



## THE PLUMBER AND THE HEDGEHOG:

### *A Case Study of Two Games that Defined the Epic Nintendo-Sega Rivalry*

They were the Beatles and Stones of the late 1980s and early 1990s. Nintendo was the Beatles: wholesome fun for all the family, with superior artistry but a slightly “safe” image; Sega, on the other hand, was the snarling, street-smart gang, roughing it up for the hardcore videogame fans. **-Steven Poole, Trigger Happy**

Before the battle between home videogame consoles was infiltrated by media and technology powerhouses, before the Playstation or the Xbox were the weapons of choice, before Lara Croft became a modern day Joan of Arc; two Japanese videogame titans locked horns during the latter 1980s and early 1990s in an epic fight that encompassed the world and left a multibillion dollar industry in its wake. The two camps, Nintendo Co. Ltd. and Sega Enterprises Ltd., respectively appointed icons to lead their fronts: a plumber named Mario and a hedgehog named Sonic. Through a mixture of technical, business, and cultural perspectives, this case study will give us insight into one of the most crucial points of the Nintendo-Sega War, documenting the events, decisions, and people involved with the release of Nintendo’s *Super Mario Bros. 3* and the subsequent release of Sega’s *Sonic the Hedgehog*. These two games not only defined a rivalry between Mario and Sonic as they competed for the leading character role in the videogame industry, they also helped to create a cultural divide and intensify the greater rivalry between the once mighty Sega and Nintendo camps.

## Background: A Healthy Nintendo and a Hungry Sega

In the twilight of the 1980s, it seemed Nintendo had emerged the victor of the console wars in Japan and the United States, two of the biggest markets in the world. The company had come a long way from its humble roots as a Japanese playing-card company over a century earlier as it debuted its Nintendo Entertainment System (NES) in the United States in 1985. At this time, Nintendo already had a 90% stake in the Japanese video game market with Japan's equivalent of the NES, the Family Computer (Famicom). A few years later Nintendo's stellar stock performance, employee benefits, and profits prompted the *Japan Economic Journal* to herald it as the number one company in Japan (Sheff, 171). By the end of the decade, this dominance expanded into the United States, with one third of all American homes owning a Nintendo Entertainment System (NES), accounting for over 30 million units sold (Sheff, 5). These figures were far more impressive than any of Nintendo's competitors and their game systems, including Sega and its more technologically advanced yet unpopular Master System.

What made the Nintendo's NES such a hit in the lucrative United States market? Was it the NES's eight-bit processor, sixteen-color display, and three-voice sound base? Technically advanced hardware was obviously not the selling point, as the failure of Sega's Master System (SMS) in the United States displayed. The Sega's SMS debuted in the U.S. in 1986, boasting better graphics, sound, and peripherals than Nintendo's NES. Though the Sega's SMS had such



Above: Sega Master System (SMS) with peripherals.

features as two types of cartridge entries and 3-D vision glasses, most of its games proved unappealing and unimaginative enough to draw already loyal U.S. fans from Nintendo's NES and the groundbreaking game that was packaged and compatible only with the NES, *Super Mario Bros. (SMB)*. In this game Nintendo had found its killer app<sup>1</sup>. *SMB*'s now legendary designer, Shigeru Miyamoto, had essentially introduced a new type of game that would revolutionize the industry for years to come – Miyamoto had created the side-scrolling platform genre.

*Super Mario Bros. (SMB)* starred Mario<sup>2</sup>, a plump mustachioed plumber wearing a red cap and overalls who had earlier debuted in the hit arcade game *Donkey Kong* as a carpenter aptly named Jumpman. Aside from defining the genre of the side-scrolling platform game, with *SMB* Miyamoto had created a character that players could relate to, personalize, and grow fond of. Arbitrarily named after an Italian warehouse manager at Nintendo who resembled the character, Mario appealed to the masses because like so many of us, he was just an 'average Joe.' As we played *SMB*, we internalized the character of Mario and he became our friend – a feat no other videogame had really done before. Because we grew fond of the character of Mario in the game and since he was under our control, "we felt somehow protective, and anxious lest we cause the character harm through our own manual inadequacy" (Poole, 152). Climbing through pipes, using magical mushrooms and flowers to defeat evil, and saving the princess was not only

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<sup>1</sup> *Killer app*, short for *killer application* is used to describe software that is so popular that it drives demand for the hardware that supports it.

<sup>2</sup> *SMB* also starred Mario's younger brother, Luigi, who could be played when the alternating two-player mode was selected. All of Luigi's features and moves mimicked his older brother's, except for his penchant for green in place of Mario's red. Although Luigi has lived in the shadow of his more popular brother, he recently got his debut-starring role in Nintendo GameCube's *Luigi's Mansion* (2001).

