



Ca' Foscari
University
of Venice

Single Cycle Degree programme
in Lingue culture e società dell'Asia e dell'Africa
mediterranea (LICAAM)
ordinamento ex DM 270/2004

Final Thesis

Videogames and isolation

The Galapagos effect on the videogame market

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Academic Year

2017 / 2018

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要旨

世界から切り離した日本文化は、主に島国だということの結果でも1633年徳川家光によって決めた法律の結果でもある。それは外国人の到着も日本人の出発を禁止した「鎖国」として知られている。1853年にマシュー・ペリーが上陸したまで、商業は長崎港しか許さなくてドイツ人・中国人との商業のみに限られていた。今頃の21世紀の日本はその鎖国より違い国になった。世界中の最強国のあいだに位置しているこの日本は、ジャーナリストの意見にとってグローバル化を追ってみている一方特にその市場はまだ「鎖国」の影響を受けているようである。三菱グループの車、ソニーの家庭用電気器具、妙で唯一なガジェット、などのようなグーズは海外にも会えることが確かだが、その裏にもその中こそは日本だけに有名になった山ほどの商品がある。本物の現象は ICT (Information and Communication Technology)にも認められている。

この ICT によって「グローバル市場との親和性に乏しく」さと定義された状況は、ガラパゴス諸島に住む唯一な種類にみえるからこそ「ガラパゴス化」と名付けられてしまった。日本市場に大事な影響を与えるガラパゴス化とその例についてのいろいろなウェブ記事は第二章に調査している。第二章はガラパゴス化の起源やその影響の範囲を調べてみる。この卒業論では日本市場の大勢部分の各一つを調査するのはやりすぎに違いなくて故、その間の一つの世界中に有名な部分だけを注目にすることにした。それはデジタル・エン

ターテインメント、いわば「ビデオゲーム」という部分である。このメディア、コンピューター やゲームコンソルの祖先としてみえる唯一な機器を調査できたスマートなエンジニアによって1950年代米国に生まれてきた。その一つは「Spacewar!」をつくるために使ったPDP-1である。第一章の注目はビデオゲームとコンソルの歴史で、多量のジャンルやゲームに至るまでの成長についての話である。

ビデオゲームの話はその後スタンダードバイにするが、ガラパゴス化の紹介を追ってこの二つの関係、いわばガラパゴス化はビデオゲーム部分に影響を与えるかどうかということを調査するのは目的になる。そのためには、ウェブ記事をもとにしたり、スクエアエニックス・ホールディングスや任天堂という有名な株式会社を注目し、購入者たちにとってもちろん年度レポートにとってどちらか好みだとを確かめるつもりで、そのゲーム履歴を調べしどんな戦略を使って成功・失敗しました理由を説明してみたい。ウェブ記事に載せた意見は卒業論の著者が広めたアンケートで確かめるつもりです。

Introduction

Japanese culture is one that lived isolated from the rest of the world until the last two centuries, mainly due to the country being an island but also to measures that were taken especially by the shogun Iemitsu Tokugawa in 1633-1639 and eventually prevented foreigners from entering the island and Japanese people from leaving (this period came to be known as *sakoku*, “closed country”). For 220 years, until Matthew Perry reached the island in 1853, trades were only allowed with Dutch and Chinese merchants, and in the only Nagasaki port. 21st century Japan is profoundly different – and diverse – from the closed state the Tokugawa created, and the country ranks high amongst the world’s most influential powers. However, remnants of the old *sakoku* appear to be still exerting their influence on the Japanese market. Undoubtedly, goods from the Far East are everywhere to be found: cars produced by companies like Mitsubishi; electronics manufactured by Sony; gadgets of unique looks and utilities. Behind similar worldwide famous products, or sometimes even within the same categorization, there’s a universe of goods that could only create an audience in their original market. The importance of this phenomenon is such that it has an official recognition among the Information and Communication Technology (ICT) group in Japan; its resemblance to the situation in the Galapagos archipelago, populated by species that only found their suitable habitat in the islands, has gained it the name of *Galapagos syndrome*, or *Garapagosu-ka* (ガラパゴス化) as it is stated in a report from the ICT itself. As said, its influence on the Japanese market can be considered relevant, and the phenomenon has been examined and written about in news pieces that are widely accessible today. These will be examined in Chapter 2 of the thesis, together with the most known issues of Galapagos-ka that have been reported as being iconic of the phenomenon; the main focus of the Chapter will be to determine what Galapagos-ka originates from, as well as how it affected the market sectors that will be mentioned.

In a diverse market the likes of the Japanese one, there are plenty of areas that could be affected by the phenomenon; of course, examining in more detail every single one would be too great a task

to undertake in this work. For this reason, the interest will be focused on a specific sector that gathered itself a great number of followers overseas: the “digital entertainment” business, specifically videogames. This relatively recent media was born in 1950s America due to smart personalities that successfully put hands on peculiar machines (precursors of modern-days computers and consoles), to name one the PDP-1 used to develop *Spacewar!*. Chapter 1 will focus on the history of this medium, briefly accounting its birth and evolution until the computers and consoles we know; it will also examine how gaming has evolved into a multi-genre and multi-platform media, providing a huge and diverse choice of titles to its users.

A short hiatus on the subject to introduce Galapagos-ka will be immediately followed by a study on the main interest of this thesis, namely to ascertain whether there is an influence of the phenomenon on the videogames market. With specific focus on two main Japanese companies for the sector, Square Enix Holdings Co., Ltd. and Nintendo Co., Ltd., we will decide which one is overall considered to be most successful (especially based on sales data and popular opinion) and examine their strategies to determine why is this so. Popular opinions found on web news pieces will be confirmed through surveys diffused by the author to sustain the thesis.

CHAPTER 1: The world of gaming

Perhaps the true rise of videogames and the carving of their name into history and in the hearts of people can be traced back to the big-sized cabinets that came to be known as simply “cabinets” or *arcade games*, or also *coin-op* (short for “coin-operated” machines). These big, colorful cabinets can still be seen in some places: once a coin is inserted, they can usually be played with a stick and a couple of buttons, or else with different input sources like guns, vehicle replicas or mats – in the case of dancing games. The coin-operated arcade games were already popular back in the '70s, with games such as pinball and pool positioning as top of the market; things started to change when a new kind of arcade was released in Japan in 1978, one widely known today with the name of *Space Invaders*. Its mechanics were considered revolutionary at that time, and inspired the development of new games with similar gimmicks – like *Galaga* (1981) – or brand new ones – like the famous *Pac Man*, *Donkey Kong* and *Q*bert* respectively released in 1980, 1981 and 1982.

But how did arcade cabinets evolve to become the small and portable consoles that are nowadays widely spread in stores?

1.1 Origin

Arcade cabinets fit quite well the original definition of “video games”: as they were initially conceived, “‘video’ refers to the use of an analog intensity/brightness signal displayed on a cathode ray tube”,¹ therefore a *video game* is a game that runs on a device with similar properties. This conception has profoundly changed: using Wolf’s (2007) words to describe it,

When analyzing a video game, one should examine the four elements that are common to all video games: graphics, an interface, an algorithm, which is the computer program that is running the game, and some kind of player-controlled activity occurring on-screen,

¹ Mark WOLF, *The Video Game Explosion*, Westport, Greenwood Press, 2007, p. 4.

which is also sometimes referred to as interactivity.²

Those four elements have also evolved together with the market. For now, let us go some decades back in time. The story starts in 1950,³ when a game was programmed to run on machines built during World War II. Their reprogramming was made possible thanks to the so-called *stored program architectures*⁴ promulgated by many American universities (Cambridge University to name one), but still the so-born new machines were not suited to run games – due to high production costs and low performance. A machine called TX-0 was later developed by the Lincoln Laboratory of MIT, a far smaller and cheaper device to manufacture due to the use of a particular component, the transistor; eventually another new machine based on the TX-0 was produced, named PDP-1, and was later donated to the MIT by their original developer, the Digital Equipment Corporation. Students from the University were allowed to use both the machines without educational restrictions, and it was a group of students who developed *Spacewar!* (among those Steve Russel,⁵ 1961/62), the first game to be spread to other programmers outside the university. Thanks to time sharing and a new, simpler programming language (BASIC), more and more students began spending time on making games, although they still couldn't be commercialized due to their high production cost. This was to change soon, and by the 1970s cathode ray tube terminals had become more common outside laboratories; besides, new and improved circuits were employed further lowering the price for manufacturing video games, therefore helping the machines being spread in the coin-operated cabinet industry.

Notwithstanding this, coin-operated machines were still not affordable by privates. A first step toward the creation of home-oriented gaming consoles was made by television engineer Ralph Baer. His joint efforts with technician Bill Harrison, who built most of the hardware, and later with Bill

² WOLF, 2007, p. 24.

³ Historical references from Marco ACCORDI RICKARDS, *Storia del videogioco. Dagli anni Cinquanta ad oggi*, Carocci Editore, 2014, and Paul E. CERUZZI, *A history of modern computing*, MIT press, 1998.

⁴A stored program architecture – or stored-program computer – is a computer that stores program data and instruction data in the same space, thus creating a faster and more powerful machine. For more information on the subject, see Paul E. CERUZZI, *A History of Modern Computing*, Cambridge, MIT Press, 2003 (I ed. 1998), Chapter I-

⁵ Steve “Slug” Russell is the American computer scientist that mentored Bill Gates on the use of PDP-10.

Rusch ultimately led to them concluding an agreement in 1971 with the television company Magnavox: this cooperation resulted in the *Magnavox Odyssey*, the first true home console to be known. This console could display on screen three spots at once, and was sold with several games – for example a ping pong game, a chasing game and a shooting game, each with a different dedicated controller. In the end, by the way, the collaboration with Magnavox was the very reason for *Odyssey*'s failure: while Baer had initially planned to sell the console for 20\$ and designed it with that purpose in mind, the company changed the original idea to the point that it removed all dedicated joystick Baer had designed and opted for selling them separately, ultimately pricing the console 100\$/piece. As D'Argenio (2017) suggests in his piece for Gamecrate,⁶ Magnavox may have based its advertising campaign on other interests, namely selling TVs (their main product), and accordingly arranged the distribution; as an example, the article explains that the company tried discounting the console to increase sales, but only “provided they bought a new Magnavox TV”⁷ – and their combined price eventually surpassed the console's cost. Despite this, *Odyssey* paved the way for the evolution of the video game industry, and the following year Nolan Bushnell and Ted Dabney⁸ decided to start their own business at that time: this is how they created Atari. They hired a new collaborator, Allan Alcorn, who was charged with programming a new version of the digital ping pong game that had already reached the market: his new version, which they decided to call *Pong*, started as a test to Alcorn's game design abilities, but it was so astonishing a result that they eventually decided to officially release it to the public in March 1973, and other companies tried to program their own *Pong*-like game hoping to meet the same fate – though not everyone managed to.

Later, the American company Midway developed the racing game *Wheels* and the target shooting *Gun Fight*, both released in 1975 and driven by the ambition of expanding their coin-op machines to new genres. These were licensed versions of two Japanese games (*Speed Race* and *Western Gun*) by the famous Taito Trading Company, which opened contacts between the Japanese

⁶Angelo M. D'ARGENIO, “Gaming Literacy: Magnavox Odyssey, the world's first game console”, in *Gamecrate*.

⁷ D'ARGENIO, *ibid*.

⁸ Bushnell and Dabney are also creators of what is today recognized as the first coin-op cabinet, *Computer Space* (1971).

and American video game industry.⁹ Taito's name is still widely known for the *Pong*-like game series *Puzzle Bobble* (1994), one of the most played coin-operated machines that was also ported¹⁰ to a best-selling computer game. The company was later absorbed by Square Enix, which will be discussed in further detail in the next chapters. It is important to note that, differently from its predecessors and contemporaries, *Gun Fight* from Taito was the first arcade incorporating a microprocessor, like modern video games do. However, computer games were still far from being developed: although in the 1960s some attempts were made at creating video games for mainframes and minicomputers, the hardware still lacked the adequate capabilities to make a game run; astonishing progress was made in the following decade, most importantly with new programming languages widely available for students to test and the birth of computing magazines that made it far easier to spread the knowledge worldwide. Nevertheless, while mainframes undoubtedly kept a step ahead of arcade machines in terms of overall potential, they were still no match for them when it came to game processing – due to their insufficient performance and inadequate displays. Games developed for computers focused on strategy and puzzle solving, and were mostly *text-based* games.¹¹ The most famous in the latter genre may be identified in Will Crowther's *Colossal Cave Adventure* (1976), which combined elements from the contemporary tabletop RPG *Dungeons and Dragons* (1974, Tactical Studies Rules, Inc.) and its developer's passion for caving.¹²

1.2 Golden Age of West and East

The beginning of what is now defined as “the Golden Age” of arcade games is conventionally the year 1978, but its roots can be retraced back to a couple years before that, when Atari produced *Breakout* (1976), where the player had to destroy a wall of bricks by controlling a paddle and making

⁹ Taito and other major companies named in Chapter 1 will be discussed in further detail in the next chapter.

¹⁰ Porting is the process of adapting a software to work on a different gaming environment than the one it (follows from note) was originally created for. Specifically, a videogame undergoes “porting” when it is adapted to work on a console other than the one it was originally developed to work on.

¹¹ As the name suggests, in text-based games the narration was displayed to the player as text, and progress in the game was based on keyboard inputs from the user.

¹² A subsequent version with graphic feedback, *Adventure*, was developed and published by Atari the following year for their Atari 2600.

a ball bounce towards said bricks. It took inspiration from Atari's previous success *Pong*, and was built by Steve Wozniak with the aid of a young Steve Jobs (together they would give birth to the famous Apple company in April 1976). In an interview,¹³ Wozniak revealed he was hired by Bushnell because he could build games with a very small number of chips (normally a cabinet would use about 150 chips, while Wozniak could do the same by using no more than 50), and put that into practice for *Breakout*. Its success also reached Japanese producers.

Atari then decided to get back to more work on *Pong*: the company wanted to make a smaller home version of the game, and "Project Darlene", a prototype aimed at expanding their market, was eventually sold in 1975 as *Home Pong*, a home system that brought the already famous coin-op into people's homes. Although buyers were still influenced by *Odyssey*'s failure, the console struggled its way to the shops but eventually caught attention and sold 150.000 copies within a single month from launch (*Odyssey* had sold a total of 350.000 copies in its whole lifetime).¹⁴ As it had happened with the coin-op *Pong*, rival companies tried emulating the home version, and it was eventually surpassed. In fact, in 1976 Fairchild Semiconductor, a California-based semiconductor company, developed the first programmable console which they named *Video Entertainment System*, or VES (renamed *Channel F* the following year). Like *Home Pong*, VES was able to run different games, but what truly makes it stand out is how it was enabled to do so: it introduced the so-called ROM cartridges that included one game each like *Tennis*, *Hockey* and *Tris*; most importantly, each game had colors without the need to use specific plates to apply to the screen.¹⁵

Atari followed on their track, and used the same cartridge concept in their next console, *Atari VCS* (Video Computer System) later renamed *Atari 2600*; provided that its enhanced graphics and the line-up of available titles had already gained it the "best-seller" title, Bushnell decided anyway to

¹³ Benj EDWARDS (5/4/2007), "Woz was here – Steve Wozniak on his gaming past", in *Gamasutra*.

¹⁴ Reference for the data: "Home Pong compie 40 anni. È stata la prima console per videogiochi", in *La Repubblica*. http://www.repubblica.it/tecnologia/2015/08/01/news/home_pong_compie_40_anni_e_stata_la_prima_console_per_videogiochi-120242622/

¹⁵ Magnavox had arranged a similar system for *Odyssey*: "They also included colored plastic overlays, which would stick to a TV via static cling in order to give the games a little bit of color. This also allowed them to repackage the same game multiple times". (D'ARGENIO, *ibid.*)

further secure his share on the market by saturating it with an enormous quantity of consoles that wouldn't even give competitors the chance to develop their imitation of the machine. This strategy itself eventually forced him to sell his company to Warner Communications to cover the financial requirements for the operation. It is worth to mention that Atari also obtained the license to develop portings of many coin-op titles including *Space Invaders* for their home consoles, which strengthened their position of best sellers in the industry. Their main rival would later become the toy company Mattel with their *Intellivision* (1980). Their marketing strategy was directly aimed at destroying Atari's console by having a famous testimonial – George Plimpton – appraise the superior graphics and capabilities of Intellivision against an already obsolete Atari 2600.¹⁶ After previous attempts at console manufacturing,¹⁷ Coleco (Connecticut Leather Company) tried reentering the market with *ColecoVision* (1982), created with the intention of making players feel like they were playing coin-op games (an *arcade perfect* in jargon); in fact, Coleco obtained licenses for arcade games like Nintendo's *Donkey Kong* – their porting is still today among the best ones created. Their success was also due to other factors, namely expansion modules that could boost the console's capabilities and most importantly new fruition modes including compatibility with Atari 2600 games: a revolution in the whole market.

Coin-ops were a striking success in Japan too, although their market lacked a major success the likes of *Breakout*. It was of course only a matter of time: Taito designer Tomohiro Nishikado was determined to renew an old concept for a game called *Space Monsters* that hadn't caught attention from the higher-ups; inspired by George Lucas's movie *Star Wars*, that had hit cinemas in 1976, and willing to make a game that could also appeal to Western audiences, Nishikado decided to exploit the mechanics behind the Western success *Breakout*. The result is *Space Invaders* (1978), where the player controls a spaceship (equivalent to *Breakout*'s paddle and ball) and has to shoot several rows of aliens (the bricks) gradually appearing on screen. *Space Invaders* was a revolution in the arcade

¹⁶ Referenced in: Matt BARTON, Bill LOGUIDICE, "A History of Gaming Platforms: Mattel Intellivision", in *Gamasutra*.

¹⁷ Mostly worth of a note, Coleco *Telstar*, a million-unit selling console.

machine market, thanks to the many innovations it introduced: first of all, a loop soundtrack (up to that time only used for the title screen) not only including shooting sounds and explosions but that of a heartbeat too, that fastened its pace accordingly to the game's duration – so as to build some sort of anxiety in the player; tactic elements consisting in enemies moving in rows through the screen and that could shoot back to the player, who in turn could either hide behind barriers or directly shoot the enemy's fire to make it blow up; finally, although this was not a calculated feature, due to a bug the aliens too would fasten their movement speed the longer the game lasted, resulting in an even more engaging gaming experience.

While the attention was focused on *Space Invaders*, another Japanese company made its move towards commercializing a success. In 1977, Namco hired Toru Iwatani, whose mind of great creative capabilities completely made up for his lack of work experience. After developing a first arcade, *Gee Bee*, Iwatani was asked to think about new concepts, and it didn't take long for him to do as instructed. With the main purpose constantly in sight – namely, involving in the gaming world a female audience that had to that point always been unwillingly excluded because of the contents – Iwatani resolutely refused a request for a war game and instead decided to render a Japanese tale of a creature who protected kids eating the monsters that threatened them. A lucky inspiration from a pizza with a slice eaten was enough to give birth to a new icon of video games: Pac Man. This simple, geometric protagonist was to exit a labyrinth, eating everything he could inside of it to amass points and all the while running away from four cute-looking ghosts (that in spite of their looks could kill the character on touch making him lose a life). The game implemented *Space Invaders*'s concept of hostile enemies, that could be defeated by eating power-ups spread throughout the maze, also adding up a rudimentary concept of cutscenes.¹⁸

Pac Man has been of inspiration for other games of its same genre, previously labeled as *maze games*. Two similar games are *Pengo* (1982) and *Lady Bug* (1981),¹⁹ respectively published by Sega

¹⁸ Cutscenes are brief videos that automatically play at certain points of the game. In *Pac Man*, these are short non-playable animated scenes rather than videos.

