Exhibiting the Past

Yifan Cai

1004111917

CCT270

2022/11/06

Exhibiting the Past

Introduction

Significant effort has been invested in the growth of the gaming business to guarantee that it provides consumers with the finest possible experience. The initial console was introduced in 1972 and featured a black-and-white color scheme (Stuart, 2020). The device lacked any ports, and its games consisted of dots and lines. Between the first and sixth generations of game consoles, the gaming industry was shaped. Significant advancements were made at this time, as evidenced by the distinctions between the Magnavox Odyssey and the Play Station (PS) 2. Thus, while the Magnavox Odyssey could only play games with lines and dots, the Sony PS 2 is capable of playing a variety of games with superior visuals.

Sega, Nintendo, Sony, Microsoft, and Magnavox are the primary firms that pioneered and developed gaming, with Magnavox being the company that introduced the world to gaming (Coughlin, 2020). Despite its black-and-white visuals, the Magnavox Odyssey was a revolutionary system that paved the way for these other manufacturers. Therefore, several businesses designed their consoles based on the Magnavox Odyssey plan.

Competition was the primary driver of gaming innovation. Throughout the year, gaming console manufacturers had to propose fresh concepts to attract consumers (Stuart, 2020). The Sega Dreamcast gaming console, for instance, was the first of sixth-generation consoles and set the standard for sixth-generation console features, such as high-definition videos and optical disks. In order to entice consumers, gaming consoles have to be smaller and have higher resolution. Additionally, they had more distinct game titles to increase consumer recognition. Thus, rivalry was the primary impetus for gaming industry advancements.

Eventually, game makers stopped offering copyright. Thus, sales of Sega Genesis soared mostly due to the success of Sonic the Hedgehog games ("Sega Mega Drive Mini", 2019). The game's popularity allowed Sega Genesis to obtain the production rights. It was a huge shift in the gaming business when firms realized the importance of designing games for their systems. In addition, technological advances enabled firms to collaborate on the development of consoles (Frauenfelder & Bates, 2019). Understanding the evolution of game console businesses and games between the first and sixth generations highlights the significance of technological innovation and its role in the gaming industry.

Artifacts

Magnavox Odyssey

The Magnavox Odyssey was the first ever video game console. It was initially released in the United States in 1972, while other nations received it in 1973. (Coughlin, 2020). The console consisted of a box connected to a television and wired with many controllers. The console displayed a single line and square black and white dots of varying heights. The console was incapable of producing sound or storing data. Its packaging included paper money, dice, and other game-related components (Coughlin, 2020). In addition, the console had a controller that was sold separately. Despite its limited functionality and simplicity compared to consoles of previous generations, the Magnavox Odyssey ushered in a new era for the gaming industry.

Figure 1

Magnavox Odyssey

(Retrieved from

https://www.theguardian.com/games/2020/jul/16/the-25-greatest-video-game-consoles-ranked).

Super Nintendo Entertainment System (SNES)

The SNES was possibly the best console Nintendo launched in 1990. (Jeff, n.d.). One year after its debut in South Korea and Japan, the console became accessible in North America (Jeff, n.d.). It was sixteen-bit video game hardware that had multiple names in various nations. For instance, the Japanese referred to it as the super Famicom (Jeff, n.d.). This model represented an update to the original Nintendo game console. It had graphics that many at the time regarded as innovative. Moreover, at the time, none of the other systems had a sound like the SNES (Jeff, n.d.). In addition, Nintendo designers recognized that the game business was evolving and that more cartridges were required to maintain competitiveness. In order to improve the overall performance of the cartridges, they incorporated a variety of enhancement components and 3D effects. It received favorable reviews despite heavy competition from the Genesis console (Jeff, n.d.). This console's innovation keeps it still relevant, since many users consider it to be the best console for retro gaming. Numerous assessments assert that Super Mario World, Super Metroid, and Earthbound are now "classics" (Jeff, n.d.). It is still one of the top gaming consoles, as evidenced by its high price of $190 on Amazon (Jeff, n.d.). The high price indicates the SNES's continued relevance in the present day.

