Walt Disney, the 1964-65 World's Fair, and the 
Emergence of Audio-Animatronics

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Abstract

The World’s Fair of 1964/65 held in Flushing Meadows, New York was a fascinating event when ideas and technology were brought together in a world showcase. With company sponsorships from corporations represented at the fair, the Disney Company was able to research and experiment with new technologies that, in turn, transformed the modern amusement park. Disney greatly influenced the World’s Fair, and the World’s Fair greatly influenced the Disney Company. Audio-animatronics technology was perfected during the Fair, and has now become a staple of the modern amusement park. The attractions that Disney created for the World’s Fair were incorporated into both Disneyland and later Disney World, and even helped shape EPCOT (Experimental Prototype Community of Tomorrow) Center. The World’s Fair of 1964-65 provided an unprecedented opportunity to develop new technology at little or no cost to the Disney Company. This reciprocal relationship benefited both the Fair and the Disney Company, which continues to affect amusement parks today.
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**Introduction**

The World’s Fair of 1964-1965 brought together the culture and technology of a new age into a world showcase. Held in Flushing Meadows, New York from April to October 1964 and April to October 1965, the Fair attracted thousands from all over the world, drawn to the wonder of the world’s newest inventions and displays. The master builder behind the Fair was Robert Moses, who was labeled the “master builder” of New York City. Moses worked under tremendous pressure, expected to recreate the excitement and wonder of the 1939-40 New York World’s Fair, also held in Flushing Meadows, New York. What made the 1964-65 World’s Fair different, however, was the participation of one of the most recognizable names associated with entertainment: Walt Disney.

Every year Walt Disney World in Orlando, Florida welcomes almost 18 million visitors to its gates. Disneyland in Anaheim, California welcomes almost 16 million. These visitors come to experience the magic of Disney: the rides, the shows, and the characters. Disney creates a world where fantasy becomes reality.

However, the “happiest place on earth” did not just appear on the world stage. It came from the mind of one man: Walt Disney. While grand as compared to other amusement parks at its inception, the first Disney park continually evolved. Walt Disney said, “Disneyland will never be finished as long as there is imagination left in the world.” Moving from a traditional amusement park to what is known today took shape in part due to the technical advances developed by Disney for the 1964-65 New York World’s Fair.
With company sponsorships from major corporations being represented at the Fair, the Disney Company was able to research and experiment with new technologies that, in turn, transformed the modern amusement park. The relationship between Disney and the World’s Fair establishment was a reciprocal one with both benefitting from the ideas and exposure of the other. For Walt Disney, the World’s Fair helped to take his concepts for Disneyland and Disney World to new heights. The attractions that Disney created for the World’s Fair were incorporated into both Disneyland and later Disney World in Florida, and even influenced the development of EPCOT (Experimental Prototype Community of Tomorrow) Center in Florida. The relationship between Disney and the enterprise of the World’s Fair transformed the function of the amusement park model with the addition of new technology, called audio-animatronics, created by the Disney Company specifically for the World’s Fair.6

Walt Disney

Walter Elias Disney was born on December 5, 1901 in Chicago, Illinois.7 Although Walt was born in Chicago, his early memories are from his home in Marceline, Missouri, where the family moved in April 1906.8 He was interested in art at a young age. Walt and his younger sister Ruth often were left at the family farm alone, and once they decided to open a barrel of tar and paint the side of the house with drawings.9 The tar was too difficult to remove off of the house, and it was forever ingrained in the family’s memory. This was the beginning of the Walt Disney creative legacy.

When Walt was 19 years old, he began a company that specialized in cartoons with his friend Ub Iwerks and named it the Iwerks-Disney Commercial Artists Company.10 Despite the legend that Walt came up with Mickey Mouse while riding in a
train car, the iconic character was actually created in a collaborative effort between Disney and Iwerks during this time. However, this company was short lived, and soon Disney was taking other freelance jobs in the same field of work: animation and commercials. Not long after the failure of the Iwerks-Disney Commercial Artists Company, Walt and his older brother Roy pooled their money to create the Disney Brothers Studio in California. This studio ultimately evolved into the famous Walt Disney Company, which is well known today as the franchise producing films, toys, and the Disney theme parks, among many other ventures. Then, in December of 1952, Walt Disney Incorporated was founded and served as a "...personal corporation for Walt's activities outside of the studio." Later renamed WED Enterprises, this new endeavor was responsible for the design and construction of the Disney Company, including the planning of Disneyland in California, as well as the attractions that debuted at the 1964-65 World's Fair.

The Disney Concept

Walt Disney often took his two daughters, Diane and Sharon, to amusement parks on Sunday mornings. During these trips, he noticed adults standing around, anxious to go home. The parks that they visited were dirty with litter and sometimes smelled bad. After these observations, Disney decided to build an amusement park of his own, where parents and children alike found entertainment, and a park that had a clean and friendly environment.