Mario's adventure, it became our own. Thus began the start of the massive Mario following we now term *Mario-mania*.

So much demand for the first installment of the game impelled its sequel to be released in 1988, *Super Mario Bros. 2*<sup>3</sup>. This game, when released for the American Market, was actually just a reconfiguration of another game released in Japan called *Doki Doki Panic*. The original turban-wearing characters were simply replaced by familiar Mario characters and the game was packaged to U.S. as the second installment to the Super Mario Bros. series, void of any real Miyamoto input. Even with a very different look and feel from the original *Super Mario Bros.*, the sequel appeased the now-growing Mario-playing population, but not for long. The fans wanted more – *Mario-mania* was in full effect. Thus, while Miyamoto-san and his development team, Research & Development 4 (R&D4), were formulating the biggest bomb to ever hit the videogame industry, the Nintendo Empire capitalized on the opportunity to build up Mario hysteria.

### **Nintendo's Business Blitzkrieg**

With Mario on the front line, Nintendo underwent an obsessive advertising campaign in late 1989 and 1990 that targeted the younger population, hoping to cement their position as the market leader in the United States and finally drive the steak through Sega's heart. Nintendo first turned to PepsiCo, who cautiously agreed to test out an association with the videogame company through one of their smaller brands, Slice. After the Slice campaign became a hit, PepsiCo soon realized the marketing potential of the Nintendo brand. PepsiCo then went ahead with another campaign with national TV

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<sup>3</sup> The Japanese version of *Super Mario Bros. 2* was actually a harder version of *Super Mario Bros.*, but was deemed too difficult and not appealing for the American market. The levels from this game were later packaged as "The Lost Levels" in *Super Mario All-Stars* (1993) for the Super NES (SNES).

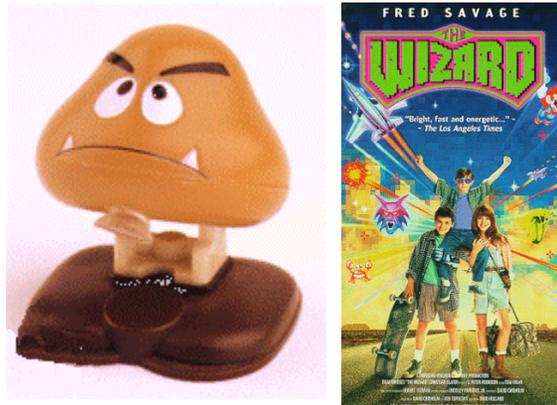
promotions giving away free Nintendo Entertainment Systems (NES), and this too proved a success. The ultimate collaboration between PepsiCo and Nintendo came during its huge Christmas advertising campaign, in which characters from the Super Mario Bros. series were embossed onto two billion Pepsi cans. Tempted by the success of the Pepsi campaign, Peter Main and Bill White of Nintendo of America, Nintendo's U.S. division, struck a deal with McDonald's marketing department to have the next set of Happy Meals based on the upcoming *Super Mario Bros. 3* characters. Like the Pepsi products, kids around America were soon snapping up Happy Meals to collect all four Mario figures. Relentless, Nintendo did not stop there.

In a 1989 meeting between Universal Studios' president Tom Pollack and Nintendo's Bill White and Peter Main, arrangements were made to film a movie based on Nintendo's next Mario game, *Super Mario Bros. 3*. The result was Universal's *The Wizard*, featuring then-popular actors Fred Savage, Bean Bridge, and Christian Slater.

Aimed at the younger movie-going population, the plot of the movie revolved around Fred Savage's character's little brother, a master videogamer who enters in the Nintendo World Championship Competition and takes first place.

Nintendo's ingenious advertising push

came towards the closing moments of the movie, in which players in the final competition played the yet-to-be-released *Super Mario Bros. 3*. Viewers got a sneak preview of the newest Mario game a year before its actual release, creating enormous



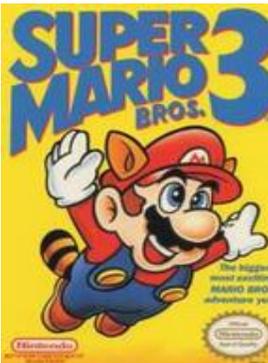
Above: (right) Goomba Happy Meal toy from McDonalds, (left) Movie poster to Universal Studios' *The Wizard*.

hype around the game. Through Universal's movie, Nintendo was essentially able to distribute a 90-minute commercial about its company and *Super Mario Bros. 3*. Not only was it free, Nintendo actually collected money from Universal for licensing fees!

