



Pac-Mania:

How Pac-Man
and Friends
Became Pop
Culture Icons

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They were the most fashionable couple of the early 1980's, even though between the two of them the only article of clothing they had was a pink bow. *Pac-Man* and *Ms. Pac-Man*, first introduced to us in 1980 and 1981 respectively, transformed the video game industry. All it took was one look at that cute little eyeless face and Pac-Mania ensued. Yet, *Pac-Man* wasn't all fun and games. Being the first character-based game, *Pac-Man* merged storytelling and videogames (Poole, 148). When the *Ms.* came out, girls were no longer afraid to go to the arcade. Soon the Pac-Family invaded all forms of media and Pac-based products ranged from cereal to key chains (Trueman). The success of *Pac-Man* and its sequels brought video games out of the arcades and into the center of pop culture where they have remained to this day.

Pac-Man is a simple game about one of our basic needs in life: food. The goal of the game is to eat all 240 dots in a maze without running into one of Pac-Man's four enemies, the colorful ghosts Blinky, Pinky, Inky, and Clyde. There is an edible item in the middle of the maze that gives you bonus points as well as telling you what stage maze you are on: Level 1: Cherries, Level 2: Strawberry, Levels 3-4: Peach, Levels 5-6: Apple, Levels 7-8: Grapes, Levels 9-10: Galaxian flagship, Levels 11-12: Custard pie, and Levels 13+: Key (Sellers, 57). On either side of the maze, a passageway allows Pac-Man to quickly move between the left and right side of the maze. Pac-Man's only defense, besides clever maneuvering, is the four power pellets in the maze. When he consumes one of these, all four ghosts turn blue for a short while and can now be eaten by Pac-Man for points. The eaten ghost's eyes float back to the center of the maze, where he becomes whole again. After certain stages, simple cartoons are shown where Pac-Man seems to be in danger, but always end happily (at the expense of the ghosts)

adventure game, which was a predecessor of *Super Mario Bros.* (Anonymous in *Pac-Man series – Yesterdayland Arcade Games*).

Pac-Man started the genre of maze games. At the time of *Pac-Man*'s release, space and war games were very popular, but afterwards numerous *Pac-Man* look-alikes appeared in the arcades, including *Mappyland*, *Eyes*, *Pengo*, *Congo Bongo*, and *Piranha* (Kent, 143).

Pac-Man's creator, Toru Iwatani, realized at the time that he was creating a revolutionary game:

“All the computer games available at the time were of the violent type - war games and space invader types. There were no games that everyone could enjoy, and especially none for women. I wanted to come up with a ‘comical’ game women could enjoy. The story I like to tell about the origin of Pac Man is that one lunchtime I was quite hungry and I ordered a whole pizza. I helped myself to a wedge and what was left was the idea for the Pac Man shape” (Lammers in Ainsworth).

Iwatani also referred to an old Japanese children's story for inspiration. In it, a heroic creature protects children by eating monsters. Since eating was the theme of the game, he used the *Kanji* character for mouth, *kuchi*, for the creature's shape:

“In Japanese the character for mouth (*kuchi*) is a square shape. It's not circular like the pizza, but I decided to round it out” (Lammers in Ainsworth).

This is how *Puck-Man* (from the Japanese sound for eating, *Paku-Paku*), changed to *Pac-Man* in America, was born (Lammers in Ainsworth).



Iwatani demonstrates how he got his inspiration for Pac-Man, photo from <http://www.vanschip.com/puck-man/pizza.html>

Iwatani worked for Namco, a Japanese video game company, at the time he created *Pac-Man*. When he first joined Namco, he had hoped to create pinball machines. Since Namco only produced video games, Iwatani channeled this energy into making video pinball games such as *Gee Bee*, *Bomb Bee*, and *Cutie Q* (Kent, 140). After creating these games, he decided to try something different, and he was very motivated to make a game that would appeal to all audiences, including women. By making *Pac-Man* a non-violent, colorful, creative game, Iwatani succeeded in not only producing a fantastic arcade game, but also a cultural icon.

Pac-Man proves that the overall success of a game is due to great game-play and not advanced technology. The interface is extremely simple; you control the game with a red joystick and one and two player start buttons. The graphics are limited, Pac-Man has no features, and the ghosts must communicate with their huge, *anime*-like eyes.

The one technology that was important to *Pac-Man* was the artificial intelligence of the ghosts. Iwatani explained,

“The algorithm for the four ghosts who are dire enemies of the Pac Man -getting all the movements lined up correctly...This is the heart of the game. I wanted each ghostly enemy to have a specific character and its own particular movements, so they weren't all just chasing after Pac Man in single file, which would have been tiresome and flat” (Lammers in Ainsworth).