The famous Disneyland Park in Anaheim, California was first envisioned in a memo on August 31, 1948. This memo outlined a Mickey Mouse Park that housed attractions and even envisioned a town surrounding the park. Walt stated in the memo
that there was to be a carnival section that “will be attached off the village and will be the regular concession type which will appeal to adults and kids alike. There will be roller coasters, merry-go-rounds . . . typical Midway stuff. (This will be worked out later.).”¹⁷

This was Walt’s first conceptual idea of creating an amusement park, which eventually grew into the Disneyland known today in Anaheim, California through WED Enterprises.

Prior to the opening of Disneyland, Walt Disney was intrigued with the idea of robotic technology that combined sound, motion, and electronics, which were later called audio-animatronics. One of Walt’s major goals for WED was to “develop a method of animating three-dimensional figures in the same way he had been able to give life to cartoon characters in films.”¹⁸

The perfect venue for these new technologies was Disneyland. Opening on July 17, 1955, Disneyland housed a variety of attractions, including Mr. Toad’s Wild Ride, the King Arthur Carousel, Peter Pan’s Flight, and Rocket to the Moon.¹⁹ For Disney, an incorrigible perfectionist, the opening day of his new park was disappointing as there were still many problems to be fixed.²⁰ However, it gave Disney experience dealing with issues such as “increasing the capacity of rides, handling the flow of people through the park, and relieving traffic jams in the surrounding area,” which helped him later with the World’s Fair venture.²¹

Disneyland quickly became a popular tourist destination with approximately 6.1 million visitors between 1955 and 1960 alone.²² With the amusement park open and running, the Disney Company was able to turn its attention back to the exciting idea of robotic technology.
**Disney's Automated Mannequins**

Walt Disney first came up with his vision for audio-animatronics as early as the postwar years in the United States. The first basic application of the new audio-animatronic technology was in an attraction named the Enchanted Tiki Room, which opened June 23, 1963 in Disneyland. The Tiki Room remains a popular attraction in the park today and is a “seventeen-minute performance, with 225 birds, tiki gods and flowers singing, telling jokes, appearing and disappearing.” Animal animatronics were simpler to create; human movements were more complicated. His interest in moving this technology forward was what inspired Walt Disney’s participation in the World’s Fair. He wanted to create life-like representations of people and animals that were unprecedented in other attractions at the time. According to one author:

There was one particular sophisticated concept that Disney wanted to try out at the World’s Fair. It was his own brand of robotic technology: life size and lifelike automated mannequins that could move, speak, stand, or sing, thanks to an internal recording device. He called his creations audio-animatronics, a phrase he had trademarked. It was a concept that Disney had been mulling over since the early 1950s, and for the global audience of the World’s Fair, he resurrected the idea.

It was the success of the early audio-animatronics that propelled Walt Disney to pursue this technology at the 1964-65 World’s Fair.
Disney and the 1964-65 New York World’s Fair

By the early 1960s, Disneyland had become a successful business venture, and Walt Disney decided that he wanted to establish another amusement park. However, he needed a testing ground, a way to bring his visions to life before embarking on a new project. The 1964-65 New York World’s Fair was of interest to Walt, as the Fair provided an opportunity to gauge the interest level of the eastern half of the United States to his product. The Fair also allowed the Disney Company to develop and refine technological advances. The Fair was “critical, because Walt [Disney] used it as a proving ground for Walt Disney Imagineering to develop bigger and better shows, and to advance Animatronics beyond the [Enchanted] Tiki Room,” said Tony Baxter, former Vice President of Creative Development at Walt Disney Imagineering. His influence was so great that one article stated, “The sophisticated visitor approaches the fair ready to dismiss it as ‘Disneyland East,’ but he – or she – will find it hard to resist being swept up by the exuberant shapes and sights and sounds of the world’s biggest playground.”

When discussing the World’s Fair with his staff in 1960, Walt stated:

There’s going to be a big fair in New York. All of the big corporations in the country are going to be spending a helluva lot of money building exhibits there. They won’t know what they want to do. They won’t even know why they’re doing it, except that the other corporations are doing it and they have to keep up with the Joneses. Now they’re all going to want something that will stand out from the others, and that’s the kind of service we can offer them. We’ve proved we can do it with Disneyland. This is a great opportunity for us to grow. We can use their financing to develop a lot of technology that will help us in the future. And we’ll be getting new attractions for Disneyland, too. That’ll appeal to them: we can say that they’ll be getting shows that won’t be seen for just two six-month periods at the fair; those shows can go on for five or ten years at Disneyland.

Walt recognized an opportunity to expand his company with the financing of other corporations, while providing the Fair with four of its most popular attractions.
This interaction propelled the advances in audio-animatronics into the public sphere and established it as a serious technology for use in future park design.