Figure 2

Super Nintendo Entertainment System

 (Retrieved from https://scf.usc.edu/~jeffcui/itp104/final/snes.html).

Sega Mega Drive

This Sega-developed system utilized a sixteen-bit architecture. The console was officially

released in 1988 and was deemed the best console at the time due to its video platform that

supported hardware tiles, scrolling, and sprites. In addition, it was capable of storing over 900

games on its cartridges, providing gamers with the best gaming experience ("Sega Mega Drive

Mini", 2019). Due to the console's immense popularity, the firm launched many add-ons to keep

it competitive. Before the advent of SNES, the game console dominated the market. After its first

debut, the Sega mega drive had to adopt more strategies to remain competitive. By cooperating

with several gaming firms and incorporating innovation, the system was able to use a variety of

games. In addition, this was a crucial step in the evolution of the gaming industry because it

allowed other firms to build games for the Sega mega drive. Therefore, Sega mega drive

concentrated on improving its hardware and software to increase compatibility with games made

by other companies ("Sega Mega Drive Mini", 2019). Electronic Arts (EA) signed a deal with

Sega allowing them to rebuild the gaming system using a technique similar to that of Phoenix

technologies ("Sega Mega Drive Mini", 2019). They released their first games, including

Populous and Martial Spirit, as a result of their collaboration. Unfortunately, the games failed to attract a large audience, which led to the debut of Sonic the Hedgehog, a smash hit in North America. Due to the Mega Drive's popularity, it was able to gain an advantage over the SNES.

Figure 3

Sega Mega Drive

 (Retrieved from https://megadrivemini.sega.com/)

Famicom

Famicom is a console of the third generation that introduced innovative video displays to the game industry. This gaming system was developed by Nintendo to operate on an eight-bit platform (The Editors of Encyclopaedia Britannica, 2011). Early and mid-1980s eight-bit video systems were a significant breakthrough, allowing the console to sell numerous units (The Editors of Encyclopdia Britannica, 2011). Moreover, this console was instrumental in resolving the video game failure of 1983, allowing for a huge change in the gaming business (The Editors of Encyclopdia Britannica, 2011). Metroid and Super Mario Bros. were two of the top Famicom games. These games were incredibly profitable, allowing them to establish franchises that continue to sell to this day. Its gaming and video platform resolved the challenges that many

players encountered when playing. These difficulties included consoles overheating and video interruptions while in use.

Due to competition with Atari 2600, Famicom revolutionized the game business significantly. Officials of the consoles sought to ensure that the console remained the best of all time by incorporating an 8-bit system and sophisticated video platforms. Therefore, they incorporated a Picture Processing Unit (PPU) inside the console and re-distributed the consoles (The Editors of Encyclopdia Britannica, 2011). The addition of the PPU improved the console's graphics, allowing users to get immersed in the gaming environment. It was a peculiar circumstance that allowed the consoles to sell in large quantities at the time. The Famicom was Nintendo's first console, and it was a huge success (The Editors of Encyclopdia Britannica, 2011). Nintendo would be able to incorporate more improvements and innovations and offer better gaming systems as a result of subsequent productions. Prior to further manufacturing, its primary objective was to upgrade its video platform from eight bits to sixteen bits. As a result, the SNES was released.

Figure 4

Famicom

 (Retrieved from

).

Sega Dreamcast

The Sega Dreamcast ushered in the sixth generation of video game consoles. In 1998, Sega officially introduced this console (Greenbaum, 2022). In addition, the system was the first in its category of sixth-generation game consoles. Despite being a pioneer in the development of sixth-generation consoles, the business ceased operations in 2001. (Greenbaum, 2022). The fact that the company had been in the console business for eighteen years was a monumental achievement. This console's significant evolution was the reduction of other components. Before the sixth generation, several game consoles required additional equipment to function properly. The Sega Dreamcast lacked features such as the Hitachi SH-4, allowing buyers to purchase it at a reduced cost.

