Nitin Chopra
Assignment 2: Case History

"Super Mario Bros. Heritage"

1. Topic Identification

I have chosen to do my case history on the evolution of Nintendo's "Super Mario Bros." dynasty because I believe that, collectively, they have played a most significant role in the evolution of game design; through technological advancement, cultural sensitivity, and business savvy Nintendo has created a legacy in Mario.

When I speak of the Super Mario Bros. dynasty, I am referring only to the following three games released for the Nintendo Entertainment System (NES). All were developed and published by Nintendo:

1985 – *Super Mario Bros.*, Nintendo Entertainment System (NES)
1988 – *Super Mario Bros. 2*, NES
1989 – *Super Mario Bros. 3*, NES

Obviously, I have left out many Mario games. In addition to the aforementioned, Mario boasts over 60 titles with which he is associated across the NES, Super NES, N64, Game Boy and Game Boy Color platforms. I have chosen these three games because they comprise the cornerstone on which Mario's overwhelming popularity was founded.

Having clearly identified which games I will focus on, let me expound for a moment on the creative genius that is responsible for these games. Nintendo is responsible for this suite of Mario games and all its derivatives. A century-old Japanese establishment that started out as a card-making business, Nintendo has evolved over the past hundred years from a tiny card manufacturer to a massive video game powerhouse. The story of how Nintendo evolved from cards to Mario—and from Japan to the United States—is a fascinating story furthered by technological, cultural, and business factors.

Of course, I would be remiss if I were to mention the growth of Nintendo without identifying the impetus behind their evolution. Hiroshi Yamauchi, famed President of Nintendo from the beginning of it's hypergrowth until just last year, has overseen Nintendo and contributed without equal to its successes. Yamauchi had a most interesting childhood, rebelling from both his father and grandfather to lead a life of adventure, seeking work wherever he could. Yamauchi's escapades were cut short, however, when in the course of a few years time he was given the news that his father—with whom he had not been in touch with for many years—had died and that his grandfather wanted Yamauchi to take over the family company—Nintendo (then just a card-making firm). This was a very significant event in Yamauchi's life, and the circumstances that brought Yamauchi to this top position affected the way in which he ran Nintendo.

The second name that I must mention is that of Shigeru Miyamoto, famed and respected game developer. Mario is 100% the brainchild of Miyamoto. If this were his only accomplishment, he would still be adored as one of the most influential figures in the gaming industry; as is were, though, Miyamoto is also responsible for such other smash hits such as the "Donkey Kong" and "The Legend of Zelda," two of the most revolutionary games in the industry. To what can one attribute Miyamoto's unparalleled genius? Miyamoto was not an engineer; he was, first and foremost, an artist. Being a skilled cartoonist, he organized a cartoon club at his school and created many fanciful worlds and stories, populating them with even more imaginative characters. Undeniably, Miyamoto's artistic background contributed to the ingeniousness of Mario. Steven Poole, author of <u>Trigger Happy</u>, says of Miyamoto's continuing position at the top of his field: "He's very unusual in that he's a game designer who started in the 1980s and is still at the cutting edge—20 years and he hasn't done a bad game. He's unique in that he is creative and visionary but has the technological skills to understand what he wants from the hardware."

By this point I hope that I have successfully accomplished two things: explained the topic for this paper and identified the company and a few people who played a significant role in its history.

2, 3, 4. Historical Narrative, Significance, and Factors

The story of Mario—the "historical narrative"—has been driven by three factors: technological, cultural, and business. In this section, I hope to trace the evolution of Mario and describe its game design process as governed by these three factors. Also, where appropriate I will point out the significance of these factors to computer game design. My research found that the actual *changes* in Mario games were the result of technological and business factors, while cultural factors helped to *maintain consistency* amongst the Mario series.

Super Mario Bros. (SMB)

Part 1: Low-cost system

The first Mario game that I have included in my case history is *SMB*, yet this was not the first game that the character Mario first appeared in. Mario's debut act was in Donkey Kong (another Miyamoto creation), four years before *SMB* was released. In that game, Mario was a carpenter—and his name wasn't even "Mario," it was "Jumpman." The transition from Jumpman the carpenter to Mario the plumber is where our story begins.

Nintendo President Yamauchi was aggressively trying to copy the success of the Japanese Famicom and break into the American video game market. Yamauchi realized that the success of any gaming platform rested in the quality of its games. Nintendo was not alone in the home entertainment system market, and in order to gain significant market share Yamauchi relied on a two-pronged business strategy: undercut his competitors by creating the lowest-cost console around, and then make money from the revenue of top-notch games. Simply put, Yamauchi's strategy was to have a low-cost system with high-quality games.

To his engineers, Yamauchi described his price target for the NES (appx. $75 US) and specifications for the console. These initial specifications had a profound influence on *SMB*. The **technological** context in which *SMB* was created affected its graphics, sound, and game play.