¹⁹ For more, ACCORDI RICKARDS, *Storia del videogioco*, p. 53.

and Universal Pictures; maze games would later evolve into *platform games*, an improved version of the genre. These paved the way to a Japanese company that had been in the Hanafuda²⁰ industry for a century and was destined to become a titan in the video game industry: Nintendo.

Under the guidance of president Hiroshi Yamauchi, his son-in-law Minoru Arakawa begins exporting Nintendo games to the USA, opening an American branch of the company; they didn't manage to gather in the US the same success they had in Japan, though, because all the games they at first imported were no innovation for the American gaming panorama (they all belonged to genres the Americans were more than familiar with). The task of thinking something new and astonishing was left to game designer Shigeru Miyamoto, author of games still insanely famous as of today. Having entered the company as a young man with the wish of designing toys, in 1979 he was asked by Yamauchi to design an arcade game instead with the only restriction of choosing an English name to make it more appealing to US audiences. His idea was that the game would feature a stubborn gorilla, a bizarre solution that brought to life another great game icon: Donkey Kong. The main protagonist of this game called *Donkey Kong* is actually a carpenter, Jumpman, who has to rescue a girl by jumping his way through several levels of platforms; the mission is made harder by the gorilla throwing barrels and flames at the player, who has to reach the top and save the girl from the beast. The three characters, the animated narrative premise with the gorilla kidnapping the girl and the desire to know how the game ends rather than merely obtaining the highest score incited people to keep on playing, and have marked Nintendo's entry in both the arcade and home console industry – which, as mentioned, started with Coleco porting *Donkey Kong* on their ColecoVision. The gorilla would later be protagonist of a new game series called, unsurprisingly, *Donkey Kong*, whence the character got his name. This time, the Japanese producer also caught attentions from American players, and the game's popularity was drastically increased by Nintendo winning a lawsuit moved by Universal Studios.²¹ Nintendo of America more than repaid their opened debts, and had to convert unused

²⁰ Hanafuda are Japanese cards used to play a wide variety of games. The name is therefore also used to indicate the games played using those cards.

²¹ Convinced that *Donkey Kong* was a plagiarism of the *King Kong* movie they produced a remake of, Universal City

Nintendo cabinets and produce new ones to meet customers' demand.

The Golden Age also marked the birth of new game genres. The theme of invasion in *Space Invaders*, for example, inspired several *war games* like Atari's *Missile Command* (1980), that entrusted the player with the mission of defending America from missiles launched by the Soviet Union; since the player could only use a limited number of ammunition, there was no "victory" scenario in the game: the final goal was to resist as long as possible, and eventually witness Soviet missiles falling on a city and destroying it for good – a message from developer Dave Theurer that left people pondering on the uselessness of war. Atari's Dave Theurer is also the mind behind *Tempest* (1980), born as a first-person shooting *Space Invaders* where creatures moved towards the player and he has to shoot them before they reach him; a new success, that would take Theurer a whole year to develop.²² Color graphics, for the first time implemented in one of their games through the use of a vector graphics generator (the Atari X-Y Generator), and a bug that let users play for free if they surpassed a certain score made this title one of Atari's most played, together with *Battlezone*, released the same year. *Battlezone* was unique for the time: the cabinet was designed to resemble the inside of a tank and also featured a periscope that could be used to zoom in on the battlefield, and caught the attention of the army that wanted to use a similar version to train recruits. Its developer Rotberg ultimately had to accept the commission, but requested that he should not be contacted anymore for that purposes. Finally, *Defender* by Williams Electronics (1981) made use of the same concept behind Atari's *Asteroids* (1979), a modified version of *Space Invaders* where the player could move everywhere on the screen to avoid asteroids. In *Defender*, the player had to prevent ten astronauts from being abducted by aliens; each extraterrestrial would transform if it managed to capture a human, bringing the game to a higher difficulty level. Both *Defender* and *Asteroids* introduced new *scrolling*

Studios president Sheinberg threats Coleco president Greenberg and Nintendo to sue them; while Coleco offers to pay him royalties on profits from the game, Nintendo accepts to call on a court. It had been previously decided that the original 1933 *King Kong* movie had become public dominion, and Universal themselves had produced a remake without having to pay copyright based on this affirmation; moreover, not only didn't they manage to demonstrate that they had gained rights for the movie with their remake, but Nintendo won the lawsuit because nothing could prove they had actually copied the movie for their game. Referenced in ACCORDI RICKARDS, *Storia del videogioco*, pp. 58-59. (previous note)

²² Although nowadays this is an astonishingly short amount of time when developing a game, in 1980s only few needed this much time to be completed.

mechanics, through which the game designer could change the setting at his will.²³

Role playing games – or RPGs – also saw their rise in the Golden Age, thanks to two games by Richard Garriott – a.k.a. Lord British. Student in a high school in Houston, in 1979 Garriott successfully programmed a game in BASIC language on his Apple II computer, and called it *Akalabeth: World of Doom*. Having tried the game, his boss at the local computer shop Garriott worked at, decided to stock it, and one of the few copies sold reached software producer California Pacific Computer, who offered Garriott a share from the profits should he grant them rights for the game. The game eventually sold 300.000 copies, encouraging Garriott to develop a new RPG series called *Ultima* (1981) – the one that really made him famous. Both the games are inspired by Tolkien's fictional settings,²⁴ and exploit mechanics gamers had yet never seen: they could now build up their own character, initially choosing one out of four available races, each with their unique characteristics that would later influence the player's statistics; the so-chosen character could gain *experience points* that would enable him to gain levels and *stat points*²⁵ that could be applied to strengthen the character. This never-before-seen mechanics and narrative would fascinate players of every generation ever since.

1.3 Old “console wars”

Computer games also deserve more than a mere mention. By 1970, new programming codes had become available, which would also lower selling prices. Diffusion was still another matter, and programmers devised several stratagems to spread their games worldwide: magazines, books and newsletters were chosen as a first means to diffuse codes that the player could type in their terminals to play games. This method was first experimented by the likes of Crowther (programmer of *Adventure*), but it was eventually abused due to the lack of copyright protection; Apple is among

²³ As the name suggests, scrolling mechanics progressively moved the game's perspective in certain directions (e.g: a new screen would appear sliding from the right).

²⁴ J.R.R. Tolkien, author of the fantasy series *The Lord of the Rings*, that gathered immense popularity in the 1960s and has remained so ever since.

²⁵ Short for *statistics points*: in RPG games, the character gains statistic points by levelling up, that benefit characters' parameters such as strength, vitality or HP (*hit points*, representing the damage that the character can endure before dying) or *dexterity* (characters' proficiency in the use of weapons, that enables the player to use higher-levelled weapons).

those who used this method. Distribution was later operated through physical supports such as ROM cartridges, floppy disks or cassette tapes or also by mail.

In the following decade, companies started advertising their offers to raise customers' awareness of computer gaming, and each of them eventually had main "interest areas". In Europe and US, for example, the most known names were Apple, Atari and Commodore, while in Asia NEC and Sharp dominated the market. Since at those times computers still had a long evolution process to go through, producers put up their competition by enhancing terminals' color abilities and pixel resolution with 8-bit and 4-colors as a starting point. Among their most known machines, the following emerged:

- **Commodore 64** by Commodore International (1982), with competitive prices and performance that made the console the most bought of its time, also thanks to backwards compatibility for their old controllers (Commodore used the same ports built in Atari 2600);
- **Macintosh** by Apple (1982) lacked the color resolution of his predecessor Apple II but had new and higher pixel resolution, and its support for a graphic user interface (GUI) system attracted the attention of developers (and customers);
- IBM's **Personal Computer AT, or "PC/AT"** (1984), supporting a 64-colors resolution which was higher than prior IBM models (thanks to this, the machine kept up the competition against Commodore 64 and the likes, although it still lacked other features such as built-in sound chips).

Later innovations included a 64-bit processor for Atari's *ST* and Commodore's *Amiga* (both commercialized starting 1985), but their costs gave IBM machines the chance to stand up against them for a short time: notwithstanding the introduction of 256-color graphics in IBM's *Personal System(PS)/2* (1987), the lack of built-in sound chips still made them fall behind Atari's and Commodore's creations.

The flourishing of these new and better performing computers, together with the lack of titles that could really be considered good, led to a major crisis for the American console industry in 1983,

and companies big and small alike also faced hard times – Atari itself, for example, had to get rid of thousands of unsold games and consoles including Atari 2600. This severe decline in the West conversely helped the rise of the Japanese videogames market, opening with Nintendo's striking successes with their new consoles: following their *Game & Watch* of 1980, the first handheld console to gain major success, the company also released a brand new home console in 1983 (while the US market was deep into its crisis), that was commercialized in Japan as the *Family Computer* or *Famicom* for short but released in the West as the *Nintendo Entertainment System* or *NES*. Still widely acclaimed as of today, the third-generation console NES, with some features slightly different from the Japanese original Famicom,²⁶ debuted on the American market in 1985 and in Europe in 1986, but it didn't gather the same success in the latter as it was already dominated by consoles like the Commodore 64.

The next (fourth) generation of consoles marked a cooperation between Hudson Soft and NEC Home Electronics, which gave birth to the *TurboGrafx-16 Entertainment SuperSystem* console (released in Japan in 1987 and in the US in 1989), simply known in the West as *PC Engine*. Although it still run an 8-bit CPU, while most of its contemporaries had already moved on to 16-bit ones to test it, its importance lies in the fact that it was the first console to have a connectable add-on that supported the CD-ROM, a brand new type of support for games which still hadn't been exploited by others. The support, named CD-ROM² System (シーディーロムシステム, *Shiidii Romu Romu Shisutemu* in Japanese), also reached America and Europe with the name TurboGrafx-CD, and enabled the user to play games as well as music CDs. The add-on underwent several improvements throughout the ensuing years, and in the end the TurboGrafx-16 and its CD reader add-on were combined into a single device, the *PC Engine Duo*, launched in Japan in 1991 and the following year in the American market.

Still, although it managed to keep up to its competitors in Japan for a while (but not in foreign

²⁶ Most importantly a region-lock feature that prevented Japanese games from being played on the American version of the Famicom, but also relevant design differences and added features – like a built-in microphone in the Japanese controllers.

market), TurboGrafx was eventually far than outshone by Nintendo's *Super Famicom* (1990) – released in America (1991) and Europe (1992) as the *Super Nintendo Entertainment System* or SNES for short. Nintendo's one and only competitor on the 16-bit home console market was Sega with their *Mega Drive* (or *Genesis* as it was also known in America, launched in 1988 in Japan and in 1989 in North America). Among the games that were initially available for this console, the most noteworthy – to the point it became the first of a long series – is *Sonic the Hedgehog* (1991), and its protagonist (a blue hedgehog named Sonic) is still today considered Sega's mascot. However, Sega's home console and handhelds couldn't put up competition with Nintendo, already an established company in the digital entertainment market: Nintendo won over all their competitors thanks to the iconic handheld *GameBoy* (1989), whose monochromatic 2D graphics, a 35-hours battery durability – something that Sega *GameGear* portable (released 1990 in Japan and 1991 in NA and Europe) could never dream of²⁷ – and a more flexible third-party software support²⁸ established Nintendo's supremacy on the handheld market until later times.

1.4 The 1990s

In the 1990s video games profoundly changed. Arcades managed to come back from a period of crisis (obviously due to the rise of the home console market) especially thanks to improved 3D graphics, exploited in games like *Street Fighter II* (Capcom, 1991) and *Virtua Fighter* (1993) that eventually made their fortune. This wasn't to last long, since the 3D graphics used in games like those mentioned inspired a team of people from Sony Computer Entertainment to create their own console, the *PlayStation* (commercialized in 1994), that made its way to become a titan in the home consoles market. Standing beside the PlayStation, Sega and Nintendo also exploited 3D graphics with 32- and 64-bit processors in their new *Saturn* (Japan release: 1994; NA and Europe release: May/July 1995)

²⁷ Although running a 16-bit graphics, its battery couldn't last as long as the GameBoy's exactly due to its graphics. Further detail on GameBoy will be given in the upcoming chapters.

²⁸ For a console to support *third-party games* means to have allowed licenses to companies other than the console manufacturer to develop titles for their hardware. Nintendo NES was the first console supporting software developed by other companies.

and *Nintendo 64* (Japan: June 1996, NA: September 1996, Europe: March 1997).

New ways of advertising were devised, with *sharewareing*²⁹ being the standard go-to; as games became more and more demanding in terms of size, demos were further shortened to be digitally distributed on the internet or as physical CDs with magazines. Improved graphics allowed for new game genres to be developed, and games like *SimCity* (Maxis, 1990) were born in those years. Online play functionalities were also made available and exploited by titles like the famous *Age of Empires* (Ensemble Studios, October 1997) and the *Warcraft* series (Blizzard, first installment: *Warcraft: Orcs & Humans*, October 1994).

Three main home consoles were released in 1994: *Sega Saturn, PC-FX* by NEC Home Electronics and the Sony *PlayStation*, the last destined to stay forever on the market. The wide choice of titles for PlayStation had it outsell its competitors very quickly, and not even the support of major companies who produced Super Famicom games was enough for Nintendo to keep their pace. Sony effortlessly managed to outshine the release of a new Nintendo console (*Nintendo 64*, 1996) whose flagship title belonged to the leading Mario series (*Super Mario 64*). While 3D graphics were settling as a standard on consoles (with renowned titles the likes of *Super Mario 64* and the *Zelda* series on N64 and the *Crash Bandicoot* and *Spyro the dragon* sagas on PlayStation), video games also debuted on mobile phones when Nokia distributed its 6110 model with a pre-installed game, *Snake*, whose name is still widely remembered.³⁰

Sega preceded their rivals for the sixth generation with a new console, the *Dreamcast* (1998). Many of the features its titles exploited were an innovation for the industry, to name some open-world gameplay and quick time events,³¹ but the console – as well as its developer – was doomed to fail: its

²⁹ *Sharewareing*: distributing briefer versions, or *demos*, of games already available in stores as a way of helping the buyer decide whether to purchase the full version.

³⁰ For more on mobile gaming, see 1.6.

³¹ *Open-world*: also known as “*free roaming*” or “*sandbox*” games, as the name suggests, owe their name to the higher freedom of movement they leave to the player. While other games have a linear structure – that is, the player must follow a main quest and cannot explore the game world freely – open-world games also leave some space for the player to roam (follows from note) the virtual world before proceeding in the main quest.

Quick time events (QTE): instances of some games when cutscenes gain an element of interactivity – in other words, while a cutscene is playing the game suddenly prompts its user to press keys on the controller to make the character perform a pre-established action.

predecessor Saturn had relatively failed to catch attention, and a case of copyright infringement that eventually damaged Sega's reputation only made things worse.³² In the end, the company had to withdraw from the home console market and rely on publishing games for their once rival Nintendo, all to the advantage of the consoles to come. The first one to benefit this situation was Sony's *PlayStation 2* released in 2000, which had previously been announced and was highly anticipated by fans. PlayStation 2 could connect to the Internet via an Ethernet cable and had increased processor and graphic abilities; games now ran on 4.7 GB DVD discs, also allowing the console to read normal DVDs thus transforming it into an actual home entertainment system rather than a mere gaming console. Meanwhile, American PC manufacturer Microsoft also entered the console market with *Xbox* (2001), whose hardware could benefit from being made for a great part of Microsoft's PC technology – which made easier to port PC games to console for developers. Xbox almost immediately got an exclusive that eventually proved more than valid, *Halo: Combat Evolved* (November, 2001, developed by Bungie and distributed by Microsoft), first installment in one of the series that would make the history of gaming. 2001 also was the debuting year for another series of some importance, *Grand Theft Auto* (GTA for short), that popularized open-world games with a non-linear plot; its themes, though, proved to be a bit too mature, and eventually ended up being the center of debating.

During this generation, new attempts were made at creating alternate controllers for home consoles, to be used with certain games. Just to name the main ones:

- a “dancing mat” for Konami's *Dance Dance Revolution* (September, 1998), a dancing game as suggested by the name, which evolved from a previous version of foot controls;
- Sega designed a maraca controller, which they named *Samba de Amigo*;
- Nintendo made some of their *Donkey Kong* games compatible with a new drum-like device, the *bongo controller*;

³² See *Sega v. Accolade* lawsuit, with Sega ultimately losing the suit they issued.

Moreover, two controllers that somehow never abandoned the market since they were developed for Sony PlayStation 2 games: Sony's *EyeToy*, a camera initially bundled with the game *EyeToy Play* that could detect the player's movement to trigger reactions in-game (NA/Europe: 2003; Japan: 2004), and a guitar-shaped controller that game publisher RedOctane bundled with their new title *Guitar Hero* (NA: 2005; Europe: 2006). It is also worth to spend some more words on *Guitar Hero*: as the dedicated controller hints, the game consisted in a collection of famous old and contemporary songs that could only be played with the dedicated controllers; this is what made the franchise so highly acclaimed, and the series has been continued by the publisher ever since, each time with new compilations of songs and also with the addition of newly designed controllers (like microphones or drums).

Somewhat obscured by the console war, mobile phones were also starting to evolve at that time: while Japan was already populated with phones that could run less elaborated games as back as 2000, interest in the Europe market was first brought to practice in 2003 with Nokia's new mobile phone model, the N-Gage; though it was well acclaimed by the public Nokia wasn't content with what they'd created, and ultimately withdrew the phone from their lineup. The ones to truly succeed in this task and create their own online game stores were Google and Apple, the latter one also starting a line of mobile phones in 2007 that they called iPhone.³³

1.5 *The XXI century*

By the sixth generation of consoles, the future competitors for the upcoming digital entertainment sector would be on the one side the American Microsoft – already confirmed as a renowned OS manufacturer – that had debuted on the console market in 2001 with their Xbox; and on the other hand Sony, that had far than established themselves a reputation in said market especially with their forte PlayStation. At first, though having earned a reputation and having managed to keep up with their rival, Microsoft couldn't beat the one Sony had built up throughout the years of

³³ More about Google and Apple in the ensuing chapters.

advantage they had gained. This was to change in the upcoming (seventh) generation.

Their only true competitor being Nintendo's handheld devices, Sony opened the new generation³⁴ in 2004 (2005 in the West) with a brand new portable console, the *PlayStation Portable* (or PSP for short), that offered power and graphics superior to those of its contemporaries and a wide choice of games, at least in Japan: as a matter of fact, most of them being visual novels and videogames based on *anime*, the title lineup for this console was significantly reduced in the West, although PSP had obtained its fair share of buyers. Furthermore, later in the same generation (2009) Sony also released an improved version of PSP which they named *PSP Go*, slimmer and redesigned.