Although it was the first console of the sixth generation, it fell short of expectations. This circumstance arose as a result of widespread anticipation for Sony's PlayStation. It is comprehensible why the console did not meet its specific requirements. In spite of this, critics claim that the console was exceptional and a console of the future. Its games were highly inventive and user-interactive. Among them were Crazy Taxi, Shenmue, and Jet Set Radio (Greenbaum, 2022). In addition to being an unusual feature, the console's ports were also novel. Unique ports on its arcade system's platform improved game performance. Its integrated modem enabled online access, allowing users to remotely compete against others. Many deemed it a console for the future because it was the first console to have this function. Due to the enhanced interactivity, its online access and unique games make it perhaps the best video experience for

players. At the time, it was an impossible condition, yet the system overcame it, making it one of the best consoles of all time.

Figure 5

Sega Dreamcast

(Retrieved from https://www.denofgeek.com/games/last-sega-dreamcast-game-ever-released/).

Nintendo 64

SNES's successor, Nintendo 64, had superior features to SNES. 1996 saw its official release in Japan (The Editors of Encyclopaedia Britannica, 2011). In addition, the console was the final piece of equipment to utilize cartridges for information storage. Its key characteristics included a 64-bit video platform, which allowed it to support 3D graphics. The system included games such as Super Mario 64 and Pilotwings (Encyclopdia Britannica Editors, 2011). The games' 3D effects allowed players to immerse themselves deeply in the gaming environment. This console's expansion pack was another distinguishing characteristic. The system's memory was increased from four megabytes (MB) to eight megabytes (MB) to accommodate the higher memory requirements of some of the games it featured (The Editors of Encyclopdia Britannica, 2011). It enabled consumers to feel the gaming experience more intimately due to enhanced graphics and performance.

In addition, the console incorporated the ability to save games, meaning that games could be kept on cartridges or the controller Pak. The Pak enabled users with limited capacity to retain their games, ensuring that consumers do not lose their games (The Editors of Encyclopdia Britannica, 2011). Due to the fact that many systems did not allow users to store games on external devices, this was a big improvement. Therefore, users could resume their games from where they left off, resulting in an enhanced gaming experience. Since the Nintendo 64 was a substantial upgrade over the Super Nintendo Entertainment System, Nintendo cooperated with Philipps to release compact disks (CDs) for its games. It was the console's tremendous advancement that earned it a unique position in the gaming business.

Figure 6

Nintendo 64

(Retrieved from https://www.britannica.com/technology/Nintendo-console).

Nintendo GameCube

This machine was the successor to the Nintendo 64, and there were high hopes that it would compete with Sony's PlayStation. Official release occurred in 2001. (Frauenfelder & Bates, 2019). In addition, the console's finest games included Animal Crossing, Pikmin, and

Metroid Prime (Frauenfelder & Bates, 2019). ArtX, a company that specializes in computer graphics, made its building possible. The gaming equipment also introduced to the market ideal disks. This extraordinary action by Nintendo demonstrated its expansion within the gaming business. Initially, the company's consoles utilized Read Only Memory (ROM) cartridges (Frauenfelder & Bates, 2019). The cartridges had memory sticks for game saving. Despite the console's innovation, it had one significant concern. It offered online gaming, but only certain games.

Although the situation was not ideal, consumers adored the console because it offered novel features at reasonable pricing. The GameCube was equipped with a modem that allowed users to connect to the internet (Frauenfelder & Bates, 2019). Users could also connect it to a Game Boy Advance using a link connection. As a result, users have access to unique capabilities, such as the ability to use the handheld as a controller or an extra screen. Another characteristic of the system is that it utilizes e-Reader cards to unlock specific game components (Frauenfelder & Bates, 2019). These unlocked features increased the console's appeal by incentivizing players to complete particular tasks while using it. The combination of internet gaming with the Game Boy experience created a fascinating experience that allowed users to establish goals while playing online games. Its graphics gave its games a high level of quality, enabling players to view characters clearly and relate to them correctly.