**Logistics of the Fair**

City planner Robert Moses was the driving force behind the New York World’s Fair of 1939-40, and he provided New York with an offer the city was not able to refuse for the 1964-65 World’s Fair. Moses planned “to use the Fair to furnish the city with a major new park [which] garnered support for the World’s Fair from the former New York Mayor Fiorello La Guardia.” An early estimate of attendance was over 71 million people, which was expected to net millions of dollars in profit. The estimated profit allowed Moses to “fund his nearly forty-year-old dream of transforming Flushing Meadows into New York’s premier green space,” rivaling Central Park in Manhattan.

The Flushing Meadows city-owned park land had fallen into ruin, and was even considered an “open sewer.” A man named John A. “Fishhooks” McCarthy had access to this city land, and for years “the Forty Thieves on the city’s old Board of Alderman had allowed Fishhooks’ Brooklyn Ash Removal Company to use [the land] as a gigantic dump for the burning of the garbage of all Brooklyn.” Flushing Meadows had previously lodged the 1939-40 World’s Fair, so Moses wanted to bring this area back to life. The 1939-40 World’s Fair had lost money, so “using the same land more than two decades later, [Moses] reasoned, millions could be saved in construction and design costs,” which helped offset the lost money.

The central focus of the 1964-65 Fair was the “Unisphere,” a twelve-story steel depiction of the Earth, donated by U.S. Steel. The World’s Fair was a global event, featuring many cultures of the world. The United States was to be represented well as a
country, with pavilions from twenty-three states and twenty-eight major corporations.\textsuperscript{37} Moses had a love of mainstream popular entertainment and knew how great an opportunity it was to include the most innovative man in the business, which led to "his personal recruitment of Walt Disney" for the World's Fair.\textsuperscript{38}

Although Robert Moses was the chief executive of the World's Fair, he declared that "pavilion creators were free to build whatever they liked, as long as it adhered to the Fair's building codes," which were tightly enforced.\textsuperscript{39} Disney designed four pavilions at the Fair, and all achieved high attendance rates. The "Disney-created pavilions turned out to be the most popular at the Fair, with often a two or more hour wait to get into any of them."\textsuperscript{40} A total of 91% of all Fair-goers attended at least one of the Disney designed pavilions.\textsuperscript{41} The impact of WED Enterprises at the Fair determined not only the types of pavilions, but also influenced the types of technologies now associated with attractions. For the first time, fairgoers had the opportunity to see audio-animatronics that proved to amaze and delight. Judge Samuel Rosenman, former member of the New York State Assembly and advisor to Presidents Franklin Roosevelt and Harry Truman, stated, "The whole [Fair] is going to be just an entrancing, delightful affair."\textsuperscript{42}

**Disney at the Fair**

After Walt Disney made the decision to participate in the World's Fair, he had WED Enterprises send task groups from the company to visit the top corporations in the United States to field any interest in working with Disney on a pavilion.\textsuperscript{43} These
included General Motors, Coca Cola, General Electric, Pepsi-Cola, Ford, Travelers Insurance, Kodak, IBM, and AT&T, all of which possessed significant financial weight and power.\textsuperscript{44} Walt Disney had seen an "opportunity to develop new rides, new concepts, and – with the benefit of corporate subsidies – new technologies" at the Fair.\textsuperscript{45} This unique opportunity was too valuable to pass up, and Disney decided to "charge corporate clients $1 million for the use of his company's name in their pavilions," knowing the Disney name would bring in attendance.\textsuperscript{46} Disney ultimately designed four attractions for the Fair: \textit{Magic Skyway}, \textit{Carousel of Progress}, \textit{Great Moments with Mr. Lincoln}, and \textit{it's a small world}.

The Ford Motor Company was receptive to the idea of a partnership with WED Enterprises and Walt Disney. The company "reached out to the only man alive who could possibly trump its archrival [General Motors]," Walt Disney.\textsuperscript{47} In the introduction of the ride, Henry Ford II, chairman of the Ford Motor Company, welcomes riders to an "adventure created by the incomparable Walt Disney," which would become one of the most popular pavilions at the Fair.\textsuperscript{48} Ford expressed interest in the idea Walt Disney suggested, "an attraction that would carry fair visitors in Ford cars through audio-animatronics depictions of Man's development from the Stone Age to modern times."\textsuperscript{49} This attraction became known as Ford's \textit{Magic Skyway}. Even though audio-animatronic technology had not been perfected yet, this was a task Disney was
confident his company would be able to accomplish. Different from other pavilions, “the Ford exhibit, created by Walt Disney and designed by his WED Enterprises, Inc., [was] a series of new adventures which you actually become a part of, and in this respect each is an excitingly different, personal experience” through the attraction. The Disney Company sought the collaboration between Ford and WED, but it ultimately proved beneficial to both parties.