First, Mario graphically looks the way he does today because of the rudimentary graphics kit of 1981. Although Yamauchi originally toyed with the idea of having a 16-bit processor, the cost was simply too high and, thus, he opted for the 8-bit processor. Mario wears a hat simply because there weren't enough pixels to depict the movement of hairs while jumping—so Miyamoto covered the hair with a cap. Mario sports a moustache and big nose for similar reasons: the limited number of pixels made it difficult to sculpt facial expressions, so Miyamoto covered most of the face with just a moustache and nose. And, in order to see Mario's arms moving they needed to be a different color from his body; hence, red overalls.

Second, the soundtrack to *SMB*—though severely limited by the existing technology of the 8-bit system— was an instant classic. Credit goes to Koji Kondo for fashioning a catchy, quirky theme out of *just four full notes*. *SMB* was the first video game to feature constant background music written by a professional composer, establishing many conventions for game music which continue to persist. For example, Kondo created different background music for every area Mario visited. Outdoors, the music was peppy and cheerful; indoors, cautious and ominous; final castles, frantic!

Third, in spite of the 8-bit processor, Yamauchi's development team was able to revolutionize game play through the introduction of scrolling. *SMB* was the first video game to consist of more than one screen at a time!

The **significance** of these technological achievements to computer game design cannot be overstated. *SMB* popularized the idea of a soundtrack to a game; currently, scores from games like Final Fantasy are sold in record stores and performed live by orchestras. Also, the capability of scrolling is one that was repeated in hundreds and hundreds of future games.

Part 2: High-quality games

The second component to Yamauchi's knockout strategy was to generate revenue from high-quality games. To do this, he enlisted the help of game developer Miyamoto, who had just come off the back-to-back successes of Donkey Kong and its sequel (arcade games). As I mentioned earlier, Miyamoto was a creative and artistic genius, most capable of creating a #1 video game. The first thing he did to the old carpenter was change his name from Jumpman to "Mario" for the simple reason that Nintendo's warehouse manager—an Italian named Mario—happened to look like Jumpman. And instead of being a carpenter, Mario was now a plumber, since his overalls smacked of drain repair. This laid the foundation for the neon green pipes in *SMB* which are ubiquitous throughout *SMB*.

The rest, as they say, is history; Miyamoto's **cultural** influences helped shape the remaining elements of what would begin one of the most successful video game franchises ever. To design the *SMB* game, Miyamoto thought long and hard about his life as a child, growing up in a traditional Japanese family. Miyamoto believed that the most wonderful thing about his childhood was the adventure and curiosity with which he approached life. So for *SMB*, Miyamoto envisioned strange and adventurous worlds with even stranger enemies—turtles, mushrooms, plants, and fish. Said Miyamoto, "In the end, whether [a] game can become very good or not depends on the original concept, the spirit of the game designer." Thus Miyamoto put a lot of energy into designing a game that would be a lot of fun to play and have a high replay value. Chris Crawford discusses several issues that need to be addressed in designing a successful game; first, any good game must have a goal—expressed in terms of the effect that it will have on the player—and a topic. *SMB* delivers both with brilliant simplicity. The goal is worthy: instantly engage the player to make him feel as if he is in a fantasyland, an "everyman's" plumber trying to save a princess. And the topic is as fanciful as Miyamoto could envision.

The **significance** of this cultural influence in *SMB* is quite apparent, if you consider the non-violent tradition of the Japanese. Miyamoto could have created a game with guns and death and blood, but instead created a game with turtles and fireflowers. This whimsical spirit is at the core of everything Mario is about, and it continues to be at the heart of all other Mario games—both within and outside of the series.

Part 3: Business as usual?

One piece remains to the story of how *SMB* was created and how Nintendo began dominating the video game market—the aggressive **business** savvy of Nintendo President Hiroshi Yamauchi. The low-cost console, high-quality game strategy was simple enough, but how did Yamauchi ensure his model?

In order to get absolute rock-bottom chip prices for the Nintendo, Yamauchi took risks. Most firms simply balked at the paltry amounts Yamauchi was willing to pay—"too low, we'll never make any money" they spat. In order to secure an order of processors, Yamauchi struck a deal with *Ricoh*, promising them three million sales orders within two years—more than three times the amount Nintendo had ever sold of one product! Surely, Nintendo employees weren't sure what to think of Yamauchi's bravado. Had Nintendo not made good on this promise, they would have been in danger of going bankrupt! How could he have predicted such a strong demand for the NES?

Also, in order to get the best games, Yamauchi needed his programmers to be programming at their maximum potential. How could he do this? In marked contrast to traditional Japanese business culture, Yamauchi pitted his programmer's at each other, letting them compete for his praise instead of making them feel loyal to each other. Two things resulted from this policy: the employees of disliked Yamauchi, and two, they made *great* games for him (driven by the competition, presumably).

These types of risky, aggressive business policies were not characteristic of a Japanese firm. Why was Yamauchi inclined to act like this? At the risk of performing psychoanalysis, I might infer that his non-traditional childhood gave him a very different outlook on Nintendo. Although it was the family business, Yamauchi never had a real family life, spurning both his father and grandfather when he was young. Perhaps this made him more inclined to take risks with Nintendo? Perhaps it made him more willing to have his cousin fired (so he could be the only one in the family working at Nintendo) and to pit his workers against each other? Regardless of the answers to these questions, business factors most certainly influenced the success of the NES and it's flagship *SMB*.