Sony's handheld was directly followed by Microsoft's new home console: *Xbox 360* – launched in 2005, preceding their rival's *PlayStation 3* released in 2006. The two newcomers had very similar technical specifications: both supported HD graphics, had a secondary memory storage for save data and downloaded content and could connect to the Internet via Ethernet cable as well as Wi-Fi, all the while offering a companion to online gaming – Xbox Live and PlayStation Network.³⁵ Their performances made both consoles fierce competitors of PC gaming; nevertheless, thanks to a significantly lower launch price (depending on the model, \$300/\$400 for the former and \$500/\$600 for the latter)³⁶ Xbox initially sold more units than PS3. By the start of the next generation, anyway, Sony managed to claim their throne back by introducing a “slim” version of their PS3 (slimmer, better performing and cheaper as well) and an evolution of the EyeToy they previously launched with PS2, the *PlayStation Eye*, a camera with overall the same mechanics as its predecessor but far more powerful in detecting the player's movement through the use of a dedicated controller (the *PlayStation Move*), different from the standard ones in shape and featuring a gum ball that enhanced the camera's detection capabilities.³⁷

Finally, 2011/12 marked the birth of the eighth console generation, which is still ongoing.

³⁴ It was actually Nintendo the one to open the generation with a new handheld. This will be discussed separately.

³⁵ These will be discussed later.

³⁶ Source: IGN <http://www.ign.com/articles/2016/07/27/playstation-3-launch-price-a-total-shock-to-microsoft-a-ign-unfiltered>

³⁷ It is worth to mention that PlayStation Network – Sony's online companion – was free for that generation, while Xbox Live required a monthly fee for its subscription – a difference that ultimately may have attracted more players.

Competition between Sony and Microsoft is still alive, and they respectively released *PlayStation 4* and *Xbox One* almost simultaneously (November 15 and 22, 2013); Sony also launched the new handheld *PS Vita* in 2011, a successor to the PSP portable system. Both Sony's and Microsoft's home consoles have highly improved features, stunning graphics and a new physical design and user interface, new functionalities and improved online gaming experiences. This time Sony had the better start, again mainly due to price issues: *Xbox One* was more expensive since it was bundled with the so-called *Kinect* device, already released in the former generation of consoles as an optional add-on to buy separately but this time included with the console pack – which inevitably made the pack more expensive.³⁸ Also, both competitors released improved versions of their new-generation consoles in 2016: at E3 conference on June, Microsoft first announced their *Xbox One S*, in three models with different storage capabilities commercialized throughout August of the same year; Sony released two different versions of PS4, called *PS4 Pro* and *PS4 Slim*, respectively an improved and a smaller model of PS4 with doubled storage capabilities and higher graphics support, announced in September and commercialized in September (Slim) and November (Pro). Microsoft has also recently released *Xbox One X* (November 2017), a powered version of XBox One with higher graphic resolution and performances.

1.6 PC and mobile gaming

As we already saw, home consoles are but one among the several supports for videogames currently available to players. Computers and mobile phones, too, are part of this market; in Japan, though, their use as gaming consoles has waned as a consequence of the arrival of home consoles: as Ashcraft (2013) suggests,

During the early 1980s, the PC was the only game in town – literally. [...] Nintendo's decision to call its home console the "Family Computer" and release a keyboard and

³⁸ Sony has brought on their camera add-on too from the previous generation: the *PlayStation Camera*, with a design very similar to Xbox Kinect, doesn't even require a dedicated joystick to work and can be bought separately from the console.

floppy disks for it shows just how much the computer dominated at that time (likewise, so does Sony's decision to name its console arm "Sony Computer Entertainment"). Electronics makers reappropriated the word "computer" for home consoles, and in the process left PC gaming behind.³⁹

It has already been evidenced how video games first debuted on computers when *Spacewar!* was developed by students at MIT, never completely abandoning the platform. Computer games were already mentioned in several instances, from *Pong* to *Adventure* all the way to more contemporary day portings of arcade games like Taito's *Puzzle Bobble*. People born in the Golden Age of videogames up to the 1990s will surely remember the rise of computers, which overall happened together with the arrival of new computer games. Since they weren't as popular in the 1990s as they currently are, ways of increasing people's awareness of them were devised; to mention one, filmmaker Disney licensed a number of games to feature characters taken from their animated movies: they're known in Europe as *Action Games*, to name one *Disney's Hercules Action Game* (1997). Since the 1990s, computers have become increasingly powerful and can run games with high requirements in graphics and performance, and some machines are produced with the specific purpose of running games without interfering with other processes (they're commonly known as *gaming computers*).

Also, as online game functionalities improved the internet has seen the arrival of online shops where users can buy digital versions of games;⁴⁰ this also includes porting as well as remakes and remasters⁴¹ of old games that can all be easily downloaded on modern computers and consoles, whose storage capabilities now allow saving great amounts of data. Downloadable games include both classics and new entries on the market; as for how to obtain them, the afore mentioned PlayStation Network and Xbox Live offer online stores where thousands of games and game related content can

³⁹ Brian ASHCRAFT, "Why PC Gaming Is Still Niche In Japan", in *Kotaku*.

⁴⁰ Stores first opened with the 2005/06 new generation consoles, Xbox 360 and PlayStation 3.

⁴¹ A *remaster* is a graphically polished version of a game originally developed for a console of previous generations (see *Final Fantasy X/X-2 HD*). When a game is too old for its graphics to be merely polished, or when some features or elements are also added to its older version, developers usually *remake* it from the very beginning (see *Final Fantasy VII Remake*). (previous note)

be directly downloaded on the consoles, and newer computers also have this feature: while each manufacturer offers his own proprietary store, a new platform called *Steam* was released in 2003 that enabled any OS to download games on PC.⁴² In an era of *multi-platform games*, namely games that are available for quite any gaming console on the market, these stores overflow with content and seldom offer discounts too, especially during festivities or special events like the so-called Black Friday.⁴³

It is worth to mention that as far as computers are concerned, the current bestsellers lineup is one made of multi-platform titles – e.g. *Assassin's Creed* saga by Ubisoft and *Call of Duty* by Activision – and exclusives as well – the recently released *Cuphead*, developed by two individuals from Studio MDHR, and the aforementioned *World of Warcraft*, an online game. While genres such as action and war games are a multi-platform success, PC gaming can also boast productions that while being available on different platforms are mainly played on PCs. They mainly belong to two genres:

Indie: short for “individual developers”, as the name suggests, are games that are usually developed by a very small group of individuals – if not only a couple of them, like with *Cuphead*. These individuals tend to either use a wee budget to develop simple games, or to find alternative ways of funding – mainly crowd-funding projects based on sites like *Kickstarter*; these alternative ways of gathering funds, however, don't usually compromise the result. *Cuphead* and *Undertale*, for example, are extremely peculiar in their genre. The latter was first sold starting September 15, 2015, and its simple 8-bit-like graphics (that doesn't appeal in itself to most contemporary gamers) tells the story of a century-long fight between humankind and monsters, offering the player what appears to be a simple choice: roaming the underground as a peaceful individual in search of a way home, or being a merciless mass killer that spares nobody along his path. However, this choice will heavily influence

⁴² For more information on Steam, read Marco ACCORDI RICKARDS, Francesca VANNUCCHI, *Il videogioco: mercato, giochi e giocatori*, pp. 71-73.

⁴³ “Black Friday” refers to the last weekend in November, when online stores offer discounts on any kind of products – of which video games only represent but a small portion.

the gameplay, and in some cases even future runs⁴⁴ of the game: the “genocide” path will completely distort the soundtrack and make any non-playable and non-hostile character⁴⁵ disappear from the scenario, also leading the player to a different and sketchy finale. In this case, some non-playable characters will show “memories” of the player having chosen a different path before the current one.

Cuphead, developed by two brothers working for StudioMDHR Entertainment, is a “run and gun” 2D scrolling game, where the player moves between different environments continuously fighting boss monsters; its cartoonish graphics, definitely far more elaborated than *Undertale*, along with a high level of difficulty, have immediately caught the players’ attention.

Casual games: titles belonging to this genre are easy to play and don’t require learning particular skills (they are, thus, more similar to pastimes). In a piece for *Wired*,⁴⁶ Kohler (2010) considers *Pac Man* to be the very first example of casual game – although, note, it was born as a coin-operated cabinet. *Life-simulation games* are a derivation of casual games: as the name suggests, these games simulate real life situations and can be of different nature. Well-known in the genre is for example *Goat Simulator*, where the player controls a goat running wild in the streets of a city; the uncontested champion of this genre though is *The Sims* saga: a social life simulator, first developed by Maxis in 2000, where the player creates his own virtual character, and has to fulfill various tasks like studying or finding a job, or also cleaning one’s home. The game is still now so successful that new content and separate installments are periodically added to the series, constantly adding new themed features like pets or witchcraft; also, the newest games have enormously deepened social features, and the player can not only select different interactions in order to create relationships of different nature, but also give his customized characters his own peculiarities, which will also determine which kind of relationships he prefers – for example, a “solitary” character will prefer keeping social interactions far away from him. *The Sims* games are also available to play on home consoles, although it was born

⁴⁴ A *run* is a complete iteration of a game. Most titles nowadays offer players the chance to save different iterations in separated instances – “save files” – but some like *Undertale* only allow one file to be saved at a time, and the player must delete the current file to begin another run.

⁴⁵ These are also known as NPCs (short for “non-playable characters”): the player cannot use but only interact with them – e.g. talking or fighting them.

⁴⁶ Chris KOHLER, “Q&A: Pac-Man creator reflects on 30 years of dot-eating”, in *Wired*.

as a PC game.

Another genre derived from casual games is the so-called *social network games*. These are of course games – developed by third parties⁴⁷ – that can be played on social networks, although some akin titles are also available as mobile-only versions. An example of this is *FarmVille* (2009) by Zynga,⁴⁸ one of the most popular Facebook social games ever: the player runs a farm, cultivating crops and breeding the cattle, which earns him money to be used on new crops/cattle or on decorations and improvements for the farm; each task requires a set amount of real-life time to be fulfilled: the user can therefore close the game and come back to check when the established time has elapsed or else speed up the process by using real currency and instantly get their crops to fully grow up and be ready to harvest. In 2012, developer Supercell released *HayDay*, a mobile counterpart for *FarmVille*, virtually identical to the latter in terms of gameplay but only playable on mobile devices (thus making it a “version” derived from a social network game, although not properly a social network game); that same year Zynga released a sequel for *FarmVille* (*FarmVille 2*) on Facebook, and two years later ported the game on mobile stores. Although it has at times received critics from researchers and the likes,⁴⁹ *FarmVille* was utterly popular among Facebook users when it was first out – at the same time, the social network itself had started earning the fame it has today.

While most gamers still buy a home console or a computer, mobile phones have confirmed their great importance both to the gaming industry and everyone’s life, in the latter sphere often leading to abuse and seldom to serious issues;⁵⁰ in a global market where constant innovation is compelling to keep one’s share of the market, developers try and devise new ways to see their games hit the portable

⁴⁷ A definition has been provided in 1.4 (note 24).

⁴⁸ General information for the game as in ACCORDI RICKARDS, *Il videogioco*, pp. 98-100.

⁴⁹ Simon PARKIN, “Catching up with Jonathan Blow”, in *Gamasutra*.

⁵⁰ Especially in the case of dating apps where some users may be enticed by ill-intentioned individuals; also, in the year 2016 Niantic released their previously announced and hyped AR game *Pokémon Go*, where the players could find GameFreak’s infamous creatures and catch them simply by moving in the real world: this peculiar mechanic and the abuse/misuse of the application led to an increasing number of incidents everywhere in the world, involving robberies, trespass and even death. As an example, read Telegraph UK: <http://www.telegraph.co.uk/news/2016/08/29/robberies-thefts-assaults-and-driving-offences-among-hundreds-of/> (previous note)

small screen of smartphones. The competition for apps specifically released for mobile phones began with Apple opening their *App Store* in July 2008 for their iPhone 3G smartphone and iPod Touch devices; it initially featured around 500 apps, grown up to 2.2 million by January 2017 with 130 billion downloads.⁵¹ Apple's main rival to date has always been Google with their *Google Play Store*, first launched just some months after App Store (in October 2008) as *Android Market*.⁵² The word *app* that has just been used includes a wide range of games but also utilities (like flashlights or daily planners), news services (the biggest newspapers usually have their own app with real time-updated news) and any kind of utility one could conceive. Both App Store and Play Store can also be used to download music, movies and books, which are immediately stored on the device making use of certain apps that are pre-installed on the mobile (just to name a couple, Google Play Music on Android and iTunes Store on iOS).

Mobiles also have basic gaming features. Android's version 7.0, for example, introduced a new application, the Game Launcher, basically working as an auto-updating folder that gathers the downloaded games in one place and offers useful tools (e.g. gameplay recording – a functionality previously available only with third-party apps – and dedicated battery save mode), as well as information like hours played, data usage and suggestions for new games based on the ones downloaded. This is no new feature, on the other side, for Apple's creatures, that had a similar application already released in September 2010, the Game Center. Games downloaded from App Store (and also Play Store) don't usually have a multiplayer feature – except MMORPGs that are conceived with that purpose; both parties devised similar ways to make up for what can be considered the lack of a “social” side to gaming: while Apple released said Game Center, Google's response was to develop another app, the *Google Play Games*, working similarly to Game Center in providing the player with a friend system and awards for reaching certain objectives in-game – this is why Game Launcher may be defined as being no more than a special folder with side features.

⁵¹ Sarah PEREZ, “Apple’s App Store hits 2M apps, 130B downloads, \$50B paid to developers”, in *TechCrunch*.

⁵² “Android” is a smartphone OS developed by Google itself.

With more new functionalities added to mobile devices and considering the growing demand for content from players, mobile app stores also caught the attention of console/PC game developers. For example, Bandai Namco Entertainment, renowned in the games industry for having based games on the Japanese anime series *One Piece*, *Naruto* and *Dragon Ball*, showed in their 2016 fiscal year report that their revenue from network content was worth ¥103.9 billion, against ¥95.7 billion from the home console software.⁵³ Besides the evident reason of being available for smartphones, which buyers keep constantly with them and use to play in leisure time, it is not to be forgotten that the games mentioned are based on characters from famous *anime* and *manga* series – series that, far from being a Japanese exclusive, have by now broken the country's borders and have a worldwide fanbase.⁵⁴ The two most important presences to the mobile gaming market are Bandai itself, for having released the abovementioned games and a lot more like them, and Square Enix, that in the last fifteen years has been providing their followers with their favorite sagas in portable version – including new games and portings as well.⁵⁵ Overall, digital content has indeed become a cornerstone for the digital entertainment, allowing developers to release porting of old games for new generation consoles and players to buy games without having to use a physical disc to use them (some consoles, moreover, allow game data to be deleted to free space on the hardware while keeping the title in the library, ready to be re-installed and played).

⁵³ Bandai Namco Entertainment Annual Report 106, p. 5.

⁵⁴ For example, read “*One Piece ruiken sanokusatsu wo toppa. Kokunai shijo saiko wo kiroku*” (「ONE PIECE」累計3億冊を突破 国内史上最高を記録), in *Huffington Post JP*.

⁵⁵ For more on this, see 3.2.

CHAPTER 2: *Garapagosu-ka*

So far, we've discussed about video games and their origins: when they were born, when and how they evolved, how the last generation differs from its predecessors and how it deeply changed the conception of "gaming". Although most might neglect considering it from a financial standpoint, the sector is of relevant importance to the market. The reader should not forget, by the way, that being part of a greater marketing panorama this sector too directly responds to the action of several factors – here, consumers' demand and feedback should be considered crucial for the success or failure of a business. If the demand isn't high enough in the target market, or if otherwise there was no demand at all, it is likely that a product (be it a videogame or any other goods) won't sell enough to survive and has to be withdrawn, and its production stopped; likewise, if buyers don't like it there's a high chance that their opinion on a particular product will also influence subsequent productions from the same company. There is however still a chance that although importers decided to withdraw the product, its sales keep going well in its original country, ultimately leading to the source monopolizing the product. This is just the case in Japan, a market populated by unique products that one is unlikely to find elsewhere. As we read in the *Japan Times* (2005), for example: "More recently we hear of 'Galapagos Japan', referring to a tropical Pacific archipelago so remote that its wildlife evolved differently and uniquely — strangely, if you like — like Japan's culture, economy and people".⁵⁶

Studies have given this phenomenon a name: *Galapagos syndrome*. The aim of this chapter is to introduce the phenomenon, and to explain its influence on the Japanese market, especially on the videogame sector, one that Japan has always boasted with deep pride. To do so, opinions have been gathered through news pieces found on the Internet, where most gaming debates are opened and discussed. Some parts of the chapter will also be spent for a brief insight into the most famous Japanese software houses.

⁵⁶ Michael HOFFMAN, "Overseas observers spot something strange", in *Japan Times*.

2.1 Definition and examples

Generally speaking, the expression *Galapagos syndrome*, or ガラパゴス化 (*garapagosu ka*), was coined in Japan to indicate a piece of technology developed inside the country that, although being “open source” and thus also available for foreign engineers with specific competences to access and improve, is manufactured in a fashion that actually precludes it from being used in foreign countries, ultimately isolating it in the source country (Japan). It is unclear when the term originated, but it is believed to have become official in October 2006 after a meeting of the Japanese Information and Communication Technology (ICT) working group,⁵⁷ where it seems to have been first mentioned, and started being recognized at least to some extent by those related to the mobile phone industry. It is no coincidence that among the most famous cases one – or maybe the most important one – concerns mobile phones manufactured in Japan. The ICT report states as follows:

If our country on the one hand offers high quality goods and technologies produced inside its borders, what it lacks on the other is affinity with the global market, in other words displaying the flourishing of brands peculiar to a closed system – a situation alike that of the Galapagos archipelago and its species.⁵⁸

Far from being limited to those in close contact with market and technology, the expression has also come to the ears of commentators. For example, it also appears in a piece by Pulvers in *The Japan Times* (2011): “[...] The same question has occurred to me recently upon hearing, with greater and greater frequency, the ‘explanation’ of Japanese culture

⁵⁷ A. CAPERNA, in his “Introduction to Information and Communication Technology” uses the following definition: “While on the one hand it is easy to identify some elements that are essential to ICT, due to a matter of ‘fluidity’ (being a sector without a universal definition) it is not so easy to provide a unique definition of the same”. Moreover: “[...] what has come to greater attention in recent years is ICT as a means of producing information, new knowledge and contents”. (09/30/2008)

⁵⁸ “国内では洗練された商品質の技術・製品を提供している反面、グローバル市場との親和性に乏しく、いわば鎖国系内で特有の種が繁栄している「ガラパゴス諸島」のような様相を呈していること”

ICT Kokusai Kyosoryoku kondankai saishu torimatome (国際競争力懇談会最終とりまとめ). 平成19年4月23日, p. 8. Translated by the author.

being *garapagosuka* ('galapagosized').⁵⁹ In his piece, he suggests that this situation is the result of *shimaguni konjo*, "island mentality" – a mental rather than physical isolation that ultimately created in Japan a closed system populated by peculiar species (which in this case are goods) similar to the Galapagos islands in the Pacific ocean. One of these "species", as he reports, are Japanese mobile phones. In the '80s, while the global standard for mobile phones relied on a 1G (first generation) analog signal to forward calls, Japan had already managed to adapt their phones to a 2G (second generation) digital signal, thus their advanced devices could not work outside their borders⁶⁰ and couldn't ultimately be exported, remaining peculiar to the country. Furthermore, NTT Docomo, Japan's most known phone company, was the first in the world to provide an IP internet connection for mobile phones, plus a multimedia service under the name of i-mode; the latter was a great success in Japan, being used from its launch in 1999 until as later as very recent years, with a usage peak in 2008. As of 2016, the launch of 3G and 4G services have greatly eclipsed i-mode, and the service has become outdated and steadily unused.⁶¹

i-mode introduced more than a mere connection improvement: it also provided customers with services as e-mailing, sport results, games, financial services and ticket booking, which was a huge innovation in 1999 when foreign companies were barely selling home internet connection packages. Consequently, Japanese smartphone makers also started developing new handsets that could provide better support to i-mode services, greatly helping the rise of their market section. I-mode itself also provided an enormous source of incomes for the mobile market: in fact, each of its services required users to pay a monthly fee of around ¥200 or ¥300, and it is not so rare for a single customer to subscribe to more than one service at a time. According to data gathered from *The Japan Times* (2011),⁶² the Japanese cell map and navigation system Navitime – charging a monthly fee of

⁵⁹ Roger PULVERS, "Is 'Galapagos-thinking' Japan back at its evolutionary dead end?", in *The Japan Times*.