Ford’s Magic Skyway was a 12-minute car ride through representations of the past, present, and future. The entrance to this pavilion was “a glass-enclosed, rotunda-like structure, 235 feet in diameter and 58 feet high, surrounded by glittering pylons 100 feet tall.” For this attraction, visitors climbed into one of 160 Ford convertibles, including the new Ford Mustang, and began a “journey to a prehistoric jungle and moved through scenes of dinosaur fights into the dawn of mankind and finally to a space city.” These electrically powered convertibles carried riders around the magic skyway, illustrating the past to the present. In a stroke of marketing genius, Ford “chose the Fair to introduce its latest model, the Ford Mustang, which would later become one of the best-selling automobiles in American history.” The unprecedented audio-animatronic technology provided an experience never seen before. A 3,000-pound T-Rex was part of the ride, the
The largest audio-animatronic figure created. The ride was so life-like, it was even frightening to some:

"Were you frightened by those big dinosaurs on the ride?" A little boy was asked. He shook his head to indicate "no." "I wasn't either," a second boy said proudly. "Well I was," an adult standing nearby said. "That's because you're a grown-up," said the first little boy.

The Ford attraction was under development longer than the other rides WED created for the World's Fair. This was due to the problem of moving the vehicles through the attraction. Legendary Imagineer Bob Gurr, along with other Disney Imagineers, utilized the booster brake design, also used in the Matterhorn ride at Disneyland, which allowed multiple cars to be on the track at the same time, but also provided an immersive experience of a ride-through attraction. This combined technology developed for the World's Fair was perfected for installation in the popular ride Haunted Mansion, opened in 1969 at Disneyland. The details of the Magic Skyway were intended to remain a secret until the April 22, 1964 opening, and all that was revealed was that visitors would travel through time in a Ford convertible. This attraction anticipated nearly 60,000 – 70,000 visitors per day and became a popular attraction, and marketing marvel, created by Disney and endorsed by Ford. Magic Skyway was the fourth most attended pavilion at the Fair, with over 14.9 million guests, and accommodating nearly 4,000 guests per hour.

The second attraction that was built for the Fair was created by the partnership of WED and General Electric. By the end of 1960, "WED had secured a contract with GE worth $50,000 for research alone; more money would be provided to design and actually build the pavilion." This was the type of contract Walt was seeking because it provided funding for his Imagineers to experiment with the new audio-animatronic robotic
technology. The attraction designed for the General Electric Corporation became known as the *Carousel of Progress*, which included a rotating theater featuring a large amount of audio-animatronic characters depicting specific time periods throughout history. The *Carousel of Progress* was described as a “miracle of engineering” as it moved four sets of audiences throughout a single revolving theater. GE even “allocated an additional twenty million dollars in advertising and promotion to tie in with the *Carousel of Progress*” in order to entice visitors to the pavilion. General Electric used this attraction to draw visitors, as well as provide advertising for the company, which was a successful tactic. Additionally, the Disney team of Richard and Robert Sherman, and composer Buddy Baker, wrote the song “There’s A Great Big Beautiful Tomorrow” for use as the attraction’s theme song. The Sherman brothers had written other songs before for the Disney Company, such as the score and songs for *Mary Poppins*.

Walt Disney’s vision for the *Carousel of Progress* began with a nostalgic retelling of events from his own lifetime. As the idea progressed, the *Carousel* design would be to showcase the “role electricity has played in bettering man’s living conditions, and dramatize where man’s work with electrical power may go from here,” as described by GE’s manager of Corporate Communications. Walt had a personal connection to this attraction, more than any of the other attractions at the Fair, partly due to the level of audio-animatronics technology involved. Marty Skyler, former president of Walt Disney
Imageering remembers, “[Walt] was really excited with what was happening with audio­animatronics [technology]. It enabled him to do things that he had never done before.”

This attraction featured four different scenes throughout history. Each scene was presented in a separate, but connected, theater and depicted a different historical time period in which a “three-minute presentation of ‘electro-mechanical’ performers would showcase the evolution of electricity.”

The first scene transported the audience back to 1880, where “family members—mother, father, son, daughter, grandma, grandpa, dog, parrot, and good ol’ Cousin Orville—pump their water from a well and have no electricity.” The round theater then rotated to the second scene, in 1920, when electricity was present in every American home, with light bulbs, a refrigerator, mixer, and even a radio set. The third scene was set in the 1940s and includes the modern technological marvels of that time period, such as an automatic dishwasher, a television, and even an automatic paint mixer. The final scene, in 1964, showed the entire family home with new electronic devices such as an oven, updated dishwasher and refrigerator, and even a color television. Walt had a specific vision for the creation of this attraction and was even known for acting out the scenes he had envisioned. He specifically requested re-writes until it reflected what he had created in his mind. One re-write was given to Walt with the anticipation that it was perfect, however Walt stated, “It doesn't have a weenie!”

