloaded to the user's device. This method uses the cloud as a scalable way of streaming the content of the game. File streaming does however require the hardware capabilities to run the game.

Cloud gaming took its first big step into the spotlight in 2009, when three companies; Playcast, Gaikai, and OnLive first revealed the possibilities of gaming on demand services. In 2010 OnLive released the OnLive Game Service, a gaming on demand service that allowed high-end games to be streamed and played on PC, MAC or on a TV via the "OnLive MicroConsole". Since its launch, the OnLive service has received mixed reviews, and remained without any large impact on the industry. Cloud gaming has since seen new light with both Microsoft and Sony working on new ways to utilize cloud features for the new generation of consoles. Much of the technology that will provide the experience of cloud gaming is still at an early stage, but as companies are steadily making progress towards the vision of what cloud gaming could be, there is great potential for this new form of digital distribution.

While cloud gaming presents a completely new method of obtaining and enjoying games, not everyone is convinced that it is the future of gaming. The reasons for concern will be looked at closer in the "Threats" section of this analysis.

## **3.4 Threats**

By now we know that digital game distribution is here to stay. What we don't know is what form it is taking and what we can expect, even from the near future. Specifically within games, we find ourselves at an unpredictable and uncertain stage of this distribution form. We are currently seeing risky strategies and experimental solutions from developers with new release approaches and monetization models. The reception for many of newer releases has been exceptionally negative. New titles with questionable or lacking content, has brought out several questions about the balance between publisher and player. Has digital distribution given publishers the tools to create less of a game for an easier profit? Without any guidelines, where is the line drawn? Is the video game industry seeing a decrease in quality due to lacking content and heavy monetization?

In this section we will take a look at what can be considered threats to digital game distribution, threats to the current state of the industry as a whole, but also to the consumer using a distribution service. During this chapter we will discuss subjects that have caused controversy among gamers related to digital distribution. In order to identify these threats we will look at ongoing projects and recent cases that have stirred up dispute among press and gamers. In the past couple of years it has become evident that the gaming community is not afraid to express their disapproval about games. Whether it's general issues or personal critique, complaints online about games are not hard to come by these days.

### **3.4.1 DLC**

As mentioned in a previous chapter, DLC has become a large part of the games industry, and appears in various forms and sizes. In this section we will focus on the questionable aspects of downloadable content such as On-Disc DLC and micro transactions.



DLC is no longer just an afterthought to expand a game; it is parts of the game split up into various smaller parts. Many have criticized the use of DLC in games, which has raises several questions about the current state and the future of its practice. Are publishers using DLC to exploit customers? Or do gamers have themselves to blame for the massive amount of DLC in current AAA titles?

With each year the amount of DLC has increased, and what started as optional content has become part of the game. This often raises the question if not the content that is charged for should have been part of the game from the beginning. Nearly every major game release comes with DLC available for purchase on the day the game is released, often referred to as day-one DLC. Some games even contain DLC that is technically available in the original game, but requires the player to purchase the content to activate it. Fans reacted angrily to the release of Street Fighter x Tekken after it emerged that 12 of the characters that were planned as DLC could be found in the game data, but were unplayable on the console versions of the game. For the retail version of the game that was released later on PC, publisher Capcom removed the on-disc DLC. (Shoryuken, 2012)

For certain titles, even the sheer volume of DLC available causes confusion on controversy among many. Many of the pre-order bonuses that are offered with early purchases contain exclusive content that can no longer be obtained once the game is released. Retailers and even distribution platforms have their own pre-order exclusives for certain titles. Depending on where the game is purchased, and if it's a pre-order, the customer will only receive one of many versions of the game. Unless the customer buys multiple copies of the game, it is virtually impossible to obtain all of the content available for these games. Games on their own are expensive, and once DLC is added, prices can easily reach hundreds of euros.



Figure 3. Exclusive pre-order bonus for the game Tomb Raider. GAME. 2013

Since downloadable content can be anything and everything a gamer might be willing to pay for, the content itself is often questionable. Before DLC, bonus content could normally be unlocked by completing certain challenges in a game. Today several multiplayer games allow unlockable content to be accessed from the start by purchasing DLC for it. This way, players who spend more money within the game gain an advantage over those who progress through the game without paying.