⁶⁰ Note that in similar situations each country is left the choice about which standards to adopt. Such standards, that are (follows from note) not officially recognized by the law, are known as "voluntary standards", or *de facto* standards (*de facto* is a Latin expression meaning "in fact"). As opposed to this, standards that are legally recognized are called *de jure* standards (from Latin *de iure*, "in law").

⁶¹ As a reference, read Bill RAY, "Culture Matters: Why i-mode Failed", in *The Register*.

⁶² AKIMOTO Akky, "In the battle of smartphones is iMode dead?", in *The Japan Times*.

¥210~¥315 per user – boasted over 4 million subscribers, earning around ¥0.84 billion per month. On the other hand, the well-known mobile game *Angry Birds*, available everywhere in the world for a \$0.99 one-time fee, has earned from its 12 million global downloads around ¥1 billion since its release, just above what Japanese Navitime – a single one among the several services available for i-mode users – can earn per month.⁶³

A success so great eventually prevented the rise of smartphones in Japan for a long time. One could then be left to wonder why have Western companies never tried importing Japanese phones or implementing services like i-mode. In fact, some attempts were made: to name some, United Kingdom-based O2 and the Italian Wind.⁶⁴ A total of 17 countries imported i-mode inside their boundaries, and within the first year from launch the choice seemed to have been a success there too; anyway, the companies' reluctance to also develop new i-mode-friendly devices, a need that arose later in time, ultimately led to decline and total abandonment for i-mode itself. Besides, foreign companies also started manufacturing proprietary handsets compatible with internet services. Payments represented another major obstacle to the service: Japanese i-mode users could pay their subscriptions directly charging the fee to their monthly mobile phone bill, while Western companies still today require a credit/debit card to be paired to the account. The importation of i-mode in the West, thus, was not merely a matter of technological advance, but of a rather substantial renewal of the way users (and companies) conceived communications. It is worth of a note that Western phones met the same fate when they were imported in Japan: Japanese customers were too used to a totally different kind of phone, attached to their clamshell designs and properties like solar-powered batteries, and therefore found difficult getting used to phones like Apple or Samsung creations, that can also connect to computers. For them, it is far more common to “rely to their phones, not a PC, for Internet access”.⁶⁵ A possible reason for this has been addressed by Ashcraft in his piece for *Kotaku* (2013),

⁶³ AKIMOTO, ibid.

⁶⁴ For example, Italian Wind started a partnership with NTT Docomo for iMode on 2003; it was interrupted on 2009. Read “NTT DoCoMo e Wind firmano alleanza strategica per il mercato italiano” (06/25/2003)

⁶⁵ TABUCHI Hiroko (2009), “Why Japan's cellphones haven't gone global”, in *The New York Times*.

an accredited website for gaming, reporting a mail on the subject that had been sent to the site: "I don't play computer games at all. I use my computer for work, so I don't want to cause it unnecessary stress by installing a bunch of software".⁶⁶

In an article for the *Huffington Post* (n.d.),⁶⁷ Stewart explains how this phenomenon has come to also directly affect the people in Japan. While describing a conversation he held with the Japanese sociologist Akiko Ikeda-Wei about how young Japanese people should seek for opportunities abroad, he reports her opinion that "Young people especially have become more inward-looking than ever, totally not interested in going abroad to work or to study".⁶⁸ Stewart then proceeds with practical examples to explain his point: one is about the business newspaper *Nikkei*, that began discouraging its online readers from linking to its website (as reported in Tabuchi, 2010⁶⁹), which could be seen as a move to put it to some distance from the Internet (in the author's sarcastic observation, "We are doing just fine with our print edition, so go away, Internet"⁷⁰); the other, somewhat old-dated, example concerns Toyota Motor's attitude towards visiting Western managers dispatched to Japan to learn new techniques: while Japanese managers once gladly passed those techniques on to the Westerners, they steadily shifted their attitude and got to the point where they just showed them around without actually teaching anything to their colleagues. To quote the original article Stewart is reporting:

I have had a close acquaintance with Toyota for three decades. In the 1980s, as Western corporations in diverse sectors faced the onslaught of what was seen as the daunting Japanese challenge, I accompanied Western managers to Japan to learn about the country and its management and production techniques. This invariably included visits to Toyota factories. It was well worth it — and almost certainly still is — as the Toyota Production System deserves admiration and emulation.

⁶⁶ Brian ASHCRAFT, "Why PC Gaming Is Still Niche In Japan", in *Kotaku*.

⁶⁷ Devin STEWART, "Slowing Japan's Galapagos Syndrome", in *Huffington Post*.

⁶⁸ STEWART, *ibid.*

⁶⁹ TABUCHI, Hiroko, "Nikkei Restricts Links to its New Website", in *The New York Times*.

⁷⁰ STEWART, *ibid.*

In the course of the decade, however, I noticed a subtle change. By the latter part of the decade, Western management delegations continued to be politely received, but more often than not professional guides were appointed to show them around, and there was no dialogue with the Toyota managers, who previously had been keen to teach and learn. On the contrary, there was an undisguised sense of condescension toward the visiting foreign executives.⁷¹

William H. Saito suggests that one of the possible causes behind the Japanese Galapagos effect may be found in how Japanese people are taught to cope with problems. In an article for *Diamond online* (2015),⁷² he explains that Japanese people in school are used to tests that require answering a question with a single answer – this can be exemplified by a simple “ $7+3=_\square$ ” expression; on the other hand, Western (especially US) tests often offer multiple answers to a question – like in the equation “ $_x=24$ ”. As Saito himself explains in his article, the meaning of this is that people who studied in the West can reason on the problem at hand and in the end even find multiple solutions to it, while Japanese people (who are usually asked a single answer) will often face a problem unable to give more than a single (“default”) answer to it:

The difference in the second method is that students, more than being made to memorize the “what,” are encouraged to think “why?” and, thus, exercise their creativity and imagination. These are more important for thinking [than simply finding the one right answer]. Japanese are adept at exercising their memories and learning by rote, but now we’ve come to an era in which it’s simple to find information using Google. It’s coming to the point where we can say there’s no longer any value in knowing information per se. Rather, what

⁷¹ Jean-Pierre LEHMANN, “Corporate Japan is a little lost in communication”, in *Taipei Times*.

⁷² SAITO HIROYUKI William, “Japan’s Galapagos Syndrome”, in *Diamond online*. Quoted from the English translation found at: <https://journal.accj.or.jp/japans-galapagos-syndrome-rooted-in-its-education-system/>. The original Japanese article can be found at <http://diamond.jp/articles/-/74055>.

matters is how we can process the information we acquire and link it to knowledge or ideas.⁷³

Saito's article somewhat recalls the one by Stewart we previously mentioned in that he spends some lines to address another peculiar Japanese problem: he recognizes "closed-type individuals" in the Japanese society, which according to him are the exact opposite to the "open-type human resources" the world needs for technological progress, an individual capable of building "broad networks outside their company and/or family" (in a way also recalling of Pulvers, 2011). Stewart reports about a "generation of Japanese in their 30s and 40s who have been distinguished by market experts for their adeptness at online shopping and generally avoiding the rest of society", come to be known as *hikikomori* (or "shut-ins"), which is according to him a reflection of a more generally-speaking Japanese behavior to virtually close the country in a shell, almost two centuries after the *sakoku* has only become a historical period.⁷⁴

Japan's seeming inwardness may lead foreign observers to think of it as a somewhat "strange" country, as we find in Hoffman's article "Overseas observers spot something strange".⁷⁵ In his account, he casts an aura of "strangeness" over the country and its general behavior, which in this instance is not to be considered as totally positive: he supports his ideas with a survey taken on foreign observers by the *Shūkan Gendai* ("Modern Weekly"), a general interest Japanese magazine, that posed various questions to his interviewees in order to collect their thoughts on Japanese government, as well as other subjects. Overall the interviewees didn't seem to agree with Prime Minister Abe's measures, and even demonstrate a tendency to consider China more important than Japan. This may surprise if one thinks that most other newspapers and TV shows generally use a praising tone: "[...] the number of programs featuring foreigners singing Japan's praises. How soothing, how reassuring,

⁷³ SAITO, Ibid.

⁷⁴ It is important to note that the author is simply reporting a third party's (journalistic, not academic) opinion on the subject. *Hikikomori* are still a complicated – and thus not well comprehended – portion of Japanese society: stating that their conditions are linked to a more country-wise issue such as *sakoku* would perhaps be an over-assertion.

⁷⁵ HOFFMAN, Ibid.

to Japanese alternately plagued and puffed up by a sense of being not quite in step with the rest of the world”.⁷⁶

Abenomics overall seems to be affecting the trend also according to William Pesek (2007), who in an article for the *Japan Times*⁷⁷ talks about the global fate of an instant messaging application of great success in Japan (Line). About Abe’s policy, he states that the Minister has encouraged the employment of foreign directors, but eventually the so-called “weak-yen policy” brought to a point where foreign CEOs don’t want to leave Japan anymore: “For every globally minded CEO — like Fast Retailing’s Tadashi Yanai, Toyota’s Akio Toyoda and SoftBank’s Masayoshi Son — there are hundreds sitting back complacently and letting the currency do their jobs”.⁷⁸ About Line, he reports it was born in 2011 as a response to the communication issues caused by the devastating earthquake that afflicted the country and eventually came to be known globally; the developer’s initial plan to bring it to those countries that didn’t have a “dominating messaging service” – especially south-east Asian ones – was blocked by killer applications⁷⁹ the likes of Facebook and Whatsapp Messenger, which of course had interest in those areas too. The same two applications (together with many others) are the reason that Line’s existence is overall ignored in the West. Its design can also be considered “really Japanese”, meaning that alongside the classical emojis (by now also used by other messaging apps) are unique stickers modeled on the most popular Japanese manga and anime series, which makes the app only known to a wee minority of the Western population – namely, those people who are interested in Japanese-style comics and cartoons. As it is clear, this is not very different than the situation we have described until now: in this case, a potentially good idea for a product comes into practice in Japan, but the exportation to other countries is hindered by particular mechanics of the same and also, here, by the action of foreign factors (namely, two applications that already made themselves a huge name and have become the standard go-tos in other countries). The only difference

⁷⁶ HOFFMAN, Ibid.

⁷⁷ William PESEK, “Line’s IPO revives the ‘Galapagos Syndrome’, in *Japan Times*.

⁷⁸ PESEK, Ibid.

⁷⁹ A *killer application* is a best-selling application.

being that there may still be hope for Line to become one of the greatest ones in the West too.

2.2 Japan and video games: a brief account

The Galapagos syndrome is therefore an issue worth addressing in contemporary Japanese society. As one could deduce from the news items brought into exam, many popular representations believe it to derive from an island mentality that has always been characteristic of Japanese people; it seems to have affected not only people's psychology but also Japanese market, thus goods are produced with the needs of Japanese – not global – customers in mind. In his article,⁸⁰ Hoffman (2005) suggests that Japan has stuck to its successes in the 20th century and never moved on, and that it needs a new revolution like the Meiji Restoration started in mid-19th century. 21st century is going towards its third decade, and the question one should find an answer to is: what has Japan managed to achieve concerning the Galapagos syndrome? At first glance, with the country steadily gaining a worldwide spotlight, the phenomenon is still as much of a problem as it was decades ago. So far, the thesis has focused on the general influence of the Galapagos effect on the Japanese market; its main purpose, though, is to examine a specific portion of it – digital entertainment – and determine whether and how much it has been affected by the phenomenon. Before observing trends in the market – which is the main focus of this thesis – it would probably benefit the reader to introduce a brief insight on *Japanese videogame history*.

As far as videogames are concerned, Japan has never lost pace. Although the first ones were developed in the 1950s' US, four main Japanese companies soon focused their interest on the newly born market, namely: Sega, Taito, Namco and Nintendo.⁸¹ As soon as 1951, the slot machines previously used to provide leisure to soldiers were banned from the US territory, which forced the so-called Standard Games company to move to Japan and change name to Service Games; nine years later the company was closed, and its business taken over by two new enterprises. Their merger with Rosen Enterprises, who had been importing arcade games to Japan, gave birth to **Sega**. The company

⁸⁰ HOFFMAN, Ibid.

⁸¹ Nintendo will be discussed separately.

took great benefit from the Golden age,⁸² and some of its games were even ported by American Coleco to be used on their first home consoles. After the American video game crash in 1983, the situation in Japan was virtually opposite to that, and companies that would later be considered prominent started making a name in the industry. Sega found fierce competition from Nintendo; as a counter measure they released their first home console SG-1000 on the same day as their competitor's Famicom and lost the match notwithstanding their technical superiority. From then on, Sega tried hard to stand up to its rivals, but for several reasons never managed to surpass them – although their consoles did gather some fame outside Japan. From 2001, Sega shifted their focus on third-party software development for other consoles. Meanwhile **Taito**, who started their business as vending machines distributor and then vodka distiller and seller, began producing cabinets in the 1960s also dispatching to America, where they were distributed by Midway. As already mentioned in 1.2, Taito is the company behind *Space Invaders*, an icon in the global video game scenario. In the end, despite the many famous titles they developed, they became a subsidiary of Square Enix.

Formerly responsible of running children rides in Yokohama in 1955, Nakamura Manufacturing Company, Ltd. (中村製作所, *Nakamura Seisakusho*)⁸³ produced their first mechanic driving simulator called *Racer* in 1970; their name was frequently abbreviated in **Namco** (**Nakamura Manufacturing Company**), which was to become their official brand name in 1971. Hide Nakajima, at that time general manager for the company, decided to help Atari's subsidiary in Japan (which was having great difficulties in the country) and obtained the license to distribute their games on Namco cabinets: the great debts he inherited from Atari Japan were extinguished within two years. Thanks to this, Namco America later opened near Atari's once-headquarters in the US (in California); Namco did not release games in the US at that time: the inauguration of a subsidiary in the States was intended as a means to allow American developers like Midway to distribute Namco's games. In Japan, however, they started developing proprietary software the likes of *Pac-Man* (1980), which became

⁸² See chapter 1.2.

⁸³ Namco was originally named after Masaya Nakamura, the man who founded the company in 1955.

an icon in their history. The end of their collaboration with Nintendo⁸⁴ marked their first attempt at developing a home console, the *Namco Super System* (or *PC Engine 2*), in cooperation with NEC Home Electronics, but what really engraved their name in history for a younger generation of players is the fighting video game series *Tekken* that was released in the mid-90s. The merger with Bandai in 2005 was the final step to the company we now know, **Bandai Namco Entertainment**, and their software still has great success in the video game panorama.

2.3 Videogames' Galapagos-ization

Let's consider the top 10 sales of video game software in Japan for the year 2016:

1. ***Pokémon Sun/Moon***
2. ***Yokai Watch 3 Sushi/Tempura***
3. ***Final Fantasy XV***
4. ***Super Mario Maker for Nintendo 3DS***
5. ***Dragon Quest Monster Joker 3***
6. ***Yokai Watch Sangokushi***
7. ***Yokai Watch 3 Sukiyaki***
8. ***Kirby: Planet Robobot***
9. ***Minecraft: PlayStation Vita Edition***
10. ***Persona 5***

The bold used is to indicate titles for Nintendo handhelds; also note that of the three games that were not bolded only one is a Western-developed title, *Minecraft: PSV Edition*. These, in turn, are the 10 best sold games in Europe:

⁸⁴ Namco was one of the first licensees who were allowed production of third-party software for Nintendo consoles. Eventually, Nintendo's monopolistic behavior led to Namco's decision to break the collaboration, and to new ties with Sega who obtained most of the company's best-sellers.

1. *FIFA 2017 (PS4)*
2. ***Pokémon Sun/Moon***
3. *Uncharted 4: A Thief's End*
4. *Battlefield 1*
5. *Call of Duty: Infinite Warfare*
6. *GTA V*
7. *FIFA 2017(XBox One)*
8. *Tom Clancy's The Division*
9. *Far Cry Primal*
10. *Mafia III*

The US top 10 sold list also features several of the games just mentioned:

1. *Pokémon Sun/Moon*
2. *Uncharted 4*
3. *Battlefield 1 (XBox One)*
4. *Call of Duty: Infinite Warfare (XBox One)*
5. *Call of Duty: Infinite Warfare (PS4)*
6. *Call of Duty: Black Ops 3*
7. *Madden NFL 2017 (PS4)*
8. *Battlefield 1 (PS4)*
9. *Madden NFL 2017 (XBox One)*
10. *Gears of War 4*⁸⁵

What is evident from a comparison of the charts is an important difference between the

⁸⁵ Data for the charts from www.vgchartz.com/yearly/2016/.

Europe/US and Japanese video game markets: while the Japanese chart is completely occupied by Japanese-developed games (with a single exception), a virtually opposite trend reveals itself from the Europe and US charts, that are completely occupied by titles developed by Western companies instead, with a single exception in the only US market. A deeper look at the charts – position from 10th to 100th – reveals that there is indeed a relevant presence of Japanese games in the Western market, but they do appear scattered throughout the list and start to gather together after the first half (pos. 50th-100th). Where does this difference originate from?

There are several technical and market issues at work preventing exportation of a product – in other words preventing its Galapagos-ization. The former refer to products that cannot be exported because they wouldn't work outside the borders – this was the case of Japanese smartphones covered in 2.1; the latter include all those issues purely related to the market that would prevent the product from having success abroad. Most relevantly, a company has to keep into account their reception on foreign markets: while globalization has and still is providing some homogeneity, each individual market also maintains its own degree of uniqueness from others, and the Japanese seldom takes this definition to a sort of excess. Despite some similarities between cultures throughout the world, Japan's culture has always been unique in a sense: this very uniqueness is the main reason why Japanese market never managed to appeal to all buyers. A web search should suffice to run into gadgets as odd as a “privacy scarf” or a “lap-pillow”, or food and beverages like strawberry milk and natto. Some of these items can be bought on online stores, but they're a rare sight in physical stores outside Japan.

This problem also reflects on certain video games that in the West would hardly be sold at all. The series *Shin Megami Tensei*, for example, is presently worldwide popular for its spinoff series *Persona*, but it debuted in 1987 in Japan as the adaptation of a sci-fi novel by Aya Nishitani, *Digital Devil Story: Megami Tensei (Dejitaru debiru stori: Megami Tensei デジタル・デビル物語女神転生*, literally “Digital devil story: Reincarnation of the Goddess”), that also gave its name to the first

installment in the series; it was developed by Atlus and published by Namco for Famicom. Together with its sequel *Digital Devil Story: Megami Tensei II* it became a bedrock for all the following installments, each one with their own original story – unrelated to the others – and sharing some common elements like plots influenced by player choices and the ability to fight recruiting creatures called Persona. The next game debuted on Super Famicom as *Shin Megami Tensei* (真・女神転生, literally “The True Reincarnation of the Goddess”, also a play with the word 新, “new”, read *shin*) in 1992, and since then all installments brought to the West have used the moniker *Shin Megami Tensei*.