None of the Imagineers understood what he meant until he displayed his addition to the
attraction: a dog. A weenie was described as a visual magnet, and the simple addition of a dog to each scene provided a common thread to the entire production. This dog was so popular and realistic that seven-year-old Caroline Kennedy, daughter of the late President John F. Kennedy, pleaded with her mother to take him home with them. The Carousel of Progress was the third most attended pavilion at the fair, with over 15.6 million guests, and accommodated 3,500 guests per hour. It was “a hit with fairgoers, thanks in no small part to the Sherman brothers’ memorable tune and composer Buddy Baker’s fantastic arrangements.”

The third attraction that Walt Disney and WED Enterprises were involved in creating was the animatronic President Abraham Lincoln for the Illinois pavilion, entitled Great Moments with Mr. Lincoln. Originally, Walt Disney wanted to complete an entire Hall of Presidents, but there was not enough time to create all of the animatronics for the Fair. Walt believed:

There was some undeveloped means of communication... perhaps some new art form... that could combine the best of traditional media to capture the real countenance, the warm sincerity, and the contagious dedication of Abraham Lincoln. That art form was audio animatronics technology, and Mr. Lincoln proved to be an early masterpiece of the groundbreaking Disney-created technology.

Imagineers had been working on the technology for a Hall of Presidents since 1958, but no animatronic figures had yet been created. In April 1962, Walt hosted Robert Moses at Disneyland while he was reviewing progress of the attractions planned for the Fair. While there, “[Disney] asked Moses if he would like to meet Abraham Lincoln... He
quickly ushered Moses into a secret room in his studio’s Animation Building, and there a
[prototype] robotic President Lincoln offered his hand in friendship,” which convinced
Moses he was not able to open the Fair without the animatronic Lincoln. 83

Moses wanted the attraction featured in the United States Federal Pavilion, but the
architect of the pavilion, Charles Luckman, rejected the idea. 84 Next, Moses tried
convincing Disney that “WED should construct its own pavilion for the exhibit, but
Disney didn’t want to foot the bill” for building the pavilion. 85 Moses was then able to
negotiate a contract with the state of Illinois to sponsor the representation of Abraham
Lincoln, but not without concessions. Walt originally wanted $600,000 just for the
figure, with more money required for construction of the pavilion, so the idea was
promptly rejected by Illinois. 86 Moses, however, made “concessions on various fees for
the pavilion and secretly paid the legislature [of Illinois] a $250,000 subsidy.” 87 This
convinced the state of Illinois to work with Disney and WED Enterprises to bring the
audio-animatronic President Abraham Lincoln to life at the 1964-65 World’s Fair.

The animatronic President Abraham Lincoln was one of the most complicated
products of the new audio-animatronic technology. For Lincoln to come to life, the
figure was made capable of “48 separate body actions, as well as 17 head motions and
facial- expressions, all performed with lifelike movements and mannerisms.” 88 This
totaled nearly “275,000 possible combinations of actions” that the audio-animatronic
figure was able to perform. 89

Although the original Lincoln had been developed years prior to the Fair, the
technology had not allowed for the production of the character. WED technicians spent a
total of more than “five months in research alone to assure an exact likeness and accurate
measurements” of what historians agreed was Lincoln’s likeness, height, and weight for the 22 minute show. This was an unprecedented use of audio-animatronics, which produced a character so real that some were stunned by the movements. Mr. Lincoln was so life-like that when “it stood to speak, one shocked five-year-old shouted, ‘But Daddy, I thought you said he was dead!” This attraction accommodated around 2,500 guests per hour and was the second-most attended state pavilion at the Fair, with 7,000,000 guests. Great Moments with Mr. Lincoln was a cutting edge attraction, which ushered in advanced audio-animatronic technology.

The fourth and final attraction the Disney Company supplied to the Fair was one created in conjunction with Pepsi-Cola and UNICEF, and was the only one of the Disney attractions to charge an entrance fee. This attraction became known as it’s a small world, which featured audio-animatronic children represented from cultures all over the world. WED agreed to complete this attraction less than one year before the opening of the Fair, barely enough time to develop and build a complete attraction. However, the last minute addition to the Fair became one of the most charming. Unlike the other pavilions Disney was working on for the Fair, top executives from Pepsi-Cola approached Disney to complete this exhibit. Disney was having a profound influence on the design of the Fair.

it’s a small world was an audio-animatronics system of “hundreds of figures of children, dolls, and toys representing nations throughout the world.” Fairgoers sailed through the attraction in one of 53 boats, listening to “pintsize singing puppets of different races and ethnicities, representing the children of the world.” The success of the ride was dependent upon the ability to create a song that worked throughout all areas
of the attraction. Originally, Walt envisioned the characters “simultaneously singing their various national anthems, but that didn't work out.”\textsuperscript{96} Walt gave the music assignment again to the Sherman brothers.\textsuperscript{97} Their task was to create a catchy song that had the potential to be translated into multiple languages. The Sherman brothers were especially successful with the tune “it’s a small world,” and today it is one of the most recognizable tunes around the world.\textsuperscript{98}