What was the result of Nintendo's zealous advertising efforts? By the end of the company's campaign, a U.S. survey determined that Mario was a more recognizable character to American children than Disney's beloved Mickey Mouse (Poole, 147). Even more important to Nintendo's bottom line, *Super Mario Bros. 3* became the best-selling video game of all time, with 11 million copies sold in the U.S., 18 million copies sold worldwide, and a gross profit of \$500 billion (Sheff, 5).

### **Dropping the Bomb: Super Mario Bros. 3 (SMB3)**

With such a massive marketing effort, one is led to question whether sales for the game were driven more by hype than the actual quality of the game. On February 1990,



Above: Box cover to *Super Mario Bros. 3* for NES.

after two years in development, Miyamoto and his R&D4 team dropped the bomb. *Super Mario Bros. 3 (SMB3)* was released for the Nintendo Entertainment System to the U.S. public through the Nintendo of America label. Toted by discerning critics from respected gaming magazines such as *Electronic Gaming Monthly* and *GamePro* as one of the best console games ever produced, it only takes one play through the game to see why it was so well received among fans and critics alike.

As game wizard Shigeru Miyamoto's next installment of the Mario series, gamers were enchanted by a whole new set of characters, moves, worlds, secrets, and power-ups.

With *SMB3*, Miyamoto basically redefined the side-scrolling platform genre he had originally created. Along with the innovative, Miyamoto instilled a sense of comfort and familiarity among fans of the Mario series, with a number of basic features from the original *Super Mario Bros. (SMB)* incorporated into the *SMB3*. The general story itself mimicked the original *SMB*: King Bowser Koopa kidnaps Princess Toadstool and it is yet again up to plumber brothers Mario and Luigi to traverse through eight worlds to save her. Goombas, Koopa-Troopas, and the like were also back to stir up trouble with our heroes.

Story and characters aside however, every effort was made by Miyamoto's team to make the actual game-play an experience unrivaled by any platform game yet produced. Although there were eight worlds as in the original *SMB*, the strict linear progression in a story was eliminated by having each world take place on an overhead map, which opened up certain stages and various pathways as the player progressed through the game.

Each of the worlds were theme-based and had anywhere from five to ten side-scrolling stages to complete; examples of the creative themes included an Ice world, a Giant world, and a Sky world. Within



Above: Interactive map in *Super Mario*

many of these worlds, almost every nook and cranny could be searched for secrets, upping the replay value of the game. Aside from the secrets within each level, the overhead maps of each world could contain mushroom houses where Toad gave Mario secret items, roulette bonus stages where Mario obtained extra-lives, and roving Hammer Brothers who upon defeat presented Mario with a special suit.

Even more amazing than the environments of *SMB3* was the way Mario was able to interact with them. One addition to this game was the ability to scoop up, hold, and kick shells in a forward or upward direction. The normal mushroom and fire flower from the original were back in this game to enable Super Mario and fire-ball throwing Mario, but those were now just the basic power-ups. In certain worlds, Mario could acquire a Frog-suit that facilitated swimming, a Hammer Brothers-suit that enabled hammer throwing, and a Tanuki<sup>4</sup>-suit that enabled flying. With these power-ups, the sky was literally the limit as players could fly a Tanuki-suited Mario right off the video screen. Because of the non-linear progression of the game, gamers could acquire and store up to 27 of these items to be used in future or previous levels.

With this feature-full game riding on the back of the Mario wave, Nintendo essentially wiped out all competition in the U.S. videogame console market. After years of taking a beating on their Sega Master System (SMS) at the hands of Nintendo, the success of *Super Mario Bros. 3* gave Nintendo and its NES the undisputed title in the 8-bit console arena and marked the end of Sega's SMS.

### **Sega's Mobilization and Counterattack**

Although *Super Mario Bros. 3* was the deathblow to the 8-bit Sega Master System, it did not mean the end of the Sega itself. Down but not out, the scrappy Sega decided to bring their fight into the 16-bit console arena. At the time of the release of their system in 1989, the only real contender was NEC's TurboGrafx-16, a heavyweight whose popularity in Japan surpassed even the mighty Nintendo's Famicom. However, even as Sega and NEC managed to reach the 16-bit plateau in the U.S. first, the initial

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<sup>4</sup> Tanuki is a raccoon-like animal native to Japan, thought to have magical powers.

couple of years seemed bleak for both companies as Nintendo still controlled a vast majority of the market with their system of only eight bits. To make matters worse, Nintendo was now looking to enter the 16-bit market itself with the introduction of the Super Nintendo Entertainment System (SNES). With Nintendo's shadow looming, Sega's Genesis was in dire need of a killer-app that would define it as one of the main players in the industry or it would soon have to face ultimate defeat in the videogame console wars.