The first installment to be localized for Western audiences was the spinoff *Jack Bros* released in 1995 both in Japan and North America; since then, old releases have been slowly localized and adapted to the new audiences, and the first *Persona* spinoff for was released for PlayStation in Japan and North America the following year (1996): *Megami Ibunroku: Persona* (女神異聞録ペルソナ, literally “Goddess’ Odyssey: Persona” – North America: *Revelations: Persona*), although being a spinoff of the *Shin Megami Tensei* series is the longest and most known among all, with a total of six games the latest of which – *Persona 5* – published in 2016. The game starts with the protagonist (canonically called Naoya Todou, whose name can be decided by the player) debating with two classmates (Mark and Hidehiko) the existence of spirits. The debate follows with Mark challenging a skeptic Naoya to perform a ritual called “Persona”, which eventually ends up conjuring the ghost of a white-robed girl who asks for help. The whole group loses consciousness, and as they recover senses they find out they’ve been teleported in front of an entity called Philemon; the entity warns them of a great danger threatening the world and bestows upon the group supernatural powers, able to awaken within themselves forces of good and evil in the form of creatures called Personas. The kids at first dismiss the matter thinking of it as a dream, but after the visit to a hospitalized classmate they can’t help but believe what they saw, as the city they live in starts to change and demons crawl its streets.

Despite the fame gathered inside the borders, then, localization⁸⁶ outside Japan was a tough task, mainly due to particular themes – namely, demons and the likes that have been mentioned in the synopsis above – that could have been seen as taboo in other countries. Cultural references to Japan also played a decisive part in localizing the game: *Revelations: Persona* underwent severe changes – for example, characters' appearance was changed to be more Western-like – to the point that an entire alternate quest was removed from the main storyline due to its complexity; also, dialogues were changed where they used references to Japanese culture that wouldn't be understood by a Western audience, and characters' names were Americanized too. Subsequently, a PSP port of the game was developed, where most of those changes were taken back to normal and the alternate quest was restored; since then, translators at Atlus North America worked hard to keep localized *Persona* games as true to the Japanese original as possible. Sometimes, by the way, Western references are the obstacle to overcome: for example, *Persona 2: Innocent Sin* was never localized⁸⁷ (not even its PSP porting), initially due to *Revelation: Persona* selling less than expected but mainly because the game featured a “certain character” (Adolf Hitler) that is still now a taboo in the West. As time passed by it became too old to hope it could catch the attention of the players, therefore localization for the series stopped. This is until *Jack Bros* was developed: its American release was also a way for Atlus NA to bring a new brand in the region that could stand up to the fame *Final Fantasy* and other Japanese games had already gathered. Even then, localization faced hard times, since most of the in-game content had to be adapted in order to suit a different audience than the one it had been originally thought for; the first game in the main series to be localized was *Shin Megami Tensei: Nocturne* (2004), which marked the developer's decision to stop using the title *Revelations* and use the *Shin Megami Tensei* moniker instead for future releases, including those that didn't originally bear it.⁸⁸ After the *Strange Journey* spinoff (2009) was successfully created with future localization in mind,

⁸⁶ As the name suggests, *localization* is the translation of a game into different languages; the process also involves adapting certain terms and expressions to fit the destination market.

⁸⁷ Published in Japan in 1999. The PSP version for NA and Europe was released in 2011.

⁸⁸ This was a way to help the game being marketed by identifying all the installments under the same franchise.

Atlus decided to promote the following *Shin Megami Tensei IV* – a main installment – to North America, Europe and Asia for the first time.

Localization, though, is but one among a vast group of issues at work in influencing a videogame's diffusion worldwide. In an article for *Eurogamer*,⁸⁹ an important website of reference for videogames, Robinson (2012) gathers opinions from several important personalities in the videogame industry. For example, he reports John Greiner's⁹⁰ viewpoint on the Japanese gaming market:

“Japan's always made games for its own market, but traditionally we've been infatuated with that style of development and their dedication to detail and the attention to that that made the games somewhat special. The balance and charm of Japanese games is something unique, but it was never meant to be global.”⁹¹

This seems to suggest that what complicated Japan videogames' rise in Europe and the US is a particular – although maybe involuntary – strategy from Japanese game developers, that have continuously been thinking concepts for new titles with a Japanese audience in mind. According to Gavin Moore,⁹² anyway, the problem stands somewhere else:

“[Japan] saw these big-selling western titles and they tried to make these big-selling western titles, and they didn't have the staff and were slow to get used to the technology. They didn't use any middleware,⁹³ and for those titles you have to. They spent a lot of money

⁸⁹ Martin ROBINSON, “The truth about Japan: a postcard from the Japanese gaming industry”.

⁹⁰ John Greiner, CEO for developer Monkey Paw Games in 2012.

⁹¹ ROBINSON, *ibid.*

⁹² A producer for Sony Japan.

⁹³ “Essentially functioning as hidden translation layer, middleware enables communication and data management for distributed applications. It's sometimes called plumbing, as it connects two applications together so data and databases can be easily passed between the ‘pipe’. Using middleware allows users to perform such requests as submitting forms on a web browser, or allowing the web server to return dynamic web pages based on a user's profile.” (From Microsoft Azure website).

on it, and it bit them - and then they retreated and thought that the west didn't like their games anymore.”⁹⁴

Perhaps, as Moore suggests, having noticed that their games didn't seem to appeal to a Western audience anymore, the real matter is that Japanese developers tried to emulate Western style in some way, but in the end failed to meet the players' expectations in those countries. As evidenced in Chapter 1, *opinions* are a crucial factor for a developer, and maybe trying radically different approaches isn't necessarily the best option. As Alex Jones⁹⁵ purports in the same issue, Japanese and Western development style is profoundly different: while “Japanese developers tend to work from the core out” (in other words, creating a character and then building a suitable world around him), “Western developers focus from the out in” (thus first creating a world, and then a character that “feels right” in that environment); also, Jones points out that another difference among the two development environments is the methodology used to perfect a game, talking about – with Jones's terminology – a “sequential” perfection for Japanese standards and an “incremental” perfection for Western ones:

“On a production level, Japan's model is that they work on something until it's perfect, [...] Then they go and work on the next thing - and it tends to be very sequential, so at any point in time very early they have something that's perfect. Western development takes a more incremental approach across the entire game, so something isn't absolutely perfect until very late by Japanese standards.”⁹⁶

Note, however, that what has been quoted so far concerning Japanese development methods doesn't necessarily have to be interpreted as a bad procedure: as Moore suggests,⁹⁷ it is just this very

⁹⁴ ROBINSON, *ibid.*

⁹⁵ Producer of DMC, a famous videogame developed by Ninja Theory and published by the Japanese Capcom. Jones also acts as a conduit between the two companies.

⁹⁶ A. Jones as quoted in ROBINSON, *ibid.*

⁹⁷ “If you talk to gamers in the west they love Japanese games, and they don't want Japanese gamers to make western style games [...] That's what they were trying to do, but now they're coming round to the idea of doing what they want to

difference that makes each developer unique and that has to be preserved to create games that in the end will be able to leave deep impressions on a player – therefore creating a good opinion about it which will inevitably spread and earn good fame to the developer.

“You take something like *Demon’s Souls* - you think that could have been made in the west, but no one would have the balls to make that in the west. No one would make it that difficult - it's only that Japanese mentality, that old-school sense of clearing the game. And everyone in the west thought that game was awesome.”⁹⁸

Consider this: back to the times when arcades dominated the market and home consoles were not as popular as they are now (or didn't exist at all), there was no choice at all as per what games to play on arcades, and one could do nothing but play what was offered. Progress changed everything: tons of new games were created, each with its peculiar mechanics and plot, and it's only natural that in the end they came to fall into different categories. Fighting games, first person shooting games (or FPS for short), role playing games (RPG, or MMORPG when they require an internet connection and the simultaneous participation of hundreds of players), puzzle games... these are only some of the strikingly numerous genres on the market, and each player eventually has their preferred one. Moreover, some are also influenced by the Japanese cartoons and comics business – or, to use the native words, *anime* and *manga*, as they are also currently known everywhere else in the world; the plot of a *manga* very often involves fictional characters, whose adventures set in fantastical worlds are framed by exotic creatures and astonishing magic or inhuman powers, and it is not rare to see these characteristics reflect in Japanese games too. Or rather, a surprising majority of Japan-developed games make of magic and fantasy their strength, as it stands in plain sight in games like *Final Fantasy*, *Kingdom Hearts*, *Persona* or *Dragon Quest* – all of them by Square Enix, one of the

do.” (G. Moore, as quoted in Robinson, 2012. Previous note.)

⁹⁸ Gavin Moore, as quoted in Robinson, 2012. As the passage suggests, *Demon’s Souls* is a game developed by Sony Computer Entertainment Japan and From Software, famous on a global scale for its insanely high difficulty level.

leading video game software houses in the world.

On the other hand, while it is true that the above-mentioned games are also highly appraised among foreign audiences, their themes are not as widely acclaimed as they are in their home country. Web researches – which are to be verified through surveys introduced in Chapter 3 – reveal that Western players do instead prefer first person shooting games, usually set in more realistic situations and places and often requesting the player to compete with others. Games like the *Call of Duty* series, set during the World Wars, or *Battlefield*, or the *Fallout* series, with an original plot developing, as the title suggests, in a world ruined by a nuclear war, seem to obtain a far greater success in Europe and the U.S. rather than in Japan. In a sense, as Ashcraft (2013) states, “there’s a cultural gap between Japan and the West that even manifests itself in how fantasy worlds are seen”,⁹⁹ and Japanese-style fantasy worlds aren’t always the ones players prefer (although, as the *Final Fantasy* saga seems to suggest, they do gather an important fanbase for themselves). It must not be forgotten, however, that most companies are by now famous for developing certain types of games: Japanese Square Enix, for example, is mainly known for its fantasy games, some of which also benefit from the cooperation of the famous *manga* drawer Akira Toriyama – creator of the *Dragon Ball* series (first *manga* chapter: 1984). It is likely, then, that companies with a similar policy are in the end completely alien to players who don’t show a preference for their game genres. As we read in *Kotaku* (2013):

Traditionally, the most popular genre in Japan is role-playing games. With the *Dragon Quest* and *Final Fantasy* games, that genre has largely flourished on consoles. So when Japanese gamers think of video games, they most likely think of the default: the most famous or most popular games. And those games have appeared on consoles.¹⁰⁰

Favorite genres, then, do have some influence on what games players decide to buy and

⁹⁹ Brian ASHCRAFT, “American Developers Comment on Japanese Video Games’ Weaknesses”, in *Kotaku*.

¹⁰⁰ ASHCRAFT, *ibid.*

eventually get affectionate to. The next chapter will try to determine how an influence do this and other factors have on the success of a company; also, two companies crucial to the digital entertainment will be examined with the aim of this thesis in mind.

CHAPTER 3: Practical research

The Japanese game panorama is a widely-ranged one, offering an astonishing quantity of games. While also including popular Western games, it also includes a surprising amount of Japan-developed titles that players from other countries may not even have heard of. As we examined in the previous chapter, there are many reasons why this happens, spacing from players' tastes to economic issues; the purpose of this thesis – namely, to ascertain whether Japanese video games are affected by the Galapagos syndrome – calls for field data examining customers' preferences. For this reason, the author has conducted surveys on players to have a clear view on what might influence the distribution of a videogame (specifically, of a Japanese videogame to Western countries).

3.1 Surveys on players

Two surveys have been conducted on the players: their content is the same but in two different languages (Italian and English).¹⁰¹ They are divided into 6 sections: the first one asks gaming habits of the player (how many hours a day, consoles used etc.), preferences (mainly of genres) and personal questions about age, sex and provenance (the latter limited to the English survey, that generically appealed to players from outside Italy); sections 2 to 6 each concern a single game saga, and ask the interviewees whether they know and have ever played the games and what they like/dislike about those. Games have been specifically chosen to meet this dissertation's needs. Two of these are Japanese RPGs, *Final Fantasy* and *Persona* sagas, the latter of which has already been discussed: one (*Final Fantasy*) is of great relevance to the videogame panorama – as we shall see later in this chapter – and its latest installment *Final Fantasy XV* (2016) has been long awaited by the fans. *Persona*, developed by Atlus, has gathered less popularity than Square's ace in the hole (still being diffused in US and Europe to a certain extent). D'Angelo's piece for *VGChartz* reveals that *Final Fantasy XV* had sold 6.5 million units by September 2017,¹⁰² while *Persona 5* (2016) has scored 2 million units

¹⁰¹ The choice of creating two surveys is subordinate to the existence of language barriers that may have potentially reduced the number of answerers.

¹⁰² William D'ANGELO, "Final Fantasy XV tops 6.5 million units sold", in *VGChartz*.

sold by December 2017 (globally).¹⁰³ On the other hand, three Western-developed games have been aligned: first, the action-adventure *Assassin's Creed* by Ubisoft, born from the ground-breaking idea of using a machine that can read a person's DNA in order to reconstruct and virtually live again memories of ancestors from a far-away past; then two sport games have been named together, *FIFA* and *Pro Evolution Soccer (PES)*; finally, three last questions asked about the *Mafia* saga, jointly developed by Illusion Softworks and published by Gathering of Developers. Similar to the Japanese games of choice, here *Assassin's Creed* and the sport duo have been chosen as "best known and played", while *Mafia* has been considered a more "niche" game in comparison.¹⁰⁴

The survey has been published on Facebook in order to reach a wider portion of players, and a total of 184 people answered it.¹⁰⁵ Both the Italian and English version (the latter of which will be referred to onwards as "global" version, or GL for short)¹⁰⁶ have shown a general demographic trend: male people tend to play more than women (IT: 71%; GL: 92.9% of the surveyed), with an age of 18 to 30 years old (IT: 92%; GL: 79.8%). The question "How long do you play each day?" has instead shown substantial differences: while the majority of Italian players tend to keep playing for 1-2 hours a day, immediately followed by those who play less than an hour per day, a striking 77.3% of players from other countries can keep playing up to 4 hours per day.¹⁰⁷ While the Italian survey showed that a modest 28% of people play less than an hour per day, the same range of the global survey is only occupied by a wee 2.4% of surveyed. Results show that mobiles are mostly used to play games, and while in Italy they are immediately followed by PC and home console gaming the difference is significant in the global survey, with an equal 42% of players versus 82.1% of mobile players (Table 1 shows comprehensive results of both surveys).

¹⁰³ William D'ANGELO, "Person 5 shipped 2 million units sold worldwide", in *VGChartz*.

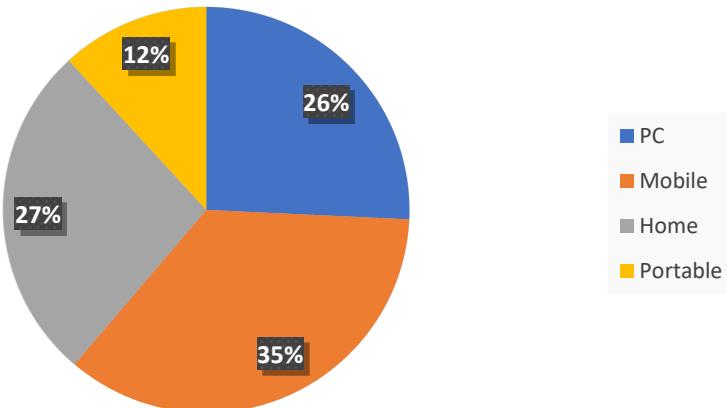
¹⁰⁴ Although being a popular genre in Japan, dating sims have not been considered in the survey due to being less popular in Western countries (based on appearance in stores). Note, however, that similar games started being steadily spread on digital stores in recent years. Also, more in detail, sport games have been mentioned in the survey based on the top tens of games sold that has been quoted in 2.3.

¹⁰⁵ 100 people answered the Italian survey, while 84 answered the global survey. The survey has been closed a month after its first publication.

¹⁰⁶ The "global" version does not take into account Japanese players.

¹⁰⁷ Divided as follows: 33,3% (1-2 hours per day); 44% (3-4 hours per day).

Table 1: Which of these devices do you use the most to play?



The highlights that mainly cover this thesis's interest are, however, those concerning players' game preferences – expressed in the latter part of the first section. For example: "Would you start a New Game Plus in a game that has this feature?". Being the so-called "New Game Plus"¹⁰⁸ a feature typically found in Japan-developed games, the intention here is to observe how much similar unique features are popular outside their original country, and whether or not non-RPG players (in other words, those who prefer Western-style games) would be interested in such a feature. Results showed that 76.6% of interviewees (141 people) would play a game from scratch in New Game Plus mode, leaving out a 23.4% (43) of people who wouldn't exploit it; it is worth to mention that 100 out of the 141 people from the former group don't play RPGs (but, for the sake of clarity, would use a feature typical of Japanese RPG games).

Even more interesting to this thesis is the section concerning game genres – that asked to the interviewees which ones among a given pool of genres they would rather like playing.¹⁰⁹ The survey started with no more than a general knowledge on the panorama – that is, from the assumption that

¹⁰⁸ To the benefit of the interviewees who may have not known the feature, a brief explanation has been included in the question itself.

¹⁰⁹ Note that this query allowed for multiple preferences selection.

Western players would rather choose a first person shooting (FPS) or a sports game over a role-playing game (assumption that has been mainly founded on web research with focus on the charts introduced in 2.3). However, having only had the chance to distribute the surveys to players belonging to certain groups,¹¹⁰ a different fashion has emerged: namely, that those players like RPG more than the aforementioned FPS and sport games; on second and third place respectively, they have shown a preference for action and platform games too (note, typically Western genres). For the sake of this thesis non-RPG players' answers have been considered – with a special attention to the ensuing two sections of the surveys (about the *Final Fantasy* and *Persona* sagas). Among the 57 people (comprehensive of both surveys) who haven't shown preferences for RPGs, 22 (corresponding to 11.9% of total) are not familiar with the FF saga, and 35 (19%) have not heard of the *Persona* saga, as a matter of fact confirming that personal preferences do play a part in the general knowledge of the gaming world. In other words, players who don't usually play RPGs (or similar typically Japanese genres) have shown a tendency to be alien even to those titles that are generally recognized as a cornerstone of the gaming industry.