One of the features that balances out the difficulty of the game is “scatter mode.” Iwatani felt that if the ghosts constantly attacked Pac-Man, the game would be too stressful. So he created “scatter mode”, where every once in a while the ghosts would stop their pursuit of Pac-Man and head to a particular corner of the maze. At all other times the ghosts follow certain behaviors while trying to hunt down Pac-Man (Anonymous in *Ghost Psychology*).



The bad guys: Blinky, Pinky, Inky, and Clyde (images from <http://jongy.tripod.com/GhostPsychology.html>)

Blinky, whose official name is Shadow, is Pac-Man’s most challenging opponent. Unlike the other ghosts, he will not always scatter in “scatter mode” and is more likely to follow Pac-Man around corners. Another trait that makes Blinky a more dangerous ghost

is that he speeds up after Pac-Man has eaten a certain number of dots in the maze (this varies according to what level you are on). Pinky, also known as Speedy, goes around the blocks in the maze in a counterclockwise direction. This is a clever move since two other ghosts, Blinky and Inky, usually go around the blocks in a clockwise direction. Due to this design, it is very common for Pac-Man to become trapped between Pinky and either Blinky or Inky. However, Speedy's name is a misnomer, he travels at the same speed as the other ghosts. Inky, or Bashful, is very unpredictable. He will respond differently in the same situation at different times. Clyde, or Pokey, does not effectively pursue Pac-Man at all. A consequence of this behavior is that it is often hard to round up all the ghosts after Pac-Man eats a power pellet. After complaints about the predictability of the ghosts' behavior, the A.I. of the ghosts was further enhanced in *Ms. Pac-Man* (Anonymous in *Pac-Man series – Yesterdayland Arcade Games*).

The most successful sequel to *Pac-Man*, even more popular than *Pac-Man* in America, is *Ms. Pac-Man* (Kent, 173). *Ms. Pac-Man* was the sequel that first introduced the concept of a Pac-Family and spawned the generations of Pac-sequels to come. *Ms. Pac-Man* was originally called *Crazy Otto*, an enhancement pack invented by General Computer Corporation. Created through a reverse engineering process, these enhancement packs could be placed on the existing boards of the *Pac-Man* machines. Without the technological innovation of the enhancement pack, Pac-Man would remain a bachelor to this day (Kent, 169-173).

Pac-Man represented a completely new form of game design. Before *Pac-Man*, games were generally targeted towards men. Until 1980, the most popular games had focused on typically male subjects: space wars (such as *Space Invaders* and *Computer*

Space), sports (*Pong*, *Atari Football*), and fighting (*Tank*, *Gun Fight*) (Sellers, 14-36).

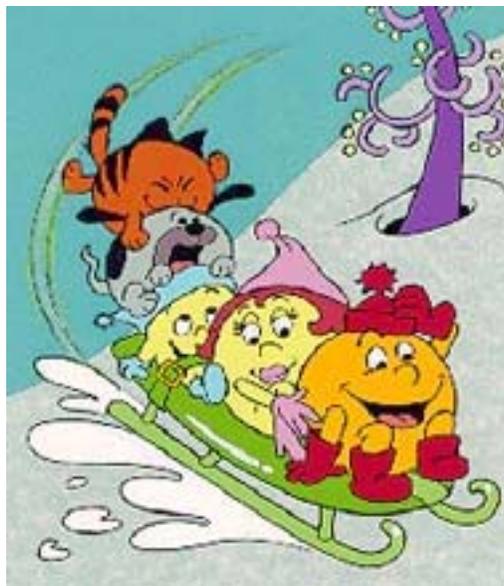
Toru Iwatani had realized this and purposely designed *Pac-Man* so that it could appeal to women as well as men. He made *Pac-Man* a non-violent game that was based on a need everyone could understand—eating, and it subsequently became the most successful game of all time (Sellers, 56).

Much of *Pac-Man*'s success is due to the game's ideal learning curve. *Pac-Man* is easy to understand but hard to master (Fragmaster). One way that people began to excel at *Pac-Man* was through patterns. The A.I. of the ghosts was such that the ghosts' moves were always based on Pac-Man's moves. Because of this, players were able to figure out certain patterns of movements for each screen that would allow them to perfectly clear that screen. The sequels of *Pac-Man* attempted to fix this problem by improving the A.I. of the ghosts and introducing new mazes. Overall, the sequels that remained the truest to the original *Pac-Man* (such as *Ms. Pac-Man*) were the most successful.