Charging for minor alterations to a game, such as the ability to climb mountains faster in Tomb Raider (Figure 3) is only one of the examples of what DLC might resort to. Still, the market for DLC would not be growing unless there was a demand for it. Die-hard fans of a game are willing to pay for season pass DLC, without even knowing what the upcoming content will comprise of.

Whether or not the modern use of DLC can be considered ethical, gamers have demonstrated that they are willing to pay for additional content. The fact that we have not yet reached a plateau where customers would turn away from DLC, causes a state of uncertainty for the future of DLC. Reaching that point is what causes the biggest threat about DLC for the future of the games industry.

### **3.4.2 Content quality**

The definition of a finished game is a difficult task to describe, especially from the developers standpoint. Before games were distributed online, developers had to rely on a final build of the game that would then hit the stores for everyone to enjoy. A single bug could be a disaster since the problem would now be out of reach for the developer. Releasing a flawed game was not an option. Shigeru Miyamoto, perhaps the most influential person in the games industry attributed the quote “A delayed game is eventually good, but a rushed game is forever bad” (The Guardian, 2012). During recent years, digital distribution has demonstrated that this no longer is the case with game releases, for better or for worse.

Unlike a physical disc or a cartridge, a digital copy of a game can be altered and expanded on at any time, as long as it has some form of connection to the internet. Updates and patches allow developers to fix remaining issues such as bugs, even after the game is released. This has become a common practice for the gaming industry during recent years. In comparison to other businesses, paying full price for a product in an “unfinished” state would be unacceptable, however most gamers seem to have accepted this release method. Rushed releases and unfinished games have quickly become an increasing concern in the gaming industry and pose a large threat for the future of the industry.

One of the most recent and notable cases in what can be seen as a rushed launch is the game Battlefield 4. Despite being a highly anticipated AAA-title, by a large experienced developer, Battlefield 4 was riddled with bugs, technical issues and crashes upon launch. Even though since its release in October, 2013, the game received numerous fixes and patches, fans have remained unhappy with the performance of the game. In January, 2014, several months after the release of the game, players still encountered glitches that prevented them from playing the game properly. Developer DICE has

stated that these issues are still under investigation, but for fans of the game it might just be too little, too late. (Gamer Headlines, 2014)

Games such as Battlefield 4 and SimCity are no exceptions in recent game launches that have left customers unsatisfied. Cautious gamers who have learned from recent rough game launches might wait for updates before buying, but the rest, who are unaware of the possible issues when purchasing a recently launched title, might be in for a disappointment. Since a game can be patched and updated at any time after its release, becomes uncertain when players can expect to receive the complete experience of the game. There are many factors that might contribute to rushed launches, but the common theory appears to be delivering the game on a set date and therefore rushing its development.

### **3.4.3 Early access**

In contrast to the “unfinished” game released by major game companies, many smaller developers have turned to the early access release model as a way to let players access and influence their games during the development process. With the help of early access, indie game developers allow players to access their games in early stages, long before their releases. Steam currently offers more than 150 early access titles, which quickly have become a popular product among players (Steam, 2014). In January 2014 the fame of early access games could be seen as three early access titles held the top spot as best sellers on Steam, despite the releases of other anticipated games (Figure 4).