3.2 Case study: Square Enix

Following the survey's results, we shall examine sales reports from two companies crucial to the digital entertainment industry, starting with the formerly mentioned Square Enix, producer of many worldwide best-sellers. The company was born when Enix Corporation and Square Co., Ltd merged together in April 2003 (the former absorbing the latter), which also saved Square Co. from bankruptcy. As of today, Square Enix can count on game franchises among the most known and well-anticipated by fans, namely *Final Fantasy*, *Kingdom Hearts* and *Dragon Quest* (and more); these three games are known everywhere in the world, and have managed to create a community of fans constantly waiting for new titles to be added to the list. Square Enix's strategy is profoundly different from that of many Western producers, like for example Ubisoft: while the latter often aims to sell at

¹¹⁰ Specifically, to players of mobile phone games and, in smaller part, of home consoles; of course, players with different preferences have filled the survey too (as the surveys themselves confirm).

least one title per year of their main series (e.g. *Assassin's Creed* series¹¹¹), Square Enix – which of course also has new titles developed every now and then, the most frequently they can – fundamentally focuses on producing new games for the main series. *Final Fantasy* saga, for example, first launched in 1987 on PlayStation hardware, and since then new games have mostly been released to be played exclusively on home consoles – although many spin-offs and remastered versions have been produced which can be played on computer (especially online titles), smartphone (like *Final Fantasy Brave Exvius*), handheld consoles (*Final Fantasy Tactics*) etc. While their one-per-year policy has taken many fans away from Ubisoft's games, eventually forcing the company to take some sort of a “break” in 2016 from publishing a new installment,¹¹² Square Enix can overall be said to have had great success globally. Let's examine this assertion data at hand.

From Square Enix's financial report for the fiscal year ended March 2015, it emerges that the company has been able to reach to the global market through the introduction of titles most welcome to the Western gamer community: as stated in the report,

Demand for the HD version [of *Final Fantasy Type-0*] was strong from European and North American game players, as the PSP version had only been available in Japan. As such the title, which includes a playable demo of *Final Fantasy XV*, has proven a major success, selling over a million units globally.¹¹³

Square Enix¹¹⁴ has thus demonstrated being able to meet what the players, in Japan as well as in the West, ask of them, not only with remasters of old titles previously exclusive to Japan but also combining traditional and newly created elements in their new titles, as is self-evident in *Final Fantasy XV* – that has caught attention from both old fans and new players at their first meeting with

¹¹¹ The series has had a new game added to the lineup every year, spanning from 2007 to 2015.

¹¹² In 2016, Ubisoft decided to release a remastered version for PS4 of three of its most loved titles, called *The Ezio collection*, instead of releasing a brand new title (which came in 2017 with the name *Assassin's Creed: Origins*).

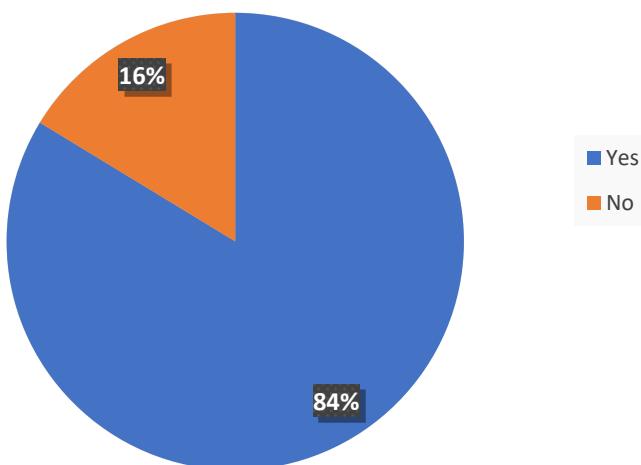
¹¹³ Square Enix, 2015 Annual Report, p. 5.

¹¹⁴ The name will be seldom abbreviated in SE in the upcoming pages.

the saga. The briefing meeting held May 11, 2017 has outlined as follows: “The greatest contributor to earnings there was ‘*Final Fantasy XV*’, which achieved global sales of 6 million units faster than any previous title in the franchise”.¹¹⁵

As emerging from Table 2 below, when questioned about SE’s *Final Fantasy*¹¹⁶ saga a striking majority of the interviewees is familiar to it, although answers to the question “Have you ever played a FF game?” (Table 3) are evidently more balanced (dividing players and non-players almost in half).¹¹⁷ SE’s success with this series is based on a formula that has always kept affectionate fans’ interest high – which in turn helped sales. Square is also active in the amusement and publication sectors and has an own merchandise, but its main income source is of course the digital entertainment (videogame) sector, which has always provided the company most of its earnings – with at least a 66% of sales in the last three fiscal years, ranging from 66,5% in 2015 to 77% in 2017.

Table 2: Do you know the FF saga?

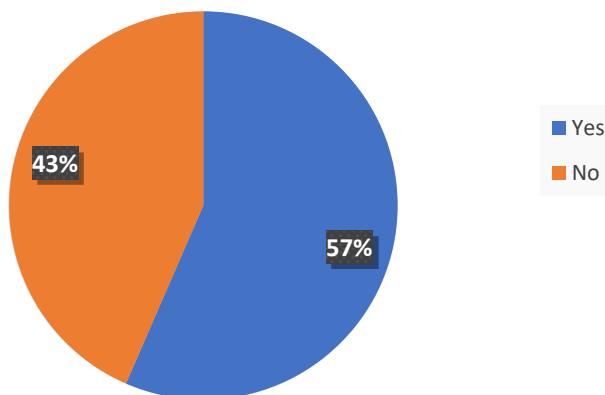


¹¹⁵ Outline of Results Briefing held on May 11, 2017, p. 2.

¹¹⁶ The title will be seldom abbreviated in FF in the upcoming pages.

¹¹⁷ Both Tables account for total results of GL and IT surveys.

Table 3: Have you ever played a FF game?



Square's annual report for the fiscal year ended March 2017 reads as follows concerning the FF saga:

The *Final Fantasy* series will celebrate its 30th anniversary in 2017. It has earned high praise from fans all over the world for its cutting-edge graphics, unique world view, and rich, in-depth storylines. Since its launch in 1987, the series has sold a total of over 130 million units worldwide. The newest entry, *Final Fantasy XV*, supports 12 languages, the most of any game in the series. Its epic story and huge, open world have formed the basis of a full-length CG movie, anime, and smartphone game, among other content.¹¹⁸

Coherently to the FF saga being their trump card, Square Enix has thus expressed the will to celebrate its 30th year from the first installment, and has thus released new content for latest games in the series (like *FFXV*) or even announced new titles in the lineup, for example the recently released *Dissidia Final Fantasy Opera Omnia* (2018), a mobile phone game with characters from previous

¹¹⁸ Square Enix, Annual Report 2016, p. 12.

installments, and *Dissidia Final Fantasy NT* (2018), a PS4 exclusive of similar mechanics. Their combat system based on previous *Dissidia* titles, together with a roster made of characters and arenas previously appeared in the main series, are what mainly attracts players to this game:¹¹⁹ while their peculiar combat systems may in a sense be taking a risk, the choice of including characters from the whole FF universe has always proved good fascinating old fans and new ones alike.¹²⁰ A particular emphasis must be marked on how Square Enix managed to keep old-times fans close to their main series: whereas some reviews seem to have disliked the new combat system introduced in *Final Fantasy XV*¹²¹ (one that had formerly been iconic of *Kingdom Hearts*, another main for the company), Square has also brought new life to the old titles fans loved, as we see in *Final Fantasy XII – The Zodiac Age* (2017), an HD remaster of their PS2 title *Final Fantasy XII* (2006). Their move seems to have been liked by customers, and the remastered *FFXII* has sold over 1 million copies within three months from its release.¹²² Publishing remastered versions of old titles, furthermore, can be considered a way of helping new fans play those games that have been developed for old consoles, allowing them to be played on last generation hardware.

It has previously been mentioned how Square usually publishes numbered titles¹²³ taking a very long time for development. As one might wonder how they manage to always keep fans' interest for those titles active, it is important to keep in mind what has been said about old-times fans until now: besides remastered versions of old titles,¹²⁴ Square seldom releases spinoffs for different consoles or mobile phones, like *Mobius Final Fantasy* (2015), which surpassed one million downloads on Google Play Store.¹²⁵ Square Enix's mobile production is a fifteen-years long consolidated tradition, begun

¹¹⁹ A critical review can be found in Andi HAMILTON: “*Dissidia Final Fantasy NT Review*”, in *Kotaku*. (02/06/2018)

¹²⁰ The *Dissidia* spinoffs debuted on PSP in 2008 with a special title released to celebrate the 20th anniversary of *Final Fantasy* universe, named *Dissidia Final Fantasy*. While *Dissidia* titles usually exploit a 3D action combat system that mostly appeals to new players, *Opera Omnia* has a turn-based combat system, which is usually preferred by old-times fans of the series.

¹²¹ A critical review of “warts and wrinkles” (quoted from article) of the game can be found in Jason SCHREIER: “*Final Fantasy XV: The Kotaku review*”, in *Kotaku*.

¹²² Official communication from Square Enix's JP website: “(PS4) *Final Fantasy XII – The Zodiac Age* has surpassed 1 million copies shipped and downloaded” (10/26/2017).

¹²³ A colloquial way of referring to titles for the main series (since they always include a number).

¹²⁴ The choice of remastering a title isn't always acclaimed by the audience. As a reference, read HONOROF's article weighing pros and cons of games' remastered versions.

¹²⁵ Source: Google Play Store.

in 2002 with *Dragon Quest Monster I* which was only released in Japan; *Brave Shot*, however, opened contacts with North American players the following year, as *ActRaiser* did for the European audience in 2004. *Song Summoner: The Unsung Hero* was Square's first mobile game available worldwide since its launch in 2008. Finally, in 2010, the company started developing portings on mobiles of their *Final Fantasy* saga, these too made available for both NA and Europe since release.

3.3 Case study: *Nintendo*

By most said to have faced rough times, Nintendo Co., Ltd, has engraved its name in stone at least as much as Square Enix has. What differentiates these two companies, both legends in the gaming industry, is how they approach their sector. Enough was said of Square sales tactics, based on long-term announcements of greatest hits and minor titles mainly aimed at keeping the interest of fans alive; on the other hand, besides having its own game lineup, Nintendo can also count on proprietary consoles. Their various efforts to make themselves a name in the hardware market have only been briefly mentioned until now; here is a short list of the most important moments for the company:

- 1975: debut in the arcade market with the release of *Donkey Kong* arcade cabinet;
- 1980: launched *Game&Watch*, a handheld console with a single game installed (more consoles with different games were developed later);
- 1983: Japanese release of the *Famicom*, Nintendo's first home console, with ports of some of their games for arcade cabinets; launched in North America two years later with the name *Nintendo Entertainment System – NES*. Also, the *Super Mario* series debuted on Famicom: its protagonist would later become the company's mascot, and the game was to become one of the best selling in history. A smaller redesign of the console was later released (called NES-101, in 1993);
- 1989: the idea of merging Game&Watch's portability and NES's cartridge interchangeability gives birth to *GameBoy*, Nintendo's most valuable handheld console ever;

- 1990: *Super Famicom* is released in Japan, standing up as the main competitor for Sega Mega Drive; its American release as *Super Nintendo Entertainment System* would have to wait the following year, while it was launched in 1992 in Europe;
- 1995: released *VirtualBoy*, an attempt at producing a virtual reality console. Poor graphics and gameplay, which also induced physical problem to the players, led to the console being quietly withdrawn from the market;
- 1996: *Project Reality*, a system prototyped back in 1993 that could support 64-bit game cartridges (thus called *Ultra 64*) and then delayed to unknown date, was finally launched with the name *Nintendo 64* simultaneously in Japan and North America (later to other countries). Its fair success helped Nintendo rise their income, together with a smaller version of the GameBoy (the *GameBoy Pocket*) and a redesign of the Super Famicom (released 1997 as *SNES-101*);
- 1998: released *GameBoy Color*, an evolved version of the handheld that now supported a limited range of colors and games specifically made for the console, as well as those that run on its predecessor. Also, two accessories were released, the *GameBoy Camera* and *Printer*;
- 2001: *GameBoy Advance* is released as an improved version of the GameBoy, with new, smaller cartridges and backward compatibility to the old ones. Since sales were still dropping down, the same year the company also released a new home console, the *GameCube*, which still didn't help improving the situation;
- 2003: GameBoy line is expanded by the launch of a clamshell-designed new handheld, the *GameBoy Advance SP*.
- 2004: *Nintendo DS*, an evolution of Nintendo's GameBoy, appears on the market on November 21. It is the first handheld console that makes use of two screen, of which a touch screen that can be used with a dedicated pen, and its cartridges are greatly reduced in size.
- 2006: launch of *Wii*, a console that makes use of a bar sensor to detect how the player moves in the environment and simultaneously move his in-game avatar (although Sony had produced

its own movement-sensitive add-on, *EyeToy*, Wii is the first console completely based on an oscilloscope).¹²⁶ This new entry has been of great importance to Nintendo's comeback on the home console market.

- 2011: Nintendo DS line evolves again into *Nintendo 3DS*, which first implemented 3D technology in handhelds.
- 2012: *Wii U* is launched. It is a new home console, whose controller is bigger than a normal one and features a 6.2" touch display that can remotely reproduce what is displayed on the tv. It is Nintendo's first console with a 1080p definition.
- A special mention goes to the *Nintendo Classic Mini: Famicom/NES* and *Nintendo Classic Mini: Super Famicom/SNES*, two functioning and smaller replicas of the original Famicom and Super Famicom. Respectively released in 2016 and 2017, they include two controllers and several games from the original lineup of the two consoles (Mini NES: 30; Mini SNES: 21). They've been released as limited editions (although Mini SNES is seldom dispatched again in limited numbers to games and electronics shops like GameStop).
- 2017: after an announcement on October 2016, in March 2017 Nintendo launched a brand-new system called *Switch*. It is a hybrid console: small as a handheld, it can be played in any place; however, the buttons and sticks on the sides of its screen are actually two controllers that can not only be detached and used by a single person but also shared by two or more players. Switch can also be plugged to a TV and played by detaching the side controllers, which is what earns this console the aforementioned "hybrid" definition.

Before going on, it is important to focus for a while on Nintendo's hardware sales to have a general understanding on the subject. Taking as a model Sony's and Microsoft's home consoles launched in the first years of the last decade, PlayStation 2 scored 100 million units sold worldwide by the end of 2005, almost 6 years after its debut on the market (5 years 9 months exactly), and 11

¹²⁶ An oscilloscope is a device capable of detecting any movement of the object that makes use of such a technology.

years after its launch it was still a best-seller with a total of around 150 million units sold worldwide – according to data gathered for Forbes by D.M. Ewalt (2011);¹²⁷ Xbox, on the other hand, had sold 24 million units worldwide as of May 2006 (almost 5 years after its launch), the great majority of which in the US (16 million units). The console had its worst sales report coming from Japan, where only 450,000 units were sold within 10 years after its launch: this is mainly due to the lack of titles that could also appeal to a Japanese audience, mainly RPG and *anime*-like titles.¹²⁸ Turning to Nintendo's share of the market, the company's GameBoy Advance SP, launched in February 2003, had sold 43.52 million units worldwide within 5 years from its launch, scoring 81.48 million units sold together with its predecessor. The launch in December 2004 of the new *Nintendo DS*, a clamshell handheld console with two screens (DS stands for “Double Screen”) one of which implementing for the first time touch technology in a gaming device, became a milestone for the company who nowadays owes a lot to that idea. As a matter of fact, a simple look at Nintendo's financial highlights, more precisely at the “Dedicated Video Game Sales Units” page of the company's website, Nintendo 3DS – descendant of the DS handheld – has managed to earn itself recognition as a best-seller, far outnumbering Wii U when it comes to units sold. Moreover, notwithstanding its very recent release, Switch has already surpassed Wii U sales, but is still being kept at a far distance by Nintendo's best-ever handheld.¹²⁹

On 2006, Sony and Nintendo simultaneously launched their new generation home consoles, PlayStation 3 and Wii. These were profoundly different hardware pieces: PS3 could count on exponentially improved HD graphics, which could even be further enhanced by connecting the console to the TV via an HDMI cable. In later versions, the backwards-compatibility with PS2 games was eventually removed, but all the models benefited of an improved Internet connectivity (Wi-Fi line was supported too) thanks to which the console could also be remotely controlled by a PSP or PS Vita system. Notwithstanding all these new features, PS3 had a rough start mainly because

¹²⁷ David M. EWALT, “Sony PlayStation 2 Sales Reach 150 Million Units”, in *Forbes*.

¹²⁸ For more: Mitch DYER, “The Life and Death of the Original XBox”, in *IGN UK*.

¹²⁹ Release dates, of course, play a decisive role in numbers of units sold.

competition had become very hard. First of all, Microsoft had launched their new Xbox 360 the previous year (2005), thus gaining a great time advantage on the market and on game developers too: thanks to this in fact, developers that had previously been granting exclusive rights to Sony to distribute their games now turned to a multi-platform approach. Xbox 360 sold out in many regions upon release, selling a total of 1.5 million units within 7 months from launch. About eight years later, although it had even less success in Japan than his predecessor had, Xbox had sold for a worldwide total of 80 million units. Despite their unpromising start, Sony's worldwide sales also reached the 80 million mark in 7 years. In such a panorama, Nintendo couldn't help but devise ways to face this fierce competition with the newborn Wii. Their innovative idea, as stated in the March 31, 2007 FY report, was to have success:

Wii has been attracting expanded audience demographics as well as conventional gamers following last year's launch, and consequently has gained wide-spread popularity. The video game industry is now on a new growth path driven by the strong performance of both Nintendo DS and Wii.¹³⁰

What helped Wii gather its success is a revolutionary conception of gaming for its era: while competitors focused on improving graphics and gameplay, Nintendo resolutely renounced to HD graphics to produce something that could also captivate new kinds of gamers. To quote Accordi Rickards (2013):

Nintendo based its strategy on creating a peculiar controller and publishing titles with a very low learning curve.¹³¹ As in *Wii Sports*, GUIs¹³² are user-friendly: they use a big

¹³⁰ Nintendo 2007 FY Financial Review, p.16.

¹³¹ *Learning curve* is a graphical representation of how an increase in learning comes from greater experience; in this case, it indicates how long does it take to a player to learn a game's basics and to become able to play.

¹³² Graphic User Interface.

font size and are easy to figure out. [...] Nintendo CEO Satoru Iwata declared his intention of approaching non-players, ultimately modifying an image of unhealthiness that had always accompanied gaming so to make them welcome [to the public].¹³³

Previous attempts by Nintendo at producing home consoles were already mentioned: they have overall met a good reception, as their NES debut suggests. Since then, their winning strategy has been that of maintaining acceptable technical performances to enable a better usage. This is what they did with the GameBoy line, first launched in Japan in 1989 and in the West the following year; the handhelds gave up on graphics to let the battery last for longer periods of time – which eventually sold more than Sega's attempts at higher graphics and better processing units.¹³⁴ GameBoy was sold until early 2001, when its successor GameBoy Advance was released. The GameBoy also had variants: following the two versions *Pocket* and *Light*, respectively featuring a new design that made the device lighter and a backlight enabling the player to use it in low light condition, it evolved into Game Boy Color (as the name suggests, this one introduced color to the games), Game Boy Advance (with a new design and technical improvements), Game Boy Advance SP (featuring a clamshell design and more technical improvements) and finally a Game Boy Micro (even more easy to bring everywhere due to its very small design); Nintendo then implemented touch screens in their handheld consoles, starting a new line with the so-called *Nintendo DS* systems: these ones also evolved, becoming smaller and more well-performing. Finally, they introduced 3D technology, giving birth to the *Nintendo 3DS* family.

Though Nintendo earned itself the spotlight as a portable consoles producer, their fortune with home consoles wasn't as lucky. If we examine the history of their home consoles, for example that of Nintendo 64,¹³⁵ it is self-evident how several of the most known titles ever where launched on their

¹³³ ACCORDI RICKARDS, *Il videogioco*, p. 23.

Wii Sports is a Wii title that includes simulation of several sports, to name some bowling and golf.