Pac-Man and the Pac-Mania that surrounded it completely changed the popularity of video games. Before *Pac-Man*, video games were a kids' subject, and most video games were in arcades. After *Pac-Man* hit the cover of TIME magazine, even moms knew who this funny yellow guy was, and video game machines spread to drugstores, restaurants, and supermarkets (Kent, 143).

A major contributor to Pac-Man's appeal was that he was the first character to star in a video game. Games before had been focused on spaceships or other inanimate objects. As simple as Pac-Man was, he was a "living thing" and there was a story behind his battle with Blinky, Pinky, Inky, and Clyde; players saw glimpses of this story in the

intermission cartoons of the game (Sellers, 56). When *Ms. Pac-Man* came out and introduced his family, Pac-Man became even more lovable. People could identify with Pac-Man and become his fan; they bought Pac-Man lunchboxes, key chains, bed sheets, and cereal. Pac-Man and his loving family even starred in their own Saturday morning cartoon (Sheff, 73). Pac-Man books and songs were on the New York Times best-seller list and the Billboard Charts. Pac-Man gave video games their own true place in pop culture, and few other video game characters have enjoyed such celebrity to this day.



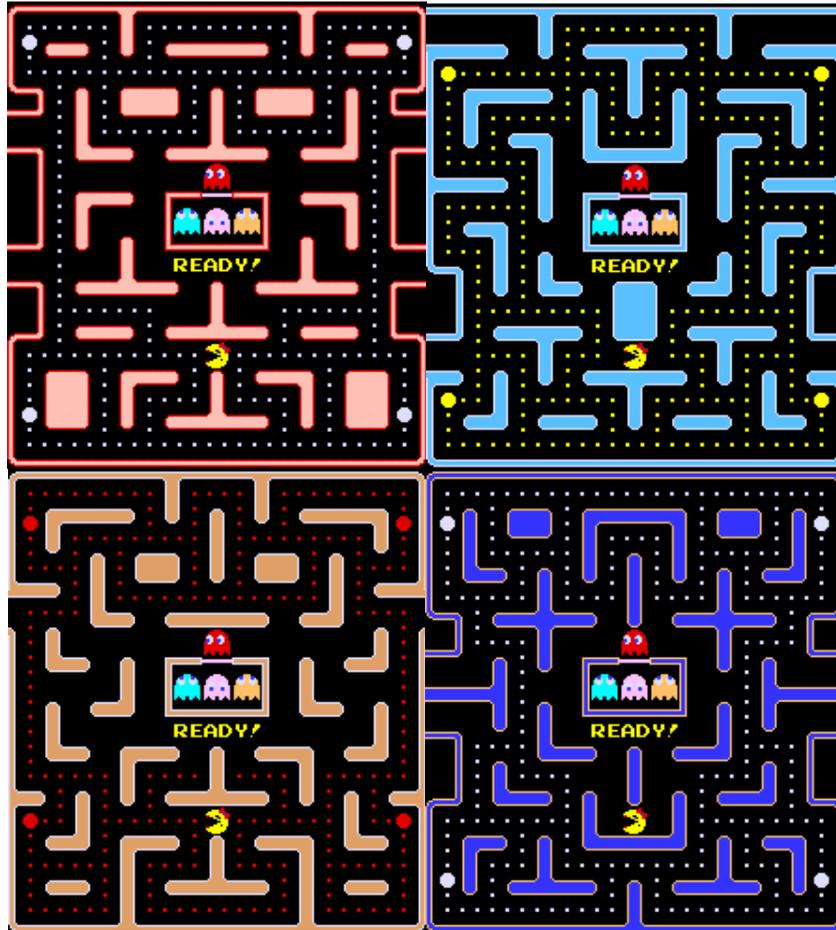
One big happy family: the stars of the Saturday morning Pac-Man cartoon (image from <http://www.yesterdayland.com/popopedia/shows/saturday/sa1155.php>)

Several companies came together to secure the success of *Pac-Man*. The original game was designed by Toru Iwatani in 1980, who worked for Namco of Japan. Namco, which stands for Nakamura Manufacturing Corporation, started when Masaya Nakamura purchased two mechanical horse rides and placed them on a department store roof in 1955. In 1974, Namco purchased the Japanese branch of Atari and entered the coin-operated videogame market (Anonymous in *ENGLISH SUMMARY/NAMCO History*). Just three years later, Iwatani joined Namco as a designer. After the success of *Pac-Man*

and the failure of his next game *Libble Rabble*, Iwatani left game design to join the administration of Namco (Kent, 144).

