Enhancing Visitor Experience of Theme Park Attractions: Focusing on Animation and Narrative

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Abstract—As the sophistication of consumers grows, the theme park industry is preparing to become more interactive with state-of-the-art technology and immersive storytelling. Visitors expect an outstanding experience in theme parks, and this can be delivered by attractions that have a strong media-driven narrative content. In this study, we analyzed theme park attractions that employ interactive animated narratives and which demonstrate the immersion and emotional connection that can be experienced by visitors. For the analysis, we used the actantial model and the semiotic square, both developed by A.J. Greimas. Through this we found that the animation characters took key roles that led the narrative in the attraction. Moreover, both the animation's content and attraction maximize fantasy and verisimilitude by making use of precise technologies to create a highly-regarded experience for visitors.

Keywords—Theme parks, attractions, animation, narrative, interactivity, semiotics

I. INTRODUCTION

EVER since its grand opening in the 1950s, Disneyland has been ranked as the theme park with the highest number of visitors in the world. The rapid growth of the global middle class allowed families to spend quality time together, and many theme park operators strategically spread their parks worldwide to attract more visitors using a strong thematic experience. Theme parks have become a new leisure space and the latest trend in entertainment around the world [2].

In Asia, many new parks have been built to accommodate visitors' needs in accordance with this increasing trend. These new entertainment spots have attracted many customers, yet despite the booming industry, there appears to be no clear understanding about the difference between theme parks and amusement parks. A number of Asian parks claim the designation 'theme park', yet display no substantial or coherent themes. Dai Bin, president of the China Tourism Academy, stated that no attractive theme or story links any elements together within these Chinese 'theme' parks. He emphasized that there should be living characters or interactive elements for the visitors, who come to pursue deeper values

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and feelings [27].

The Korean theme park industry has faced similar problems. Although Korea has two major theme parks, Lotte World and Everland, which hold a successful record for stable visitation from local and international visitors over the last ten years [26], there are no strong themes to create coherent attractions within the parks. Most attractions at Korean theme parks are simple rides and games without any narrative [28] or emotional attachment for the guests. This lack of storytelling has been the biggest issue for the Chinese and Korean local theme park industries. The narrative is the missing factor that can generate nostalgia and bring back memories for visitors [8], greatly enhancing guests' experiences at a theme park.

For the successful theme park, it is necessary to examine the type of narrative that popular theme parks use and understand its importance. This paper uses A. J. Greimas' actantial model and semiotic squares to analyze the successful theme park attraction, and examines how the narrative structure of animation has been applied to theme park attractions in order to form emotional connections with their visitors.

II. LITERATURE REVIEW

A. Distinguishable Concepts and Characteristics of Theme Park Attractions

What are the most distinguishable and outstanding characteristics that separate theme park attractions from amusement parks? It appears that many theme park operators, especially in asia, misunderstand the definition of a theme park. "Theming implies creating special atmospheres and causing specific emotional responses from the consumers" [5]. Sophisticated visitors who have been exposed to other local or global theme parks now expect an exceptional experience in return due to growing consumer purchasing power [3]. However, many parks merely constitute a combination of incoherent roller coasters, rides, and shows without providing a thematic experience to the visitors. Theme parks must demonstrate clear factors that differentiate them from amusement parks in order to satisfy their customers.

Attractions are artificially built to attract theme park visitors. They act as viewing facilities where guests can enjoy visual motion pictures with special effects or even participate in activities themselves [8]. However, they are also required to

have a strong unifying basis, which "gives a park its character" by "physically symbolic structuring around a theme" [7]. "The theme must refer to a story, an argument, which the visitor will assimilate during his/her visit in a progressive process of identification. The physical, landscape and aesthetic characteristics of the surroundings provide the forms" [5]. Clave [5] writes that theme is providing the crucial basis of the form and content of a park and the most relevant part of the visitor's experience. Thus, media content can be provided of the most important attributes when it comes to designing and building attractions. The narrativity of media and strong association with theme acts as a core value of theme parks, generating escapism and a unified concept to maximize visitor experience in the park.

B. Narrative in theme park attractions

In general, theme park attractions provide a linear narrative experience to the visitors, and visitors enjoy media content in the park's rides or shows as information receivers. Famous global theme park operators employ the narrative of commercial films to provide a thematic experience to the guests. According to Botterill [13], Disney's chief contribution to the leisure industry came through theme parks by transforming the cinema through the format of the country fair: "[by] circulating stories first through cinema and television then onto the park, Disney revitalized the fair for modern audiences. This process sparked to create the synergy between media forms". Disneyland was initially designed by animators, who "created a series of scenes along which people had to move in a system of well-controlled flow" [5]. It is "a movie that could be walked into" [14], where the park attractions are not mere buildings but were designed to be an experience. Hine [14] writes that this experience involves "a sequence of establishing shots, medium shots, and close-ups", with attractions as state-of-the-art technology so that the riders, or audience, can feel what the designer has intended, precisely the way a movie camera sees. The attractions at Disney provide "a comforting and teleological paradigm for the physical experience" by adopting the narrative of the films [14].

Encouraging repeat visits by park guests is one of the core values for a theme park's business model [15], but this can occur only when parks provide a strong, coherent thematic experience for their visitors. Swartznan [16] stated that theming relates to the "story, spectacle, and technology [regarding] the creation of an atmosphere of entertainment that fosters a fantasy, location or idea." In order to provide a greater level of fantasy and immersion to guests, not only should parks improve their physical environment and rides, but they should also utilize high technology in order to provide even more interactive narratives.