¹³⁴ Mark LANGSHAW (2015), “Sega Game Gear vs Nintendo Game Boy: Which '90s handheld was the real games master?”, in *Digital Spy*.

¹³⁵ The name may be abbreviated in N64.

platform and caught the attention that was hoped: in 1998, for example, *The Legend of Zelda: Ocarina of Time* was released as a N64 exclusive, and is still considered one of the best games of all time, sometimes gaining high rankings in gaming magazines.¹³⁶ The Zelda series is still ongoing and hasn't lost its fame.¹³⁷ Also, just some years before N64 entered the market, Nintendo had made one of the first attempts ever at introducing 3D depth perception in gaming with their *VirtualBoy* console (a home console released in 1995, though the name may trick into thinking that it belonged to Nintendo's handheld production): this is particularly important if we consider that attempts similar to this only successfully managed to introduce virtual reality in gaming in very recent years.¹³⁸ Despite this important innovation VirtualBoy had faults too, that spaced from unimpressive 3D graphics to the lack of games and a monochromatic display. For these reasons, the console didn't get the attention Nintendo hoped.

Notwithstanding its promising start, N64 eventually failed the market too, very likely due to the choice of using cartridges as a support, which subsequently led to several companies that had always published their games as Nintendo exclusives abandoning the partnership. In fact, while cartridges undoubtedly had merits like faster access times, higher durability and sensibly lowered risks of duplication,¹³⁹ their limited capacity eventually led to them being far than surpassed by CD-ROMs, that were now being used by most of the other developers. Square Enix, to say one, stopped releasing their titles for Nintendo 64 (as they had always done before), and *Final Fantasy VII* (1997) was their first game that was exclusively available for Sony's PlayStation. They only returned to Nintendo with minor installments in the *Final Fantasy* series, but a main one has never since been published again for Nintendo home consoles.¹⁴⁰ Nevertheless, the company didn't give up on home

¹³⁶ See Metacritic, gathering reviews from players: <http://www.metacritic.com/game/nintendo-64/the-legend-of-zelda-ocarina-of-time>.

¹³⁷ Read Express UK: "Legend of Zelda UPDATE: Big new for Nintendo Switch games fans".

¹³⁸ Attempts had also been made earlier than that, but the devices that entered the market were only available for arcade cabinets. Though not actually considered to be based on the concept of virtual reality (it did make use of stereoscopic 3D, but didn't react to the user's movements), VirtualBoy can be seen as a precursor of the VR headsets that entered the market in 2016, after years of prototyping.

¹³⁹ CDs, on the other hand, could easily be duplicated and spread without owing rights or paying a copyright.

¹⁴⁰ Note that minor installments like *Theatrhythm Final Fantasy* are still being released on Nintendo handheld consoles as of now.

consoles: for the following console generation Nintendo introduced *GameCube*, their first optical-disc based creation. Although some of the companies that had previously stopped publishing their games on Nintendo consoles came back with new multi-platform titles, its reduced disc capacity (one third that of PS2 discs), graphic limitations, the lack of backward compatibility and more mature content still had it fall behind almost any other home console, since GameCube was the only one with such limitations at that time. Also, consider Accordi Rickards's (2013) opinion on the console: “The company had previously released GameCube, a specialized console aimed at a conservative and exclusive audience that was very fond of Nintendo [...].”¹⁴¹

It's a fortune, then, that Nintendo never limited their production to home consoles. Their handhelds and games – as well as a reception in Japan that could grant sufficient income – have then been a lifesaver for the company, that managed to resist until today. As a matter of fact, Nintendo is the developer and/or publisher of some of the most beloved game sagas of all time, the two most renowned examples being the *Pokémon* and *Super Mario* franchises. The latter one was first commercialized in 1983 as an arcade game, then for home consoles (starting 1985 on Famicom) and in 1989 for handheld consoles (Nintendo's Game Boy, of course) – and maybe it's exactly thanks to that that the franchise attained the fame it has now.

The *Pokémon* franchise is just as well-known: initially released in 1997 with the name ポケッ
トモンスター (*Poketto Monsutaa*, “pocket monsters”) and developed by Game Freak, it is still today a Nintendo handheld devices exclusive. What's peculiar of the *Pokémon* franchise is that each “generation” – as they are known – can count on *two* new games at once (as, for example, *Pokémon Red Version* and *Pokémon Blue Version* couple, the two games that launched the franchise);¹⁴² the main difference is that each of the two cartridges contains exclusive creatures (*Pokémon*) that can't be found in the “twin” version: to obtain all creatures appeared in a single generation, players would

¹⁴¹ Marco ACCORDI RICKARDS, Francesca VANNUCCHI (2016), *Il videogioco: mercato, giochi e giocatori*, Mondadori Università, p. 22.

¹⁴² In Japan, the two games for the first generation were *Pokémon Red Version* (ポケットモンスター赤) and *Pokémon Green Version* (ポケットモンスター緑), and they first launched in 1996. For the sake of brevity, from here on the word “Version” will be omitted from the title.

have to exchange them with others – which could be done by linking two GameBoy consoles via a cable known as *GameLink*. This feature was thought as a way to encourage social relationships between players, and can be considered among the reasons for the franchise's global popularity.¹⁴³ Nintendo added an element of personalization by customizing each package with the image of a Pokémon (specifically, *Pokémon Red* and *Blue* packages featured two of the three starter creatures the player could choose when starting the game, thus in some sense making players “take sides” based on which starter Pokémon they chose); from generation 2 onwards (*Pokémon Gold*, *Silver* and *Crystal* versions), the packages display the so-called “legendary Pokémon” of each game, each one exclusive to one of the two version in a generation. Since then, these have all been distinctive features for the franchise, along with spinoffs and new main installments for the series being sold every now and then.¹⁴⁴ Also, each generation of the franchise can count on a third game, released later than the main couple and set in the same world but with slightly different mechanics. The first generation *Red* and *Blue*, for example, was immediately followed by *Pokémon Yellow Version – Special Pikachu Edition* (or *Pokémon Yellow* for short, ポケットモンスター ピカチュウ – lit. “Pocket Monsters Pikachu”), which is really unique in the franchise: differently from any other games in the series, this version follows a storyline more truthful to that of the anime *Pokémon*, first broadcasted on Japan television on April 1997; secondly, it also featured the Pokémon Pikachu physically following the player everywhere they went – just like he followed Satoshi, the main character in the anime series. Since then, Pikachu became an icon for the series, and was featured in any single installment.

With these data at hand, why then did Nintendo falter in the Western market? A first reason can be found in the above-mentioned Pokémon franchise, for starter: players are indeed affectionate to the happy-looking creatures they grew up playing with, but on the long term childhood memories don't suffice as propeller for a franchise. Looking at their history, after all, Nintendo never introduced massive changes to their production: their proprietary consoles did undergo small improvements of

¹⁴³ Read Christian NUTT (04/03/2009), “The art of Balance: *Pokémon*'s Masuda on Complexity and Simplicity”, in *Gamasutra*.

¹⁴⁴ E.g: the *Pokémon Mystery Dungeon* series.

course, but they seemingly revealed to be no big deal. Nintendo first tried to change their fate with the introduction of a home console, the *Nintendo Wii*, which was kind of an innovation for the market. The devices used to play games on Wii differed from any other ones in the market not only in their design, but also because they allowed players to move their in-game avatar by moving their very arms.

This technology was not totally new: Sony had already tried implementing it on their consoles with *PlayStation Eye*. Basically, PlayStation Eye is a camera that, connected through a USB cable to a PlayStation 2 system, is able to detect the players' position and movement in the space and sends signals to the hardware so that each movement corresponds to an action in the game.¹⁴⁵ *Wiimote*, Nintendo Wii's controller, was based on a similar mechanic: the console package contained a bar – the *Wii Sensor Bar* – which acted like Sony's Eye, detecting the Wiimote movements in the space. Wiimote also featured hardware buttons to move through menus and perform other in-game actions, but overall most of the gameplay was led by the players' movements. Later, Nintendo also introduced new devices, like the *Nunchuk* – an add-on for the Wiimote to be used in games where the character moved both arms – and *Wii Balance Board* – a board only working with *WiiFit*, a fitness game, that kept track of the user's physical characteristics like weight, center of balance and body mass. *WiiFit* also asked the player to input their age and information about their lifestyle, and continuously recorded physical progresses, also enabling the user to input their aim and the deadline they wanted to reach that before.

Wii later evolved into *WiiU*, a hybrid between a home console and a handheld device of reduced dimensions (though it had a built-in screen together with hardware buttons). This time Nintendo didn't only develop games from scratch for their console, but also had it feature already available games like Ubisoft's *Assassin's Creed III* (first released October, 2012), until then available on computers and Sony and Microsoft consoles. Notwithstanding their attempt to create something new, with ports of well-known franchises and games from other consoles, *WiiU* has never met Nintendo's global

¹⁴⁵ As a practical example, take *EyeToy: Play*, the first game specifically designed to work with PlayStation Eye: the screen reflected the images recorded by the camera, and in order to move through the menus the player had to raise their hand and wave it in a point of space corresponding to the in-game buttons, which they could see on the screen too.

expectations of success, and its production has recently been stopped subsequently to the commercialization of *Nintendo Switch*.¹⁴⁶

This information is supported by a conspicuous amount of data, provided by Nintendo themselves for their annual report. For the fiscal year ended March 2016, for example, “[...] ordinary income was ¥28.7 billion (U.S.\$253 million; a decrease of 59.2% on a year on year basis) and profit attributable to owners of parent was ¥16.5 billion (U.S.\$146 million; a decrease of 60.6% on a year on year basis”.¹⁴⁷ In comparison with this, read Square Enix’s annual report for the same fiscal year: “In the fiscal year ended March 2017, the Digital Entertainment Business Segment posted net sales of ¥199 billion and operating income of ¥33.3 billion, with both figures representing year-on-year growth”.¹⁴⁸ It benefits to remember that profits shown above for Nintendo also include handheld sales, a revenue source that Square Enix doesn’t boast.

3.4 Making the difference

The cases we studied outline two different profiles. While both companies taken into examination are Japan-based, and thus mainly ground their production on a Japanese audience, their approach as to how their games are produced are very different. Squaresoft struggled their way back on the market when on the verge of bankruptcy betting all they had on a final chance, which took the moniker of *Final Fantasy* – a moniker that still today, after the striking success of that first installment, is in use as a lucky-charm. The game has been mentioned time and again during this thesis, and the main reason is that an analysis of Square’s market strategies cannot overlook such an important cornerstone in the company’s history, one that has saved it from failure and that still provides them most of the fanbase a software house needs to keep their place on the market. Square Enix Co., Ltd., as it came to be known after the merger with Enix Co. (that saved Squaresoft from its second bankruptcy), has also developed new titles that have gathered equal fame, but the FF saga is still the

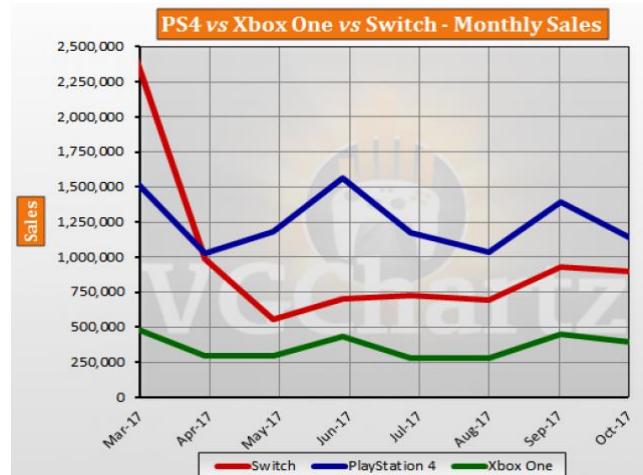
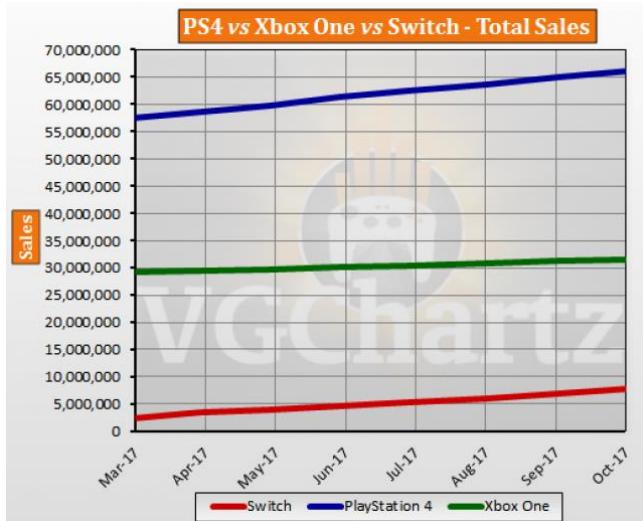
¹⁴⁶ As confirmed on *Gamspot*, where a link to Nintendo’s announcement of production stoppage can be found: <https://www.gamspot.com/articles/wii-u-production-ends-worldwide/1100-6447419/>.

¹⁴⁷ Nintendo Annual Report 2016, p. 8.

¹⁴⁸ Square Enix Annual Report 2016, p. 3.

one the company owes the most to; it is to those non-affectionate people that Square is steadily turning their attention, redesigning their titles accordingly to what is most likely to keep the affectionate close and fascinate new players.

Nintendo, on its part, hasn't overlooked the old fanbase at all – since doing so would be losing a great portion of followers. Contrarily, gathered data seems to suggest that Nintendo may have based their new productions too heavily on the requests of those players, sometimes even neglecting *potential* fans who, although not disliking previous titles from the company, have directed their attentions to others (meaning: games with more innovative mechanics). When comparing the two companies it must not be forgotten that while Square Enix is a software house (and thus only develops games), Nintendo does have proprietary consoles on which their games can exclusively be played – together with third-party games, which also includes Square Enix's themselves. Furthermore, those proprietary consoles created their solid share on the market, as we see for example in D'Angelo's diagrams (side) for *VGChartz*:¹⁴⁹ while the total sales



show Nintendo below Sony and Microsoft's consoles, certainly due to its having being released considerably later, a look at the monthly sales does show a decline in Switch sales within the first month since release; however, even considering the decreasing trend just shown and an overall lower number of units sold, Switch sales have managed to outnumber their US competitor, with higher monthly sales in 2017 and a general fashion in overall sales that clearly aims at closing up this gap

¹⁴⁹ William D'ANGELO, "PS4 vs Xbox One vs Switch Global Lifetime Sales – October 2017 – Sales", in *VGChartz*.

with a steady pace.

What is, then, the fundamental difference between these companies that have also cooperated in time? To answer this question, one must carefully keep in mind what has been evidenced in the previous chapters up until this one: on the imaginary line connecting a company's success and failure, customers stay alert and only choose what responds to their preferences. Nintendo has been betting the most on handheld consoles since their first GameBoy device was released, a formula that indirectly ended up favoring those – due to particular daily schedules – who preferred taking their fun out with them to fill their idle time, rather than wait for the long work day to end and only play when at home (eventually being so tired that playing games gets ruled out from priorities); nevertheless, their sporadic attempts at manufacturing home consoles have undoubtedly proved worth their fame, although some of them have certainly been less successful (see GameCube, ch. 3.3). Even Wii U's poor sales can eventually be considered a test-run of what was to come – namely Switch, the hybrid console that shows a promising future for the company. Switch's main merit is that of appealing to two completely different play styles – and audiences: one, the already mentioned “on-the-go” style, of those who work all day and don't have time to play when back home (a daily routine which indirectly calls for a portable console); and a second style, the “relaxed” player, that wouldn't give up the home gaming fun even after a full workday. As several of the pieces mentioned seem to suggest, each of the styles appeals to two different cultures (respectively, and generally speaking, to the Japanese and Western audiences), whose working days and habits – and not least even the mindset – are so different that require certain arrangements to be made to fit gaming in their leisure time. This seemingly slow, but in truth quite big difference's results can be summed up with Dassanayake's (2017) words: “The respected retail tracker said not only did the Switch outsell the PS4 during its opening week, but it did so almost every single week after that during the first 26 weeks on sale”.¹⁵⁰

As a final consideration, read this passage from Square Enix's annual report 2016: “Since the game's launch, we have released DLC (downloadable content) and updates to ensure its many fans

¹⁵⁰ Dion DASSANAYAKE, “PS4 v Nintendo Switch - Shock sales stat will leave Sony fans STUNNED”, in *Express*.

can continue to play it over the long term".¹⁵¹ DLCs, as suggested, are extras that software houses publish on consoles'/computers' online stores to enrich and extend players' gaming experience in the long term. Most software houses exploit this "feature", and these extras are made available to players for variable prices.¹⁵² Due to this latter issue, several developers also provide a "season pass", a one-time code that can usually be bought for 20 to 30€ and grants access to all available and future DLCs, thus allowing the player to save some money spent on extra content. Nevertheless, Nintendo doesn't usually provide extra content; this is some sort of a double-edged blade: while on the one hand players tend to buy games that will not require more money to be lengthened, on the other it constitutes a loss of money for the company, who doesn't gain from extra content and also puts itself in some risk – meaning that Nintendo's games are designed to be completed without further expansions, thus becoming a "shorter" experience in some sense.¹⁵³

To sum up, Square Enix Co., Ltd. and Nintendo Co., Ltd., while appealing to the same market sector, are two different companies when it comes to their approach to that. Square exclusively focuses on software: their name, widely known in the world for having developed the *Final Fantasy* saga, is by now more than simply sufficient to grant sales for their games; far from betting their all on their trump-card saga, which can anyway count a great amount of titles, new franchises have born thanks to SE developers – although a simple mention to the *Kingdom Hearts* and *Dragon Quest* sagas doesn't do justice to their importance for the company. Nintendo, instead, also covers the hardware sector in the digital entertainment business, which on the one hand helps them raise their income but on the other definitely stands as a worry of some sort and has to be accurately planned. As explained, though, controlling two sectors of the digital entertainment market doesn't necessarily mean that incomes will surely sky-rocket: while SE's income has been growing year after year, quite the opposite trend has surfaced in Nintendo's reports. This seems to be due to their very different kinds

¹⁵¹ Square Enix Annual Report 2016, p. 3.

¹⁵² For example, Square Enix's *Final Fantasy XV* counts around 10 DLCs available on PlayStation Store, their price ranging from around 1 to 20€ each.

¹⁵³ Opinions and facts on DLCs have been gathered and explained in *Kotaku*: "How DLC Actually Helps Games".

of game production: while both companies bet on overall a couple of franchises as their main income revenue, Nintendo's – being mainly thought for handheld consoles (of limited disk space and potential) – have never seen astonishing changes to their looks, losing to those like Square Enix who can always dispose of incredible hardware potential to develop games for last-generation home consoles and PCs. Also, as Accordi Rickards (2016) explains when talking about Wii, “If on the one hand sales for that consoles have established it as a market leader for its generation, on the other the lack of casual titles determined an abandonment of the same by passionate players of their brand”.¹⁵⁴

¹⁵⁴ ACCORDI RICKARDS, *Il videogioco*, p. 24.