Figure 7

Nintendo GameCube

(Retrieved from

https://www.theguardian.com/games/2020/jul/16/the-25-greatest-video-game-consoles-ranked).

SNK Neo Geo

This console was a pioneer in transforming the gaming industry into a massive enterprise

for entrepreneurs. It was released officially in 1990 and was a fourth-generation console (Yadav

et al., 2019). It was the first system to utilize a twenty-four-bit video platform (Yadav et al.,

2019). Each cabinet could accommodate up to six cartridges. The first console was primarily

intended for companies, so it was a large device that required pretty ample space because it

included a screen. All of its games were contained in cartridges, allowing users to swap

cartridges for different games. After the corporate version was created, a home version followed.

The release of the home version was prompted by the overwhelming demand for the original

version (Yadav et al., 2019). Due to the popularity of the original model, which led to increased

sales, it was deemed reasonable to manufacture a home version. The console was robust at the

time due to its superior video performance. Its popularity was largely because to its various

cartridge placements, relatively inexpensive prices, and compact dimensions.

World Heroes, Fatal Fury, Metal Slug, and Samurai Showdown are games that

contributed to the console's success. Despite its expensive cost, the console continues to be

popular, with many gamers considering it a collector (Yadav et al., 2019). The majority of the

console's titles came from its own firm, hence it did not work with other companies like EA.

Despite the cessation of software manufacturing in 2004, games such as Fatal Fury continue to

sell in a limited number of retailers. Unique games that utilized high-resolution graphics

contributed to the console's reputation as one of the greatest.

Figure 8

SNK Neo Geo

(Retrieved from

https://www.theguardian.com/games/2020/jul/16/the-25-greatest-video-game-consoles-ranked).

PS 2

Between the first and sixth generations, the PS 2 was perhaps the most successful game

console. It was released officially in 2000. ("PS2", n.d.). Sony produced and marketed the PS 2,

which was the successor to the PS. GameCube and Xbox were this console's primary competitors

("PS2", n.d.). Despite this, the console sold more units than any other console. Statistics indicate

that more than 155 million units were sold worldwide ("PS2", n.d.). Sony launched more than

4000 distinct types of games for the gadget after its first release ("PS2", n.d.). The device's tiny

disk compartment contributed to its immense popularity. At the time, compact disks were the

most common form of data storage, and the console's flexibility in game storage contributed to

its immense popularity.

Sony released a lighter version of the PS 2 in response to its enormous success, resulting in the PS 2 Slim. PS 2's global appeal allowed it to remain relevant even after Sony developed PS 3. ("PS2", n.d.). Its production ceased in 2013, after twelve years of production. This was the longest span for any console, making the PS 2 perhaps the best console. In addition, the console supported memory cards with capacities of up to eight megabytes. Additional improvements enabled memory cards with greater storage capabilities. The video quality of the majority of its games is 480p, however few titles offer 1080p resolution ("PS2", n.d.). Due to its increased resolution, 1080p resolution provides a highly crisp image. Other elements that made it exceptional were online play and the ability to play a variety of games.

Figure 10

PlayStation 2

(Retrieved from

https://www.pcmag.com/encyclopedia/term/ps2#:~:text=(2)%20(PlayStation%202),compatibility%20with%20the%20earlier%20PlayStation.).

Xbox

Xbox had outstanding gaming features, making it an instant market seller. It was released in the United States in 2001. ("Xbox", n.d.). In addition, the system was the first American console produced since Atari halted console manufacture in 1996. ("Xbox", n.d.). Its primary opponent was the PlayStation 2, as both were sixth-generation consoles. With or without an internet connection, gamers could engage in online play on this system, which was a unique quality. Its success was primarily due to Halo 2, which became Xbox's most popular game ("Xbox", n.d.). Xbox's improved servers have greatly enhanced online play, making it one of the greatest platforms. The console had enhanced audio, including Dolby audio, and a resolution of up to 1080p. This circumstance enhanced the Halo 2 game's gameplay experience.