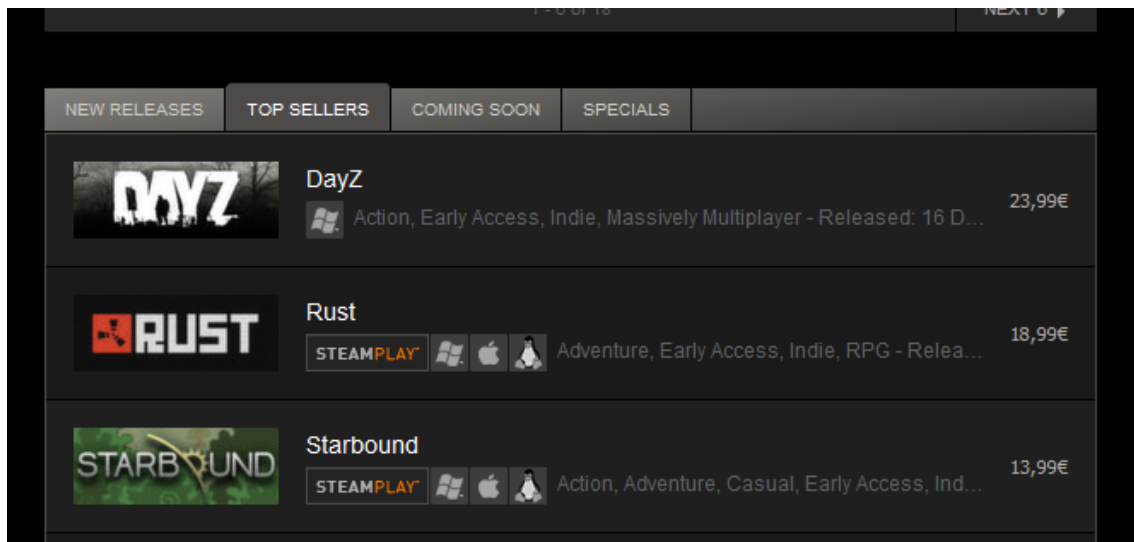


Figure 4. Early access games as top sellers on Steam, 4.1.2014

Games such as Starbound and Rust noticeably demonstrate that there is a market for unfinished games, at least in its current form. Players who spend their money on early access titles receive no guarantee on when and if they will receive a completed version of the game. Early access projects rarely have set release dates or possibility for refunds. Developers have little to lose on early access as they benefit from feedback and funding from fans, meanwhile gamers who join in on early access games are virtually taking a leap of faith by trusting the word of the developer.

One of the selling points of early access projects is that anyone who buys the game gets a say on it. Usually, a common method of testing a game used by developers is closed beta testing, where a handful of selected players get to play the beta version of the game. This gives developers valuable feedback from a selection of different fans that are balanced players. With early access, anyone and everyone get to share their thoughts on the game whether they strongly dislike the game or are fans of it. If the game eventually changes due to feedback, the players will end up with a different game than they originally paid for. The same applies if the developer decides to take the game in a different direction, or even disbands altogether.

Many have expressed their concerns about the pricing of early access titles as well. For many of these titles, players receive an unfinished game for full price. Another question

that has arisen recently is: how early is too early? As with most publishing options online, there are no specific guidelines regarding what defines an early access release in terms of content. Currently nothing prevents the game from being borderline unplayable, and still being sold at full price.

As a release model, early access is still evolving and it remains to be seen to what length developers will take the concept. Feedback and funding from players at an early stage benefit developers, but leaves gamers with a potential negative impression from a game meager on content. It seems unlikely that any big changes would happen any time soon with the status of early access titles. As long as enthusiastic gamers are willing to disregard bugs and glitches to get their hands on a game sooner, unfinished games will remain as a part of the digital market.

#### **3.4.4 Quality control**

When a product becomes popular enough, a common succession is that it spawns followers who will follow in the footsteps of popularity. With games this applies to both large companies and small developers. When developers disregard innovation and try to be a part of the success of something bigger, the gamer is usually left with a lackluster game. The difference between a competitor and a clone lies in knowing what to take away from the original game, and delivering something that players want. In recent memory, few games, if any, have spawned so many clones as the global phenomenon Minecraft. Clones and hastily made software created to get in on the money leads to the topic of quality control and shovelware, which will be looked at in this chapter.

On the mobile side of digital distribution, clones of popular games have been taken to a whole new level. Recently app stores have been flooded by copies of Flappy Bird, a game that received a sudden rise in popularity. Since then, tracking data has shown that on average, there were sixty Flappy Bird clones a day uploaded to Apple's app store (Forbes, 2014). While the same amount of shovelware currently only appears on the

mobile scene, it raises a troubling thought that a similar trend might appear on PC services such as Steam.

Steam is known for having a wide variety of games with everything from indie titles to triple AAA games. However, additions such as Early Access and Steam Greenlight have allowed games of questionable quality to be added to the library of games available on Steam. While not every game can be perfect, gamers have a certain level of expectation when buying games on Steam. It is understandable that an online store wants to provide as many titles as possible, but allowing anything and everything might not be the best solution for gamers. Many of these releases are unrecognized by reviewers, so the quality of the game might be unknown unless the customer purchases the game.

Games of poor quality with a definitive lack of effort can quickly lower the reputation of a digital store such as Steam. Reviews editor Jim Sterling argues that customers should not have to run quality control on titles to begin with, since it's the job of the actual quality control departments of those who make the games. Furthermore Sterling believes that we should not have to constantly question whether a game will look or play as advertised (The Escapist, 2014).