The \textit{it’s a small world} ride became the top paid attraction to the Fair with over 10,000,000 guests attending, averaging 5,000 guests per hour.\textsuperscript{99} It was even estimated that the profit for this pavilion accounted for 20\% of total paid admissions at the Fair.\textsuperscript{100} This ride was placed into a category of popularity that rivaled the attractions that did not charge an entrance fee. For guests to ride the boat attraction, they were charged \$ .95 for adults and \$ .60 for children.\textsuperscript{101} Regardless of the cost, guests continuously chose to ride through the mechanized world. Two sisters, Barbara Berntsen of New York and Leigh Radtke of San Francisco, traveled to the World’s Fair a total of 13 times with their mother.\textsuperscript{102} Every time they went to the Fair, they visited the \textit{it’s a small world} ride, as it was their mother’s favorite.\textsuperscript{103} They remember being “impressed with all of the mannequins and how they moved... [and] how realistic the characters looked.”\textsuperscript{104} The audio-animatronic technology was innovative in its time and provided amazement for all attraction guests.

Although four pavilions was a huge undertaking for WED Enterprises, Disney made it his personal mission to complete all of the attractions to perfection. Even though
his pavilions were the most popular at the Fair, some disliked the use of the audio-animatronic technology. One critic, Vincent J. Scully, Jr., writing for *Life* magazine stated:

[The Ford Pavilion] is by Disney, who so vulgarizes everything he touches that fact lost all force, living things their stature, and the ‘history of the world’ its meaning. Disney caters to the kind of phony reality – most horribly exemplified by the moving and talking figure of Lincoln elsewhere in the Fair – that we all too readily accept in place of the true.\(^{105}\)

However, this was not the general opinion of visitors. The technology introduced at the Fair proved to delight, and it created a new standard for theme park attractions. Disney was able to astound all. The groundwork had been laid for Disneyland park enhancements, and proved there was interest in another park in the United States on the eastern coast.

**Closing the World’s Fair**

The 1964-65 World’s Fair closed on October 17, 1965 after a full 360 days of operation during its two seasons.\(^{106}\) An estimated 27,148,280 individuals visited the fair in its first season (April 22 – October 18, 1964), and another 24,458,757 attended the second season (April 21 – October 17, 1965).\(^{107}\) Since the Flushing Meadows location had already been designated a park at the conclusion of the Fair, nearly all pavilions were to be torn down. Since his pavilions were going to be torn down or relocated, Disney decided to make a remarkable offer to the companies he had worked with for the Fair. If the corporations “established their exhibits at Disneyland, the million-dollar fee [for use of the Disney name] could be applied to moving expenses” involved in transportation across the country.\(^{108}\) The original *it's a small world* and *Carousel of Progress* were transported to Disneyland. The *Carousel of Progress* resided there for six years before
being moved to the Magic Kingdom at the new Disney World Park in Florida.\textsuperscript{109} A copied version of \textit{Mr. Lincoln} was also moved to Disneyland Park.\textsuperscript{110} Ford decided against moving its \textit{Magic Skyway} attraction to Disneyland because the company was unable to afford putting all of their money into one specific marketing area with Disney.\textsuperscript{111} For this reason, the attraction was torn down; however, the dinosaurs from the ride are still visible today at Disneyland in an area designated as Primeval World.\textsuperscript{112} For all of Disney's work for the World's Fair, he was able to build and obtain new attractions for his park in California, and later for his new park in Florida.

Even though 51 million individuals attended the Fair in New York, it failed to turn a profit.\textsuperscript{113} The 1964-65 Fair lost money, the same as the 1939-40 Fair. Investors only earned “62.4 cents on the dollar, while New York City recovered only $1.5 million of its $24 million loan to the Fair Corporation.”\textsuperscript{114} However, this was the most popular Fair to date and provided a great economic stimulus to New York and the surrounding area. In addition, the Flushing Meadows-Corona Park, though not quite the park Robert Moses envisioned, did become a reality.