Figure 11

Xbox

 (Retrieved from https://www.techopedia.com/definition/17019/xbox).

Summary Page

Exhibit Title

Exploring the Past

Exhibit Topic

First to Sixth Generation Gaming Consoles and Games

URL:

https://cfy460.wixsite.com/exhibiting-the-past

Question the Exhibit Answers

How did the game companies and games evolve between the first and sixth generations?

Thesis

Therefore, understanding how game console companies and games evolved between the first and sixth generations allows the appreciation of technological innovation and its value to today's gaming industry.

Exhibition's Breakdown

The exhibition focuses on game console companies. It also focuses on the games of each console between the first and sixth generations. Numerous gaming consoles were established between the first and sixth generations, starting from the Magnavox Odyssey to the Xbox. Factors like innovation and competition were pivotal in understanding why game ownership changed and why more companies began producing games alone. Lastly, understanding what it meant for companies to collaborate with other game manufacturers was also necessary for addressing the game ownership situation.

Exhibit Audience

My imagined audience is generalists. I am developing this exhibit for them by ensuring that I use more straightforward language. I also ensured that I explained gaming vocabulary to ensure they followed the exhibit's intended information.

Collaboration

Because of my diverse knowledge in the gaming industry, I captured the artifacts by myself.

Conclusion

Lastly, many initiatives have been seen in the gaming sector since Magnavox built the first game machine, the Magnavox Odyssey, in 1972. No ports were available, and the graphics were not particularly sharp, but it served its job well enough to keep players entertained. Since then, more progress in technology has allowed the creation of a plethora of video game systems like the Famicom, Super Nintendo Entertainment System, PlayStation 2, and Xbox. Each new system was an improvement over the preceding generation, demonstrating the profound effect technology has had in reshaping the video game market. Game ownership policies have evolved separately from consoles. As a result, many console manufacturers now include their games with their products. This is especially true for those that aim to increase sales. One of their tactics is copyrighting games, as in the case of Xbox's Halo. Due to the rapid development of new technologies, the gaming industry is sure to undergo further changes in the near future.

References

Coughlin, T. (2020). Gaming consoles go solid state. *IEEE Consumer Electronics Magazine*, *9*(5), 55–56. https://doi.org/10.1109/mce.2020.2990862

Frauenfelder, M. & Bates, R. (2019). The world of raspberry pi retro gaming. In *Raspberry Pi Retro Gaming*, (pp.1–23). Apress,. https://doi.org/10.1007/978-1-4842-5153-9_1

Greenbaum, A. (2022, September 12). *What was the last Sega Dreamcast game ever released?* Den of Geek.

https://www.denofgeek.com/games/last-sega-dreamcast-game-ever-released/

Jeff, C. (n.d.). *Super Nintendo entertainment system (SNES) || 1991-1996*. SNES.

http://scf.usc.edu/~jeffcui/itp104/final/snes.html

PS2. (n.d.). *PCMAG*. Retrieved October 27, 2022, from

https://www.pcmag.com/encyclopedia/term/ps2#:~:text=(2)%20(PlayStation%202),comp atibility%20with%20the%20earlier%20PlayStation

Sega Mega Drive Mini. (2019, October 4). SEGA Mega Drive Mini.

https://megadrivemini.sega.com/

Stuart, K. (2020, July 16). The 25 greatest video game consoles – ranked! *The Guardian*.

https://www.theguardian.com/games/2020/jul/16/the-25-greatest-video-game-consoles-ra nked

The Editors of Encyclopædia Britannica. (2011, August 18). *Nintendo console*. In Encyclopædia Britannica. Retrieved October 28, 2022, from

https://www.britannica.com/technology/Nintendo-console

Xbox. (n.d.). Techopedia. https://www.techopedia.com/definition/17019/xbox

Yadav, D., Long, D., Morkos, B. & Ferguson, S. (2019, August 18-21). *Estimating the value of excess: A case study of gaming computers, consoles, and the video game industry.* Volume 2A: 45th Design Automation Conference.

https://doi.org/10.1115/detc2019-98428