### **3.4.5 Defining digital games**

Many games have become dependent on variables that are beyond the control of gamers. When facing technical issues with a digital game there is little the customer can do to resolve the problem. While a defective physical product could be either returned or refunded, the solution is not as easy with digitally purchased titles. At the center of this issue lies the question of whether or not we actually own our digital video games?

There are several external factors that play a large role in order for us to enjoy the titles in our digital game libraries. Once a game is purchased and added to the game library, we expect it to be accessible and playable, as any game found in physical form on a shelf. This may not be the case however, due to several possible outcomes that may

serve as threats to the games thought to be permanent. Our catalog of titles depend on services such as Steam and Origin to be accessed and played. Additionally multiplayer games require costly servers to provide players with an online experience. What happens if these servers, or en worse, an entire service such as Steam or Origin shuts down?

Many of these answers remain unanswered due to the secretive nature of the games industry, and only time will tell if our fears come true, and how matters unfold. In a perfect world, any digital title would be accessible at all times for a small price. However, the reality is that several games have disappeared since digital distribution of games became prevalent. Games may disappear for several reasons, but one of the more prominent reasons for removed games is licensing issues. This was the case with High Moon Studios' game Deadpool, based on the Marvel Comics character by the same name. Only six months after the games' launch it was delisted from Steam and other digital stores. Along with Deadpool, several other Marvel Activision titles and their related DLC were delisted as well, most likely due to a lapsed licensing agreement (Polygon, 2014).

As multiplayer games lose their popularity and players move on to other games, it is no longer uncommon that its' multiplayer servers eventually shut down. However, when an entire service, providing online multiplayer for games is closed down, the effects can be seen on a larger scale. This was the case when GameSpy's multiplayer servers were announced to be switched off by the end of May in 2014. As a company, GameSpy has been online since 1996, with a wide range of games ranging from indie games to AAA titles. Now hundreds of video games may be taken offline as the multiplayer servers are being shut down. While some developers have found suitable solutions to transition to new servers, other publishers and developers have already confirmed multiplayer casualties with the server shutdown (Eurogamer.net, 2014). The full impact of a large service such as GameSpy going defunct is yet to be seen, but gamers can expect many of their favorite games rendered unplayable. GameSpy closing down serves as a grim reminder that players have little to no control over the larger forces at play that make our games playable.



## **4 CONCLUSION**

Digital distribution and the game industry as a whole can be a difficult subject matter to grasp when put under the microscope. Perhaps the biggest reason for this is because of the secrecy and restricted information that makes it hard to pinpoint exactly what is helpful and what is harmful to the industry and its consumers. While music and movies often give us exact sales numbers, games tend to keep things restricted, which usually leads to misinformation and confusion on the internet.

One might ask whether gamers themselves know what they want from games. The same can be said about customers in other industries as well, but it seems to fit the game industry particularly well. This can be explained by the volatility of the industry, which appears to be the most valid reason.

Regarding implementation of guidelines for the current online game distribution, certain rules might improve the situation for consumers. However, creating a standard for the industry to follow would greatly hold back the developments taking place with niche titles and unique release models.

### **4.1.1 The relationship between creator and customer**

Currently, it appears that the philosophy behind large game companies is to see just how much money can be squeezed out of their fanbases. In order to get to know the paying customer and maximize revenue, these companies engage in economic experiments by implementing new ways to pay for content. The goal of this experiment is to see how much money the player is willing to spend in order to gain access to the “complete” version of the game. With the relatively recent introduction of numerous new business models and release approaches, it has become visible that game companies are continuously testing the waters in order to see just how much profit can be made from a single game. From a developers point of view it's quite easy to see how intrusive DLC and paymium models are appealing as they have the capability to bring in more money

than a traditional model. From the paying customers' angle it's easily viewed as an unethical cashgrab with an alarming future.

The grim reality of the situation is that it eventually comes down to the decisions of the gamer. As consumers want more, game companies provide just that. Yet it seems the same customers are now voicing their displeasure about the matter. Gamers, on a whole, are a very volatile group, and any attempt from companies to extract money from the industry is often met with the backlash of fans. This anger and resentment can however turn into a positive thing, as it may result in developers thinking twice about their image and their decisions. If gamers truly want to make a difference, their complaints must serve a common purpose in order to change the game industry into something better.