Pac-Man was distributed in the United States by Bally-Midway. Bally had been in the pinball/slot machine industry since the 1930's when Ray Moloney, the founder of Bally, created his first pinball machine, Ballyhoo (Kent, 3). Bally had purchased Midway in the 1970's and entered the coin operated video game industry. Bally-Midway succeeded in the late 1970's by licensing games from other companies (such as Space Invaders from Taito) but needed a new licensing partner after Taito began distributing their own games in the US (Kent, 137). They turned to Namco in Japan and first distributed *Galaxian* and then *Pac-Man*. Known as *Puck-Man* in Japan, Bally-Midway decided to rename the game *Pac-Man* to deter vandals from changing the P to an F (Goldberg).

After the huge success of *Pac-Man*, Bally-Midway was looking for an even more successful sequel. They were lucky enough to be approached by General Computer Corporation, a company formed by students from MIT. General Computer had devised a plan to make enhancement boards that could piggyback on existing boards in video game machines and improve their game-play. They had already come up with a successful sequel to *Missile Command* when they approached Bally-Midway with *Crazy Otto*, a *Pac-Man* enhancement board. Bally-Midway immediately struck a deal to use these boards to create a *Pac-Man* sequel. They had only one request: the *Crazy Otto* character that General Computer created had legs, but Bally-Midway wanted the game to stick to the original character as much as possible. *Ms. Pac-Man* was born in 1981 (Kent, 171). The rest of the *Pac-Man* sequels were soon to follow.



Ms. Pac-Man featured four distinct mazes and bouncing fruit. More importantly, our heroine was gussied up with an eye, a mole, some lipstick, and a fancy bow. Images from <http://www.classicgaming.com/pac-man/Pac-Games/MsPacMan/>)

Pac-Man was the first video game to star an animate character (Poole, 148). *Pac-Man* was something the players could relate to, they could fight for him or even become him. The simplicity of his shape made it even easier for all types of people to identify with him, much more so than if he had been a detailed, exact drawing of a monster-eating creature (Herz, 162-163). Because *Pac-Man* was animate, he could have a story, a background, and soon a family. As Murray states in *Hamlet on the Holodeck*, contest is the earliest form of narrative (Murray, 145). It then fits that *Pac-Man*, the first character

based game, is centered around the simplest of stories. As Pac-Man's family grew, we grew to love him, and supported his cause—his fight against the evil ghosts.

Think of the video games we see today. What is the first that comes to mind? *Super Mario Bros.*? *Zelda*? *Mortal Kombat*? The most popular games since *Pac-Man* were usually ones with a story, a cast of characters we could fall in love with. Character-based games have changed the way we look at video games. We see many of them as a form of storytelling. A later sequel to *Pac-Man* was based off of his family's Saturday morning cartoon. *Pac-Land* was a scrolling adventure game where Pac-Man would travel through villages, countryside, and forests in order to rescue Princess Buttercup and go home to his family. This game was extremely popular in Japan, later inspiring Shigeru Miyamoto to create *Super Mario Bros.*, which propelled Mario into stardom (Anonymous in *Pac-Man series – Yesterdayland Arcade Games*).

Pac-Man spawned a sequel that surpassed its own popularity in America, *Ms. Pac-Man*. *Ms. Pac-Man* was not only a character-based game, but it was the first game that featured a female character (Herz, 171). *Ms. Pac-Man* was not a damsel in distress either; she was the heroine of the game, fighting her own battle against Blinky, Pinky, Inky, and Sue. As J.C. Herz says in her book, *Joystick Nation*:

“In 1981, *Ms. Pac-Man* was the Gloria Steinem of videogames. She could do everything her male counterpart could do, backward, forward, sideways, and wearing a jaunty pink bow. She used the hear-me-roar feminist honorific” (Herz, 171).

A video game with a female main character gave women a role model in the gaming world. Few games since *Ms. Pac-Man* have put women characters in a position of

power. These games, like *Tomb Raider*, allow women to feel more confident and comfortable playing games of any genre (even typical male genres such as fighting games or sports games). The popularity of *Pac-Man* ensured that men would accept Ms. Pac-Man's position as well, giving women an all around boost in the gaming world.