Super Mario Bros. 2 (SMB2)

Part 1: Dumb Americans?

With the success of *SMB* in 1985, it was no surprise when Nintendo came out with a sequel in 1988. But *SMB2* was markedly different from its predecessor and all its future offspring. The reason? *SMB2* was originally the Japanese game "Dream Factory: Doki Doki Panic." Japan had a much different *SMB2*, which was esentially a harder version of *SMB*, complete with different levels and a few new enemies and items. Nintendo thought these games would not sell well in America because of their difficulty, and to release them would be a waste of time and money. I'm not sure if there is much more **cultural significance** here other than Nintendo greatly underestimated the enthusiasm and skill of gamers in America—when the Japanese *SMB2* was finally released in the US in 1992, it was very well received.

Part 2: License to $$

The most significant development that went along with *SMB2* was the aggressive policy of Nintendo to promote its Licensee program. This marked a **business** decision of Yamauchi's which sought to counter problems that other gaming companies had had in the past. After the success of *SMB*, there were many attempts to create cheap knock-off equivalents. Such games hurt Nintendo in two ways: they reduce the standard of excellence that people come to expect from Nintendo games in general, and they tarnish the Mario brand specifically. Atari faced a similar problem in Japan, except that they had allowed other companies to make games for their platform. When poor quality games were being overproduced, there was glut of bad Atari games on the market, driving down prices on *all* Atari games to as little as 10% of regular value.

The **significance** of the Licensee program is clear—it gave Nintendo a stranglehold on it the video game market. Because of the NES's growing popularity, everyone wanted to make games for the platform; but without the Nintendo Seal of Approval, a manufacturer wouldn't have a good chance of getting people to buy his game…and to get the Seal of Approval essentially meant relinquishing all control of a game to Nintendo. The game design process for Nintendo games was still in the hands of Nintendo, but now they could make a lot of money from the fruits of other companies' labor, with very little effort on their part. All because of good brand image and aggressive business policies.

Part 3: Music to my ears ☺

One noteworthy **technological** improvement in *SMB2* was an improvement in sound quality. The NES allowed three "voices" to be broadcast at once, but proper chords are composed of four notes. For *SMB2* composers figured out a way to assign one voice to play scales in rapid succession to give listeners the impression that they were hearing chords. Not only did this produce the desired chord, but it freed up the other two "voices" to play other things.

The **significance** of this improved sound quality had repercussions on all future NES games, greatly improving the listening experience for gamers.

Super Mario Bros. 3 (SMB3)

The most notable story for *SMB3* was the marketing. Yes, the technology also improved, and yes the graphics got better. But talk about excellent **business** sense! Nintendo promoted this game so well that it created a huge market for advertising video games—something that was not prevalent before *SMB3*.

Nintendo promoted *SMB3* in three distinct ways. First, they struck a deal with McDonald's to make *SMB3* Happy Meals. Second, they struck a deal with PepsiCo. to paste images of *SMB3* characters on the outside of Pepsi cans. And finally, in the most ingenious move of all, they made a 100-minute commercial for the game—and called it a movie. "The Wizard" was not so much a movie as it was an advertisement for the yet-to-be-released *SMB3*. After an hour of trivial plot progression, "The Wizard" revealed—for five minutes—snippets of what was touted as the hottest new game *ever*. Kids came out in droves to see this movie ($$$), and as they left the theaters they were already begging their parents to buy *SMB3* upon its release.

The strategy was a smashing success. *SMB3* went on to sell more copies than any other video game in history—7 million. In one year, pre-tax profits for Nintendo beat all of Hollywood in earned revenue. The **significance** for game design is obvious. Video games can be advertised. Characters can be franchised. Mario truly had brand value at this stage of the game. This has spawned a whole new world of video game advertising, both for Nintendo and other companies. Take, for example, the "Super Mario Bros. Super Show" on TV or the "Super Mario Bros." movie that came out in 1993 starring Dennis Hopper. Outside Nintendo, icons like Lara Croft are branded in such a way to create equity in an image.

5. Concluding Remarks

Through my research, I have found that technological, cultural, and business factors have all influenced the evolution of the Mario dynasty. Technical advances have allowed for greater depth to the games; cultural steadfastness helped maintain the same spirit of all the Mario games; and the biggest result of the Mario franchise (as sad as this might seems) appears to be it's influence on the **business** of video games. The branding of Mario has been so intense that it has virtually become a household name—most definitely so amongst gamers. Despite the initially disappointing sales of Nintendo's latest console, the N64, without the strong Mario brand name behind it, the system might have been a complete failure.

Yamauchi, Miyamoto, and Nintendo have combined to create a suite of games that have influenced millions of gamers, and many, many games. Through technological advancement, cultural sensitivity, and business savvy Nintendo has created a legacy in Mario.

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