#### **4.1.2 The future**

An increasing number of developers leaving the AAA industry in order to pursue careers in indie development suggest that indie games might play an even larger role in the future of games. Whether indie games will take part in the same type of "exploitation" of gamers as large companies, such as EA, remains to be seen.

A well-founded prediction is that companies eventually overstrain the limit of taking too much away from games and charging players for the rest. This would ultimately drive away customers who no longer would be willing to put money in the pockets of publishers. Each step takes us closer to this pinnacle, and once game design turns into making money instead of creating something entertaining, the core gamer might start looking for a new hobby. As long as publishers feel that they can get away with something, they will do it. This is the freedom that the digital age has given publishers.

#### **4.1.3 Ideas for further study**

This study demonstrates how digital distribution isn't composed of a single type of service or market, and that fully grasping each detail of a matter that appears in so many forms becomes a difficult task. While the development of digital game distribution is difficult to predict, more studies in the area as development proceeds could provide an interesting perspective on this ever-changing market.

A suggestion for further studies could be about the development of virtual reality gaming, as many predict that it may have a large impact on the games industry in the near future.

## REFERENCES

- Sarkar Samit, 2013. Polygon. All-digital future may save AAA game industry, says Patrice Desilets. Available: <http://www.polygon.com/2013/6/27/4470394/aaa-game-industry-all-digital-future-patrice-desilets> [www.] Last accessed 20.2.2014
- Brookhaven National Laboratory. The First Video Game? Available: <http://www.bnl.gov/about/history/firstvideo.php> [www.] Last accessed 26.9.2013
- Mark Overmars, 2012. A Brief History of Computer Games Available: [http://www.cs.uu.nl/docs/vakken/b2go/docs/history\\_of\\_games.pdf](http://www.cs.uu.nl/docs/vakken/b2go/docs/history_of_games.pdf) [www.] Last accessed 26.9.2013
- Entertainment Software Association, 2013. Essential Facts About The Computer And Video Game Industry. Available: [http://www.theesa.com/facts/pdfs/ESA\\_EF\\_2013.pdf](http://www.theesa.com/facts/pdfs/ESA_EF_2013.pdf) [www.] Last accessed 6.2.2014
- Chris Rio, 2013. Escapist Magazine Available: <http://www.escapistmagazine.com/articles/view/features/10183-The-Stupid-History-of-Downloadable-Games> [www.] Last accessed 27.9.2013
- David Xicota, 2013. Gamedonia. What Does DLC Mean for your Games Available: <http://www.gamedonia.com/blog/what-does-dlc-mean-your-games> [www.] Last accessed 3.10.2013
- Brad Wardell, 2003. Gamasutra. Postmortem: Stardock's Galactic Civilizations Available: [http://www.gamasutra.com/view/feature/131271/postmortem\\_stardocks\\_galactic.php](http://www.gamasutra.com/view/feature/131271/postmortem_stardocks_galactic.php) [www.] Last accessed 3.10.2013
- Griffin McElroy, 2013. Polygon. Gabe Newell on valve's past, gaming's present and Steams' future. Available: <http://www.polygon.com/2013/2/1/3941274/gabe-newell-steam-box-talk-ut> [www.] Last accessed 6.2.2014
- Chiang Oliver, 2011. Forbes. The Master of Online Mayhem. Available: <http://www.forbes.com/forbes/2011/0228/technology-gabe-newell-videogames-valve-online-mayhem.html> [www.] Last accessed 7.2.2014
- Corriea Alexa Ray, 2013. Polygon. Steam boasts 65 million accounts, 30 percent growth since last year. Available: <http://www.polygon.com/2013/10/30/5046848/steam-boasts-65-million-accounts-30-percent-growth-since-last-year> [www.] Last accessed 7.2.2014