Pac-Man was also the first game whose popularity carried it to other forms of media. The *Pac-Man* Hanna-Barbera cartoon ran for 3 years on ABC (Anonymous in *Pac-Man series – Yesterdayland Arcade Games*). It featured Pac-Man, Ms. Pac-Man, Baby-Pac, and their two pets, Chomp-Chomp and Sour Puss. We watched in amusement as they guarded the power pellet forest against the evil Mezmaron and his five ghosts: Blinky, Pinky, Inky, Clyde, and Sue. The popularity of the *Pac-Man* cartoon was inevitable, as players had already been drawn to the Pac-Family's story from the original games. Pac-Mania spread to the music world as well. With their song *Pac-Man Fever*, Buckner and Garcia scored a top ten hit on the Billboard charts and again demonstrated the complete infiltration of *Pac-Man* into the popular culture (Sellers, 60). Products featuring Pac-Man and family, ranging from *Pac-Man* pasta to *Pac-Man* gym shorts, flew off the shelves.



An ashtray, Chef Boyardee Pasta, and stuffed couple themselves—just some of the Pac products that graced the shelves during the Pac-Man craze. Images from http://videogames.gamespot.com/features/universal/hist_pacman/p3_01.html

Obviously, other video game companies were not blind to the success of *Pac-Man* and *Pac-Man* paraphernalia. Pac-Mania had shown top executives the marketability of

any video game character, especially one that appealed to men and women. Nintendo has capitalized the most off of this philosophy with Mario and friends and more recently, *Pokemon*. We can only imagine how the success of *Pac-Man* has helped other video game companies in their quest for our hearts and wallets.

Pac-Man, designed by Toru Iwatani in 1980, was the most successful arcade game of all time. The game-play was simple, yet addictive. You were a simple yellow eating disk who avoided ghosts and gobbled bonus items and pellets. Unlike the games that came before it, *Pac-Man* was meant to appeal to men and women. It spawned numerous sequels, including *Ms. Pac-Man*, the most popular arcade game in American history. Together, the Pac-Family spread to numerous forms of media, including television and music, and continued to entertain us throughout the 1980's and 1990's. The Pac name has gained so much recognition that *Pac-Man* sequels, such as *Pac-Man World* and *Ms. Pac-Man Maze Madness*, continue to be released today. *Pac-Man* not only revolutionized the gaming world with its non-violent, character based story, but it also showed how marketable and culturally pervasive video games could be.

Works Cited

- Anonymous, *Ghost Psychology*. <http://jongy.tripod.com/GhostPsychology.html>
- Anonymous, *ENGLISH SUMMARY/NAMCO History*.
<http://www.namco.co.jp/home/eg/history.html>
- Anonymous, *Pac-Man series – Yesterdayland Arcade Games*.
<http://www.yesterdayland.com/popopedia/shows/arcade/ag1100.php>
- Ainsworth, Keith, *Pac-Man Designer Toru Iwatani*.
<http://retrogamer.merseyworld.com/iwatani.htm>
- Fragmaster, *Game of the Week – Pac-Man*.
<http://www.classicgaming.com/rotw/pacman.shtml>
- Goldberg, Marty. *Pac-Man: The Phenomenon – Part 1*.
<http://www.classicgaming.com/features/articles/pacmanseries/>
- Herz, J.C., *Joystick Nation*. Little, Brown, 1997.
- Kent, Steven L., *The Ultimate History of Video Games*. Prima Publishing, 2001.
- Murray, Janet Horowitz, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. MIT Press, 1997.
- Patterson, Patrick, *The Arcade Classics: Where the Game is Still Not Over*.
<http://www.geocities.com/arcadeclassics.geo/PACMAN.html>
- Poole, Steven, *Trigger Happy: Videogames and the Entertainment Revolution*. Arcade, 2000.
- Sellers, John, *Arcade Fever: The Fan's Guide to the Golden Age of Video Games*. Running Press, 2001.
- Sheff, David and Andy Eddy, *Game Over: Press Start to Continue*. GamePress, 1999.
- Trueman, Doug, *The History of Pac-Man*.
http://videogames.gamespot.com/features/universal/hist_pacman/

Two cases were spotted among people who were fully vaccinated. No-one has died yet. Despite PHE saying there was no evidence of community transmission, only three of the cases had a history of travel. Health chiefs said additional contact tracing has already been carried out. Targeted testing will be deployed to limit its spread, if necessary. STS 145 " History of Computer Game Design Case History : Harry Potter Game Series Harry Potter & The Role of Licensed Properties in Video Game Development. @inproceedings{Ong2009STS1, title={STS 145 " History of Computer Game Design Case History : Harry Potter Game Series Harry Potter & The Role of Licensed Properties in Video Game Development}, author={Q. Ong}, year={2009} }. Q. Ong. Published 2009.