\textbf{Disneyland and Disney World}

With the success experienced at the Fair, Walt Disney decided there was enough interest on the East Coast to open a new Disney park. Disney decided he was not going to be limited by the amount of land he owned, as he had been with Disneyland in California, so he “secretly purchased 43 square miles, or 27,000 acres (an area
approximately twice the size of Manhattan) before announcing his intentions to build a resort near Orlando."\textsuperscript{115} The first park of Walt Disney World in Orlando, Florida, the Magic Kingdom, was opened in 1971, with EPCOT (1982), Disney MGM Studios (1989), and Animal Kingdom (1998) opening in the years that followed.\textsuperscript{116}

The World’s Fair of 1964 had a major short and long-term impact on both Disneyland and the future Disney World. Prior to the Fair, WED had only made minor breakthroughs in regard to audio-animatronic technology; it had only been simplisticly implemented with the Enchanted Tiki Room. With corporate sponsorships by Ford, General Electric, Pepsi-Cola and UNICEF, and the State of Illinois, Disney had the ability to explore the uses and limits of the technology. Walt and WED Enterprises saw an “explosion of creativity that would provide attractions, ideas, and advancements that rival any of his company’s previous creative streaks” in the years of design work for the Fair.\textsuperscript{117} The Disney Company was able to focus their talents on new ideas of technology for animating people and animals, with corporate companies paying the bill for trial and error.

The transportation system that had been developed and used in the Ford and Pepsi-Cola pavilions, the booster break system, contributed to the establishment of future rides at Disneyland. This system provided the breakthrough for four major attractions at Disneyland and at other Disney parks: Haunted Mansion, Adventure Thru Inner Space, the WEDway PeopleMover, and

Figure 10: *Haunted Mansion* at Disneyland, 2007
Photograph by the author
Pirates of the Caribbean.\textsuperscript{118} Pirates of the Caribbean is considered the “quintessential Disney theme park attraction,” and it also saw the most benefit from Disney’s participation at the World’s Fair.\textsuperscript{119} This ride had already been planned as a walk-through ride, and construction had even begun on the attraction; however, Walt Disney stated, “We’ve learned too much from the Fair about moving people with vehicles, we can’t leave this as a walk-through.”\textsuperscript{120} As a result, the entire foundation of the ride was demolished, and a new ride was designed.

In addition to the transportation system, the newly perfected audio-animatronic technology provided new dimensions to rides at the Disney parks. This key innovation created for the Fair provided the “dominant storytelling medium in Disney attractions for the next two decades.”\textsuperscript{121} The \textit{Haunted Mansion} and \textit{Pirates of the Caribbean} rides illustrate the application of the audio-animatronic technology being implemented after the Fair. Even today, there are attractions created using the same technology that was developed for the Fair in 1964. \textit{Peter Pan’s Flight} (1983), \textit{Alice in Wonderland} (1984), \textit{Splash Mountain} (1989), \textit{Indiana Jones Adventure} (1995), \textit{The Many Adventures of Winnie the Pooh} (2003), and even the recently opened \textit{Journey of the Little Mermaid} (2014) all utilize the audio-animatronic technology developed nearly fifty years ago.\textsuperscript{122} This technology has continued to be improved and perfected by Disney. In 2008, at the World Science...
Festival, Disney Imagineering debuted one of the first free-roving audio-animatronic figures, Lucky the Dinosaur. This was a "nine-foot tall, 450-pound, two-legged creature, [that] laughed, sneezed, and snorted," which also pulled a "flower-covered cart, which cleverly concealed a computer and power source." Without the creative ability and financial opportunity the World's Fair of 1964-65 provided Walt Disney and WED Enterprises, audio-animatronics may not have had the same impact upon the future of theme parks. Nearly all amusement parks today incorporate some form of this technology, and guests look forward to the delight it can generate.

The impact of the Fair continued to be realized in projects such as EPCOT (Experimental Prototype Community of Tomorrow). EPCOT Center was opened in 1982 at the Walt Disney World Park in Orlando, Florida. Through the first year of operations, Disney invested around two billion dollars in the development, construction, and upkeep of this new park. Americans were "forever curious about other countries and fanciful gadgets, two world's fair staples that fit in neatly with Disney's own interests," and this is the design used in the creation of EPCOT. This park was divided into two distinct sections: Future World and World Showcase, a parallel to a world's fair design.

Today, EPCOT is the "most tangible evidence of the Fair's legacy, for it aspires to be a permanent world's fair" for visitors. The focal point of Future World is Spaceship Earth, a giant globe, which is reminiscent of the Unisphere present at the 1964 World's Fair. Disney was "seeking to exploit the exotic aspects of different cultures, [but] the style of presentation and overall feel of EPCOT [is] designed to minimize unsettling differences, making the various lifestyles and nationalities more accessible and
A legacy of Walt Disney's participation in the 1964-65 Fair extends to multiple spheres of the modern theme park, including the transportation systems, technology of audio-animatronics, EPCOT Center, and the desire to entertain with science and innovation.