- Walker John, 2011. Rock, Paper, Shotgun. EA's Origin Proves Even More Sinister. Available: <http://www.rockpapershotgun.com/2011/08/24/eas-origin-eula-proves-even-more-sinister/> [www.] Last accessed: 10.2.2014
- Nath Debabrata, 2013. PlayStationGang. GOG.com discusses DRM, piracy, next-gen consoles and more. Available: <http://www.playstationgang.com/gog-com-discusses-drm-piracy-next-gen-consoles-and-more/> [www.] Last accessed:10.2.2014
- Alice Vincent, 2013. The Telegraph. GTA 5: Thousands of gamers to call in sick to buy game. Available: <http://www.telegraph.co.uk/culture/culturenews/10312220/GTA-5-Thousands-of-gamers-to-call-in-sick-to-buy-game.html> [www.] Last accessed 26.11.2013
- Doug Gross, 2012. CNN. Why disc drives are an endangered species Available: <http://edition.cnn.com/2012/12/06/tech/innovation/imac-disc-drive/> [www.] Last accessed 26.11.2013
2013. GOG.COM Available: <http://www.gog.com/games> [www.] Last accessed 03.12.2013
- Tracey Lien,2012. Polygon. 'XCOM: Enemy Unknown' coming to Steam with pre-order bonuses. Available: <http://www.polygon.com/gaming/2012/9/6/3299204/xcom-enemy-unknown-coming-to-steam-with-pre-order-bonuses> [www.] Last accessed 05.12.2013
- The Candian Press, 2013. CBC News. Kickstarter crowdfunding site officially launches in Canada. Available: <http://www.cbc.ca/news/business/kickstarter-crowdfunding-site-officially-launches-in-canada-1.1703774> [www.] Last accessed 05.12.2013
- TeamFortress.com, 2013. Once Upon a Time.... Available: <http://www.teamfortress.com/history.php> [www.] Last accessed 10.12.2013
- Steam. The Steam Workshop for Team Fortress 2, 2013.Available: <http://steamcommunity.com/workshop/about/?appid=440> [www.] Last accessed 12.12.2013
- Trafis Team, 2012. Forbes. GamesStop Earnings: Focus On Used Game Sales And Digital Revenues. Available: <http://www.forbes.com/sites/greatspeculations/2012/11/14/gamestop-earnings-focus-on-used-game-sales-and-digital-revenues/> [www.] Last accessed 17.12.2013
- Alexander Sliwinski, 2012. joystiq. Borderlands 2 special editions revealed. Available: <http://www.joystiq.com/2012/05/17/borderlands-2-special-editions-revealed/> [www.] Last accessed 13.1.2014
- Rosenberg Dave, 2008. CNET. 'Spore' leads 2008's most pirated PC games. Available: [http://news.cnet.com/8301-13846\\_3-10116502-62.html](http://news.cnet.com/8301-13846_3-10116502-62.html) [www.] Last accessed 20.3.2014

- Kain Erik, 2014. Forbes. 'SimCity' Offline Mode Is Here At Last. Available: <http://www.forbes.com/sites/erikkain/2014/03/18/simcity-offline-mode-is-here-at-last/> [www.] Last accessed 25.3.2014
- GamePolitics.com. 2008. Report: Valve's Gabe Newell Disses DRM. Available: [http://www.gamepolitics.com/2008/12/02/report-valve039s-gabe-newell-disses-drm#.UzFv5ah\\_vAk](http://www.gamepolitics.com/2008/12/02/report-valve039s-gabe-newell-disses-drm#.UzFv5ah_vAk) [www.] Last accessed: 25.3.2014
- Birnbaum Ian, 2013. PC Gamer. CD Projekt RED CEO: The Witcher 3 will have no DRM, "zero, zip, nada". Available: <http://www.pcgamer.com/2013/10/30/cd-projekt-ceo-the-witcher-3-will-have-no-drm-0-zero-zip-nada/> [www.] Last accessed 26.3.2014
- Nick Breckon, 2009. Shacknews. Valve: Left 4 Dead Half-price Sale Saw 3000% Increase, Beat Launch Numbers. Available: <http://www.shacknews.com/article/57308/valve-left-4-dead-half> [www.] Last accessed 27.1.2014
- Ethan Levy, 2014. Kotaku. We're Buying More PC Games Than We Can Play. Available: <http://kotaku.com/were-buying-more-pc-games-than-we-can-play-1493402988> [www.] Last accessed 13.1.2014
- Telltale Games, 2013. Available: <http://www.telltalegames.com/walkingdead/season1/> [www.] Last accessed 16.1.2014
- Kickstarter, 2012. Double Fine Adventure. Available: <https://www.kickstarter.com/projects/doublefine/double-fine-adventure> [www.] Last accessed 20.2.2014
- Tom Curtis, 2012. Gamasutra. Double Fine's record-breaking Kickstarter closes with \$3.33M earned. Available: [http://www.gamasutra.com/view/news/165561/Double\\_Fines\\_recordbreaking\\_Kickstarter\\_closes\\_with\\_333M\\_earned.php](http://www.gamasutra.com/view/news/165561/Double_Fines_recordbreaking_Kickstarter_closes_with_333M_earned.php) . [www.] Last accessed 16.1.2014
- Erik Kain, 2013. Forbes. Double Fine Misadventure: First Major Kickstarter Game Hits A Snag. Available: <http://www.forbes.com/sites/erikkain/2013/07/07/double-fine-misadventure-first-major-kickstarter-game-runs-out-of-money/> [www.] Last accessed 16.1.2014
- Jessica Conditt, 2014. joystiq. Broken Age skips Early Access, hits Steam with season pass. Available: <http://www.joystiq.com/2014/01/14/broken-age-skips-early-access-hits-steam-with-season-pass/> [www.] Last accessed 16.1.2014
- SuperData Research, 2014. US digital games market update: December 2013. Available: <http://www.superdataresearch.com/blog/us-digital-games-market/> [www.] Last Accessed 22.1.2014
- Steam, 2014. The new Steam Community is here. Available: <http://steamcommunity.com/communitycontent> [www.] Last accessed 23.1.2014