Finally coming to the realization that the secret to much of Nintendo's amassment of a fan following was the creation of their flagship character Mario, Sega President Hayao Nakayama assigned designers Yuji

Naka (of *Phantasy Star* fame) and Naoto

Oshima to create Sega's response to Mario

(Poole, 150). In what would be called 'Project

Sonic,' the two designers deliberately crossed

Felix the Cat with Mickey Mouse to produce a

spiky blue offspring with attitude: Sonic the Hedgehog. After being given the green light

from Nakayama, the Sonic Team was formed and production on the new videogame

began immediately.



Above: Sonic Team's preliminary sketches of

### **Directed Missile Launched: Sonic the Hedgehog**

Published by Sega of America, the *Sonic the Hedgehog* videogame was first released in the U.S. on June 1991 for Sega's Genesis system. Following in Mario's footsteps, the game was a two-dimensional side scrolling platform game, where the hero

must beat a boss at the end of a stage to complete it, progressing through stages until the final boss is beaten and a princess-type figure is saved. In the case of *Sonic the Hedgehog*, the hero was a cheeky blue hedgehog named Sonic, the boss at the end of each stage was an egg-shaped baddy named Dr. Robotnik who used different machines to try and thwart Sonic, and the princess-type figure saved at the end of the game was actually the island Sonic lived on, which was slowly being mechanized by Dr. Robotnik. Although it had rich graphics and a notable soundtrack, compared to *Super Mario Bros. 3*, *Sonic the Hedgehog* did not have a two-player option, did not have many secrets or power-ups, and did not have a non-linear progression. What *Sonic the Hedgehog* did have, however, was a strong character that sold the game and essentially saved the company.

Unlike the haphazardly created Mario, put together by dreamer/designer Shigeru Miyamoto, every detail about Sonic was created by Sega with purpose and direction. Sonic's blue coat purposely matched the color of Sega's logo. His name itself, Sonic, spoke of his ability to break the sound barrier. Speed was Sonic's only true superpower, which was strategically planned by Sega. By having Sonic zip across the screen faster than seen before in any videogame, Sega's marketing department could explain the effect as unique to the Genesis 68000 microprocessor through a feature known as 'Blast Processing,' even though technically Nintendo's more advanced SNES could have probably run Sonic just as fast, if not faster. The obstacle course-like stages created for *Sonic the Hedgehog*, littered with springs, loops, and ramps, highlighted Sonic's speed and dared the player to push the hero's limits.

Another finely orchestrated aspect of Sonic the Hedgehog was his pronounced attitude and confidence as you controlled him in the game. Embodying the typical teenager, the brash Sonic grew impatient if you could not keep up with him, looking at



Above: *Sonic the Hedgehog* title screen.

his watch and tapping his foot as he waited for you to decide his next move. Even when smiling, his scowling brow and waving finger defined his attitude as one with an edge. To show off Sonic's independence, confidence, and even cockiness, designers for the game specifically placed track sequences on the course in which the blue, balled-up hero sped so fast that even the player could not control him.

This same 'attitude with an edge' subsequently formed the foundation for Sega's new aggressive, radical marketing campaign (SEGA!!!), which went as far as taking cheap shots at Nintendo in its TV commercials. With Sonic as its lead, Sega remade its image into the cooler, trendier, more mature pick among gamers. Miyamoto and the Nintendo camp on the other hand, continued to produce and give support to games that were cute, funny, and wholesome (Takahashi, 295). Sonic was Sega's Mario-killer and its newfound attitude appealed to the more hardcore, mature gaming crowd. Sega had survived by finally finding their niche in the videogame market. Nintendo's staunch 'Mr. Rogers-like' belief in having its videogames display moral and political correctness and Miyamoto's focus on entertaining 'the child' in the gamer had blindly and naively given Sega another chance at life.

## Conclusion: The Legacies of War

As the war between Nintendo and Sega raged on throughout the nineties, the battleground changed immensely: the market broadened and matured, new key players entered the industry, and even newer technologies were

introduced. Like all empires, time can wither away even the most powerful. And so in the present day, the once mighty Sega and its cocky mascot Sonic have now been humbled, forced to work as mercenaries for the Nintendo

camp. On February 2002, the unimaginable just a few years back occurred as *Sonic Adventure 2 Battle* debuted

on the Nintendo GameCube. Despite Sega's recent fall, what we should take away from this case study are the business, cultural, and technological contributions that emerged from Nintendo and Sega's struggle for supremacy in the videogame world during the late 1980s and early 1990s. Highlighted by such games as *Super Mario Bros. 3* and *Sonic the Hedgehog*, the Nintendo-Sega War paved the way for the respect, recognition, and importance the multibillion dollar videogame industry receives today.



Above: Sonic and Mario pose together in Nintendo of America headquarters during launch of *Sonic Adventure 2 Battle*.

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