**Lasting Impact**

Walt Disney had an obvious impact on the World's Fair of 1964-65, as his rides produced the greatest number of visitors in the two seasons it was open. Disney's four pavilions at the Fair were tremendously popular, and visitors "queued up for hours to see Disney's 'audio-animatronics' system perfected. Now a staple of theme park wizardry, 'audio-animatronics' was then in its infancy and had its coming out party at the Fair." This technology now represents an "integral and crucial element in advanced theme parks and attractions." However, the Fair also had an impact on Walt Disney and the Disney Company. Audio-animatronics were integrated into a majority of Disney attractions, and became a model for other theme parks around the world. The World's Fair of 1964-65 provided an unprecedented opportunity to develop new technology at little or no cost to the Disney Company. This reciprocal relationship benefited both the Fair and the Disney Company, which continues to affect amusement parks today. Flushing Meadows never became the type of community park that Robert Moses envisioned, but Walt Disney achieved his goal of transforming the modern amusement park.
Notes


4 Ibid.


7 Ibid at 24.

8 Ibid at 26.

9 Ibid at 28-29.

10 Ibid at 56.

11 Ibid at 88.

12 Ibid at 73.

13 Ibid at 242.


15 Ibid.

16 Thomas, *Walt Disney*, 218.

17 Ibid at 219.

18 Ibid at 305-306.

19 Ibid at 247.


24 Ibid.
26 Ibid.
28 Ibid at 65.
29 Samuel, The End of Innocence, 38.
30 Thomas, Walt Disney, 308.
33 Tirella, Tomorrow-land, 33.
34 Caro, The Power Broker, 47.
35 Ibid.
36 Schmidt, Disney's Dream Weavers, 63.
37 Tirella, Tomorrow-land, 47.
39 Tirella, Tomorrow-land, 42.
40 Samuel, The End of Innocence, 110.
41 Alexander Rennie, "By the Numbers." Disney Twenty Three, 61.
43 Thomas, Walt Disney, 308.
44 Tirella, Tomorrow-land, 49.
45 Ibid.
46 Ibid.
48 "Walt Disney and the 1964 World's Fair" CD Set, (Burbank: Walt Disney Records, 2009).
49 Thomas, *Walt Disney*, 308.


55 Rannie, "By the Numbers." *Disney Twenty Three*, 61.


59 Ibid.

60 Rannie, "By the Numbers." *Disney Twenty Three*, 61.


62 Individuals that combine knowledge of new techniques and technologies to create new ways of telling stories that could be experienced by large audiences. These individuals also have an extensive knowledge of the application and results of special effects, interactive technology, live entertainment, audio systems, and technical platforms. Gabrielle Kuiper, Bert Smit, *Imagineering: Innovation in the Experience Economy* (Boston, MA: CPI Group), 7.


64 Ibid at 118.


66 Ibid.


68 Ibid at 30.

69 Ibid at 30.

70 Ibid at 29.


72 Ibid.

73 Ibid.
74 Ibid.
76 Ibid.
77 Marty Sklar, "Our Man in New York." Disney Twenty Three, 40.
78 Tirella, Tomorrow-land, 207.
79 Rannie, "By the Numbers." Disney Twenty Three, 61.
80 Rannie, "The Fair's Musical Fare." Disney Twenty Three, 33.
81 Anderson, "The Illusion of Life." Disney Twenty Three, 23.
82 Ibid.
83 Tirella, Tomorrow-land, 55.
84 Ibid.
85 Ibid.
86 Ibid at 56.
87 Ibid at 56.
89 Ibid.
90 Ibid.
91 Tirella, Tomorrow-land, 201.
92 Rannie, "By the Numbers." Disney Twenty Three, 61.
93 Thomas, Walt Disney: An American Original, 313.
95 Rannie, "By the Numbers." Disney Twenty Three, 61. See also Tirella, Tomorrow-land, 57.
96 Tirella, Tomorrow-land, 57.
97 Thomas, Walt Disney, 309.
99 Rannie, "By the Numbers." Disney Twenty Three, 61.
103 Ibid.
104 Ibid.
107 Samuel, The End of Innocence, 83.
108 Thomas, Walt Disney, 313.
110 Ibid.
111 Thomas, Walt Disney, 313.
112 Schmidt, Disney's Dream Weavers, 83.
113 Samuel, The End of Innocence, 9.
114 Tirella, Tomorrow-land, 323.
116 Ibid.
118 Ibid at 19.
119 Ibid.
120 Ibid.
121 Ibid.
123 Schmidt, Disney's Dream Weavers, 62.
124 Ibid.
125 Berntsen and Radtke. Personal interview by the author.
126 Sheppard, "Icons and Images: The Cultural Legacy of the Fair." Remembering the Future, 177.
128 Ibid at 127.
129 Sheppard, "Icons and Images: The Cultural Legacy of the Fair." Remembering the Future, 177.

Images


Figure 2: Unisphere in Flushing Meadows-Corona Park, 2012. Photograph by the author


Figure 5: Inside the Carousel of Progress. Photograph by The Walt Disney Company.


Figure 10: Haunted Mansion at Disneyland, 2007. Photograph by the author.