- Purchase Robert, 2011. Eurogamer. Valve: piracy a "non-issue" for Steam. Available: <http://www.eurogamer.net/articles/2011-11-28-valve-piracy-a-non-issue-for-steam> [www.] Last accessed: 11.2.2014
- Origin, 2013. Erinomaisten pelien takuu. Available: <https://www.origin.com/fi-fi/great-game-guarantee-terms> [www.] Last accessed 29.1.2014
- GOG.com, 2014. Announcing Our New Guarantee! Available: [http://www.gog.com/news/announcing\\_our\\_new\\_guarantee](http://www.gog.com/news/announcing_our_new_guarantee) [www.] Last accessed 29.1.2014
- Steam, 2013. Steam Family Sharing. Available: <http://store.steampowered.com/sharing/> [www.] Last accessed 29.1.2014
- Steam, 2013. SteamOS. Available: <http://store.steampowered.com/sharing/> [www.] Last accessed 29.1.2014
- Walker Ian, 2012. Shoryuken. Christian Svensson Says DLC Will Not Be Included on Street Fighter x Tekken's PC Disc. Available: <http://shoryuken.com/2012/04/06/christian-svensson-says-dlc-will-not-be-included-on-street-fighter-x-tekkens-pc-disc/> [www.] Last accessed 27.3.2014
- Gamewise. Tomb Raider (2013) – GAME Explorer Edition. Available: <http://gamewise.co/games/45557/Tomb-Raider-2013/Editions/GAME-Explorer-Edition> [www.] last accessed 30.3.2014
- Parkin Simon, 2012. The Guardian. Shigery Miyamoto: A rushed game is forever bad. Available: <http://www.theguardian.com/technology/gamesblog/2012/apr/27/shigeru-miyamoto-rushed-game-forever-bad> [www.] Last accessed 31.3.2014
- Ivanoff Ivan, 2014. gamer Headlines. Battlefield 4 is still 'betafield 4' after the latest major patch. Available: <http://www.gamerheadlines.com/2014/01/battlefield-4-is-still-betafield-4-after-the-latest-major-patch/> [www.] Last accessed 1.4.2014
- Steam, 2014. Early Access games. Available: <http://store.steampowered.com/genre/Early%20Access/?l=english> [www.] Last accessed 1.2.2014
- Sterling Jim, 2014. The Escapist. Steam Needs Quality Control. Available: <http://www.escapistmagazine.com/videos/view/jimquisition/8753-Steam-Needs-Quality-Control> [www.] Last accessed 15.4.2014
- Lien, Tracey, 2014. Polygon. Deadpool and other Marvel Activision titles delisted from digital stores. Available: <http://www.polygon.com/2014/1/1/5263864/deadpool-delisted-from-steam> [www.] Last accessed 16.4.2014

Dyer Mitch, 2014. IGN. GameSpy shutting Down, Hundreds of Games at Risk.  
Available: <http://www.ign.com/articles/2014/04/03/gamespy-multiplayer-shutting-down-hundreds-of-games-at-risk> [www.] Last accessed 17.4