Conclusions

First, we have defined the concept of “Galapagos-ization”, whose origins are unclear but can roughly be traced to ICT group’s 2007 meeting when the term seem to have been coined. As the name suggests, it refers to a situation similar to that of the Galapagos Islands, an archipelago populated of unique species than have adapted to the environment and made the islands their only eligible habitat in the world; the so-called “Galapagos effect/syndrome” (or Galapagos-ization), therefore, when referred to a market indicates a kind of goods that have been manufactured in a certain country, and have not gathered success in other markets or are not eligible for exportation for several reasons. The examples listed in Chapter 2.1 showed that among the main reasons were technical ones, in other words the product wouldn’t work properly if exported due to certain standards adopted by the importers; practical issues must be considered too, like those that prevented iMode from taking roots in foreign countries, because importing the Japanese service would have also required deeply changing the way people conceived the world of mobile communication. Finally, tastes of target customer basin may be thought of as a main factor that a company has to consider before deciding for the exportation of a product – this is perhaps what isolates most of the goods unique to Japanese market.

Since the Galapagos syndrome has been originally found in the Japanese market – and has since stayed peculiar to that one – that has been the focus for this thesis, whence the choice to limit the research to a single sector: digital entertainment. Japan has never stayed behind others as long as entertainment is concerned and began looking for improvements not long after the US exported their innovations to the country; most of what people consider “digital entertainment” today has been originally conceived by Japanese engineers, which has led to the ultimate decision of analyzing the video games section of digital entertainment. Although mentioned in two separate parts of this text, improvements for videogames have been made by both American and Japanese companies at almost the same time, to the point that influences between the two aren’t to be considered odd nowadays. Some of the big names of Japanese gaming industry have started from different areas (think about

Taito, that began as a vodka distiller), but eventually saw the real potential of the newborn market and shifted their interest. Not all have been successful, but without a doubt each one of those mentioned has left a mark on the history of videogames. Among all the “bigs” in the Japanese video game market, the author has decided to focus on Square Enix and Nintendo, two developers of great success.

Square Enix Co., Ltd. was created as Square Co., Ltd. in 1986 in Japan, becoming independent from their parent company *Denyu Co., Ltd.* – an electronic manufacturer; having developed some Famicom games that didn’t gather the expected success, it relocated and decided to give one last chance to videogame development. Thus *Final Fantasy* – their most iconic series – was born, bringing back Square from ashes. In 2003 the company, again on the verge of bankruptcy, merged with Enix Co., Ltd. and became the Square Enix it is nowadays, securing their spot in the videogame panorama. Fans of their first *Final Fantasy* game still give support to the company and to their main titles, that have grown in number and gained each its own fame. The thesis has studied Square Enix’s market strategy, that of keeping high the interest of old-times fans with remastered titles as well as new, astonishing creations, all the while devising ways to also catch the attention of new audience with graphic and technical arrangements to their games.

Nintendo Co., Ltd., on the other hand, had been present on the Japanese market for almost a century when Square was created, and had formerly been a card game business and toy manufacturer. Upon meeting the video game industry, the company almost immediately gave their contribution to it obtaining distribution rights in Japan of the American *Magnavox Odyssey*, the world’s first home console launched in 1972. That was only the beginning of their fortune: besides some coin-ops of success (*Donkey Kong*), Nintendo soon began thinking of proprietary hardware, and created their first handheld (*Game & Watch*) and home consoles (*Famicom*). While they both evolved during time, the company has undoubtedly shown a kind of preference for the handheld market (due, most likely, to their being the first and best producer) and eventually focused on their development: the latest *Nintendo 3DS* has gathered huge success, also thanks to iconic titles the likes of *Super Mario* and the

Pokémon series, two universes of incessant evolution throughout time. The handheld market, anyway, has unwillingly only favored part of the players, leaving uninterested ones behind; therefore, Nintendo has made some attempts at also appealing to the missing portion of market, but the choice of titles – and most importantly the existence of favored manufacturers – has eventually had them falling behind those who made of producing home consoles their main objective. Nintendo Switch, though, has represented a huge turning point for Nintendo’s home entertainment, and having also offered enormous space for new ideas promises a shining future for the company.

Far from meaning to praise one or the other developer, the question that moved this thesis was presented through Chapter 2: does the Galapagos syndrome have any effect on videogames? With this purpose in mind, the author has gathered sales data for both the companies; Nintendo’s and Square’s software sales have been compared, and with the former also being a hardware manufacturer more data has accordingly been gathered and compared to other hardware manufacturer’s reports. To have a better comprehension on how the Western videogame market works, two surveys have been conducted with the stated purpose of grasping the players’ tastes about videogames. Assuming that Nintendo’s games have in some way followed most Western players throughout their childhood – and that they would therefore know those games even if they hadn’t played them – what emerged is that there is indeed a portion of those players who hasn’t even heard of the most famous games from Square Enix – that have nevertheless gathered a huge fame. The surveys have overall managed to outline general preferences in the Western market, and have confirmed that genres that are typically popular in Japanese videogames have not gathered the same *entourage* in the Western market – while some lesser titles may have been exported outside Japan, they unquestionably have a profoundly minor number of followers. Even though the surveys didn’t clearly ask the interviewees about those “niche” titles popular in Japan (to name one the “visual novel” genre, a more realistic type of adventure whose aim is to simulate real life and love stories), it should suffice to browse Western (especially Italian) game stores to notice that that kind of games is not quite spread in the same fashion; players who want to try them usually have to buy them from online Japanese stores, which

can also require high importation taxes to be paid – although, as mentioned, some “niche” titles are slowly been introduced in digital stores.

In conclusion, while there definitely are Japan-developed games that have earned themselves a great name in other countries, it is unquestionable that a great portion of those games has never seen foreign stores, which may mainly be due, as emerges from the surveys, to different players’ tastes – players who want to try that kind of experience still are a minority. Nintendo’s hardware and software can overall be said to have been influenced by this same trend, especially by the Japanese mindset mentioned in 3.4; their working routine, profoundly different from the Western one, may be said to unwillingly influence players’ choice of consoles, shifting their interest on handhelds that can be brought and played everywhere. The design and idea behind Nintendo Switch, mentioned time and again throughout this thesis, may be seen as a practical response to both this lifestyle and the Western one, allowing users to either play “on-the-go” or dock the console at home and play it on a TV screen; also, Switch has gained great benefit from a deeply improved graphic engine, that allows the device to run games (portings) originally meant for high resolution consoles like Sony’s PlayStation or Microsoft’s XBox – unquestionably an important improvement, provided that the low variety of games previously available for Nintendo home (and handheld) consoles has always been an important issue that reduced the amount of potential buyers. This is somewhat confirmed by examining Europe and USA’s top sold games in 2017 (provided from the website VChartz), where three Nintendo Switch games are featured – *Mario Kart 8*, *Super Mario Odyssey* and *The Legend of Zelda: Breath of the Wild*, all three developed by Nintendo themselves; also, the US chart features *Pokémon Ultra Sun/Ultra Moon*, the latest Nintendo installment for the Pokémon series. A comparison of charts relative to the years 2016 and 2017 immediately reveals an increased presence on the Western market for Nintendo, although the Japanese game panorama is still exclusively marked by the presence of own developers – a trend that doesn’t undergo any deep changes up to the 100th position in the same chart, while the European and US ones appear at a first glance somewhat more balanced in regards to the presence of Western- and Japanese-developed games. Overall, while the numerous sources

seem to point out that Galapagos effect could be having an influence on the videogame market, then, a simple look at the 2017 sales from *VGChartz* should suffice to understand that Nintendo has finally thought of a way to escape the phenomenon, at least as long as their competences let them.

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2007

2014

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2017

Square Enix:

2010

2015

2016

Bandai Namco:

2016

Glossary

AUGMENTED REALITY (AR) GAMES (1.6): a kind of games that use real world maps as setting, compelling players to walk around in the real world in order to complete specific pre-established tasks.

CUTSCENE (1.2): a brief non-interactive scene narrating certain parts of a game.

DOWNLOADABLE CONTENT (DLC): extra content for certain games, that can be bought on online stores for a pre-established amount of money.

EXPERIENCE POINTS (usually *EXP*): points gained by a character that are automatically assigned and enable gaining levels.

FIRST-PERSON SHOOTING (FPS) GAME: a gaming genre in first-person view, whose themes are usually war or battle with weapons.

HANAFUDA (1.2): a Japanese type of gaming cards used for a number of games (which are, in turn, also referred to as Hanafuda).

LEARNING CURVE: (here) indicates the ease of learning a game's basics for a player, or in other words how fast he/she can learn how to play a game.

MIDWARE: any kind of technology that stands in-between the user and the final result of an action he prompted to a computer.

NEW GAME PLUS (or NEWGAME+): a game mechanic peculiar to Japan, enabling the player to restart a game from zero with a higher difficulty, also keeping the in-game items and experience earned

in the previous iterations of the game (*runs*, see below).

NON-PLAYABLE CHARACTERS (or NPCs): any kind of character that can't be controlled by the user.

OPEN-WORLD GAMES (1.4) (also FREE ROAMING or SANDBOX): a type of game where, instead of scripting a determined route that the player will follow, the developer provides users a huge gaming world that can be freely explored and interacted with.

OSCILLOSCOPE: a device capable that can detect movement, usually employed in other pieces of technology (e.g. mobile phones or controllers).

PORING: a subsequent version of a game developed for consoles other than the one it had originally thought for.

SHAREWARE: distributing briefer versions, or *demos*, of games already available in stores as a way of helping the buyer decide whether to purchase the full version.

QUICK TIME EVENTS (QTE) (1.4): moments peculiar to certain games where the player is displayed several commands and has to press them within a very short lapse of time, creating an engaging gaming experience.

REMASTER (1.6): a game is said to have been “remastered” when its graphics have been polished and improved for use on latest-generation consoles (the game was originally released on old platforms).

REMAKE (1.6): a “remake” is a special kind of remastered game, that has not only been graphically improved but also had some new elements added to its story/gameplay etc.

ROLE-PLAYING GAMES (RPGs): a gaming genre, providing the player with a wide choice of “races”/“jobs” for his character – that can also be physically designed to the player’s will. Typically a Japanese genre, it has also captured a fanbase in foreign countries; RPGs usually provide the player a challenging experience, often combining it with touching plots and character relationships, fantasy worlds and freedom of deciding how and when to follow the main plot.

- *MASS MULTIMEDIA ONLINE ROLE-PLAYING GAMES (MMORPG)*: a kind of RPGs that can only be played with an internet connection, and that gathers together players from all over the world.

RUN (OF A GAME): basically, a *run* is a single iteration of a game, from beginning to end.

STATISTIC (OR STAT) POINTS: a different kind of experience points peculiar to RPGs, gained through levelling up in certain games, that let the player improve his characters’ statistics like *dexterity*, *strength* or *intellect*.

STORED-PROGRAM ARCHITECTURE (OR STORED-PROGRAM COMPUTER) (1.1): a computer that stores program data and instruction data in the same space, thus creating a faster and more powerful machine.

TEXT-BASED GAMES (1.2): a certain type of games – usually peculiar to computers – that doesn’t provide graphic feedback other than a text, through which everything in the game develops (narration, exploration, fight etc).

Games mentioned

For a list of abbreviations, refer to the following section.

In case of portings/remakes/remastered versions (e.g. *Breakout*), date for the original version is indicated.

In case of distribution by different agents for different countries, only the original distributor [country] is indicated (see *Defender*); in case distribution defers between countries, the year of first distribution will only be indicated (see *Demon's Souls*). In case distribution has been made by a different company than the developer, they will be indicated in the order developer/publisher.

“Mobile” indicates that the game has been release for all mobile phones OS (iOS, Android, Windows Phone); PC indicates the game is available for all PC OSs (Windows/OSX/Linux).

Adventure (Atari Inc., 1977. Atari 2600)

Akalabeth: World of Doom (R. Garriot/California Pacific Computer Co., 1980-81. Apple II)

Angry Birds (Rovio Mobile/Apple, 2009. iOS)

Assassin's Creed (Ubisoft)

Assassin's Creed III (2012, PS3/X360)

Assassin's Creed: Origins (2017, PS4/XOne)

Asteroids (Atari Inc., 1979. Arcade)

Battlefield I (EA, 2016. Win/PS4/XOne)

Battlezone (Atari Inc., 1980. Arcade)

Breakout (Atari Inc., 1976. Arcade)

Call of Duty/CoD (Infinity Ward/Activision Blizzard)

CoD: Black Ops 3 (2015, Win/PS3, PS4/X360, XOne)

CoD: Infinite Warfare (2016, Win/PS4/XOne)

Colossal Cave Adventure (Will Crowther, 1976. PC)

Computer Space (Bushner, Dabney/Nutting Associates, 1971. Arcade)

Crash Bandicoot series (sev. dev., 1996-ongoing. PlayStation ex.)

Cuphead (Studio MHDR, 2017. Win/XOne)

Dance Dance Revolution/DDR (Konami/sev. pub., 1998. Arcade)

Defender (Williams Electronics [US], 1981. Arcade)

Demon's Souls (From Software/SCEE [Jap], 2009. PS3)

Disney's Hercules Action Game (1997 [NA])

Win: Eurocom/Disney Interactive

PlayStation consoles: Eurocom/Virgin Interactive, SCEE

GameBoy: Tiertex Design Studios/THQ

DmC – Devil May Cry (Ninja Theory/Capcom, 2013 – Win/PS3, PS4/X360, XOne)

Donkey Kong (Nintendo/Nintendo, Atari, 1981. Arcade)

Dragon Quest Monster Joker 3 (Tose/Square Enix, 2016. N3DS)

Dungeons and Dragons/DND (G. Gygax, D. Arneson/ TSR, Wizards of the Coast, 1975. Tabletop)

EyeToy Play (SCE, 2003. PS2)

Fallout (Interplay Productions, 1997. Win)

Far Cry Primal (Ubisoft, 2016. Win/PS4/XOne)

FarmVille (Zynga, 2009. Win [Facebook])

FarmVille 2 (Zynga, 2014. Win/Mobile)

FIFA 2017 (EA Sports, 2016. Win/PS3, PS4/X360, XOne)

Final Fantasy

Dissidia Final Fantasy (PSP)

Dissidia FF Opera Omnia (Mobile)

Dissidia FF NT (PS4)

Final Fantasy VII (PS)

Final Fantasy XII (PS2)

Final Fantasy XII: The Zodiac Age (PS4)

Final Fantasy Tactics (PS)

Final Fantasy Type-0 (PSV)

Mobius Final Fantasy (PC/Mobile)

Theatrhythm Final Fantasy (N3DS)

Galaga (Namco/Namco, Midway Games, 1981. Arcade)

Gears of War 4 (The Coalition/Microsoft Studios, 2016. Win/XOne)

Gee Bee (Namco, 1978. Arcade)

Goat Simulator (Coffee Stain Studios, 2014. PC/Mobile/PS3, PS4/X360, XOne)

Grand Theft Auto (GTA) V (Rockstar Games, 2013. Win/PS3, PS4/X360, XOne)

Guitar Hero series (sev. dev./RedOctane 2005-09, Activision 2006. PS2)

Halo: Combat Evolved (Bungie/Microsoft Game Studios, 2001. Win/Mac/XBox consoles)

HayDay (Supercell, 2012. Mobile)

Home Pong (Alcorn, Lee/Atari, 1976. Stand-alone console)

Kingdom Hearts (Square Enix, 2002. PlayStation ex.)

Kirby: Planet Robobot (HAL Laboratory/Nintendo, 2016. N3DS)

Lady Bug (Universal, 1981. Arcade)

Madden NFL 2017 (EA Sports, 2016. PS3, PS4/X360, XOne)

Mafia III (Hangar 13/2K Games, 2016. Win/Mac/PS4/XOne)

Minecraft PlayStation Vita Edition (Mojang/SCE, 2011. PSV)

Missile Command (D. Theurer/Atari, 1980. Arcade)

NBA 2K17 (Visual Concepts/2K Sports, 2016. Win/Mobile/ PS3, PS4/X360, XOne)

PacMan (Namco/Namco [JP], 1980. Arcade)

Pengo (Coreland/Sega, 1982. Arcade)

Persona saga (Atlus)

Digital Devil Story: Megami Tensei (1987, Famicom)

Digital Devil Story: Megami Tensei II (1990, Famicom)

Shin Megami Tensei (1992, Super Famicom)

Shin Megami Tensei III: Nocturne (2003, PS2)

Shin Megami Tensei IV (2013, N3DS)

Shin Megami Tensei – Strange Journey (2010, NDS)

Jack Bros. (1995, Virtual Boy)

Megami Ibunroku: Persona [US: *Revelations: Persona*] (1996, PS)

Persona 2: Innocent Sin (1994, PS)

Persona 5 (2016, PS4)

Pokémon series (Game Freak/Nintendo)

Pokémon Red/Blue versions (1996, GB)

Pokémon Green version (1996, GB)

Pokémon Yellow version (1998, GB)

Pokémon Sun/Moon versions (2016, N3DS)

Pokémon Go (2016, Mobile)

Pokémon Mystery Dungeon (2005, GBA)

Pong (Atari, 1972. Arcade)

Pro Evolution Soccer [PES] (Konami, 2001. PlayStation consoles)

Puzzle Bobble (Taito, 1994. Arcade)

*Q*bert* (Gottlieb/sev. pub., 1982. Arcade)

SimCity (Maxis, 1989.)

(The) Sims (Maxis/EA, 2000. PC)

Snake (1998, Nokia mobiles)

Sonic the Hedgehog (Sonic Team/Sega, 1991. Sega Genesis)

Space Invaders (Taito, 1978. Arcade)

Spacewar! (S. Russell, 1962. PDP-1)

Speed Race

Spyro the Dragon (Insomniac Games/SCE, 1998. PS)

Street Fighter II (Capcom, 1987. Arcade)

Super Mario series (Nintendo)

Super Mario 64 (1996, N64)

Super Mario Bros. (1985, Famicom)

Super Mario Maker (2015, Wii U)

Tekken (Namco, 1994. Arcade)

Tempest (Atari, 1981. Arcade)

Tom Clancy's The Division (Massive Entertainment/Ubisoft, 2016. Win/PS4/XOne)

Ultima (R. Garriott/California Pacific Computer Co., 1981. Apple II)

Uncharted 4 (Naughty Dog/SCE, 2016. PS4 ex.)

Undertale (Toby Fox, 2015. PC)

Virtua Fighter (Sega, 1993. Arcade)

Warcraft: Orcs & Humans (Blizzard Entertainment, 1993. PC)

Western Gun [US: *Gun Fight*] (Taito [Jap], 1975. Arcade)

Wheels [US: *Speed Race*] (Taito, 1974.)

Yokai Watch series (Level-5/Level-5, Nintendo. 3DS)

Yokai Watch 3: Sushi/Tempura versions (2016)

Yokai Watch: Sukiyaki version (2016)

Yokai Sangokushi (2016)

Abbreviations

ex. – exclusive (in Games mentioned)

FF – Final Fantasy

GUI – Graphic User Interface.

Mac – Macintosh

NDS – Nintendo DS

N3DS – Nintendo 3DS

OS(s) – operative system(s)

PS – PlayStation (this indicates the first version of the consoles. “PlayStation consoles” indicates that a game/series is available on all versions)

PSP – PlayStation Portable

PSV – PlayStation Vita

SCE – Sony Computer Entertainment

SCEE – Sony Computer Entertainment Europe

SE – Square Enix

sev. dev. – several developers (in Games mentioned, in issues where a game has more than two developers)

sev. pub. – several publishers (especially when a game has been adapted by various companies – see DDR)

Win – Windows

XOne – XBox One

X360 – XBox 360