As technology advances, theme park attractions are able to present a more interactive narrative experience than ever before. Attractions continue to evolve with the use of high technology and offer a strong sense of immersion and emotional connection. Visitors can become actively involved

in the attraction by experiencing real-time conversation with animated characters or through modern rides that allow guests to interact physically, such as shooting infrared guns at targets [9]. Murray, cited in Bogoist [10], writes that interactivity creates environments that must be meaningfully responsive to user input. Most heavily-themed attractions attempt to center the guest as the key player and character in the attraction's plot [9]. Interactivity turns visitors into active participants who take on major roles, even more so than the story's original characters.

The animation is a powerful media form that can provide fantasy, immersion, and verisimilitude [12]. Altogether, these strengthen the original purpose of theme parks: escapism, imagination, and nostalgia, which are brought together with a strong theme. One specific characteristic of animation is that it does not involve filming a subject before a camera, but rather creating something realistic from nothing. Eco [17] writes that "perfect reality" is recreated as a "perfect imitation," and this "perfect imitation" is provided as the original to visitors at Disneyland. This view aligns with the definition of animation [18], which mimics real life in order to create something realistic. Thanks to the nature of animation, visitors can have an enhanced experience of "the perfect reality with the perfect imitation" at a theme park [17]. Together with the positive characteristics of animation, this interactivity enhances the visitor experience to a new level.

C. The Actantial Model and Semiotic Square by A. J. Greimas

The actantial model and semiotic square, used to present the function of characters' roles in the narrative [19], have been utilized in this case study for two reasons. First, the actantial model is abstract and flexible enough that any components, including character, situation, environment, and emotion, can be actants in a scenario [25]. Second, this model can systemize many different relationships within a narrative.

Greimas developed his schema of narrative theory from Vladimir Propp's Morphology of Russian Folktale. He assessed Propp's arguments through three tests consisting of folktales and derived a narrative structure using the actantial model. He introduced six charact3pters (actants) as a narrative function and suggested the model below:
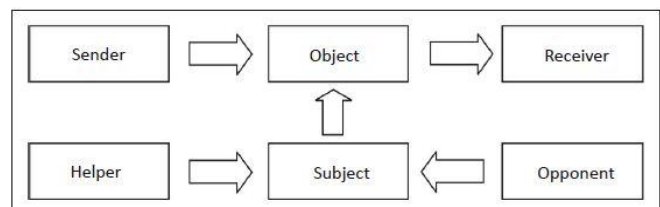

Fig. 1: Actantial model represented as a square

This actantial model accounts for a more advanced character analysis than appears in Propp's Morphology of Russian Folktale because it can apply to character studies in any literature, folktale or mythical text. Greimas generalized the study of any characters using this actantial model [19]. It is

a tool that can theoretically be used to analyze any action, but particularly those depicted in literary texts or images [20]. Every actant is then projected on the semiotic square and segmented into 4 actantial models: Actant, Contrary, Contradictory, and Implication [8]. The focus lies on the relationships of characters, functions, and roles, making it useful for explaining and analyzing character-led narratives.

The six actants, as shown in Fig. 1 above, are divided into three oppositions, each of which forms an axis of the actantial description [20]:

1) The Axis of Desire: Subject and Object. The Subject is what wants to get the Object.

2) The Axis of Power: Helper and Opponent. The Helper assists in achieving the goal (desired junction) between the Subject and Object; the Opponent hinders the Subject's goal.

3) The Axis of Transmission (called the Axis of Knowledge by Greimas): Sender and Receiver. The Sender is the element requesting to achieve the target between Subject and Object. The Receiver is the element which undertaken the quest. Often, Sender elements can be Receiver elements as well; e.g., a king asks a knight to rescue his daughter. In this example, the king becomes Sender and Receiver at the same time, while the knight is the Subject and the princess is the Object.

The semiotic square is formed by creating binary relationships between contrary signs. First, S1 is considered to an assertion/positive element, while S2 is the negation/negative element in a binary pair, as shown:

$$S_1 \longleftrightarrow S_2$$

Greimas then added two additional contradictory signs that derive from the first binary relationship

$$\bar{S}_1 \longleftrightarrow \bar{S}_2$$

Greimas' binary opposition is a modification and advancement of the work of Claude Lèvi-Strauss [21], whose binary opposition theory was used to analyze opposing main characters. These binary opposites introduced the contrast between protagonist and antagonist, such as in superhero films. Greimas added the contradictory and implication models to thicken the narrative with multiple oppositions, supplementing his actantial model. This semiotic square expanded the concept of binary opposition to visually explain characters' desires, such as relationships with minor characters. The semiotic square works well with today's narratives, which may have no clear binary opposites in the storyline and multiple binary opposites between characters.

The S as a whole signifier interprets structural relationships by imposing conjunction and disjunction of the two binaries above. The strength of the semiotic square makes it easy to comprehend the relationships between characters, especially the pairing of the contrary, contradictory and implication relationships (see Fig. 2) [8].
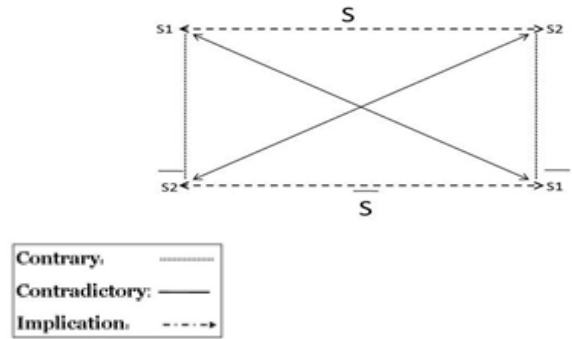

Fig. 2: Greimas' Basic Semiotic Square

Given the basic premise that animation content and theme park attractions can provide park guests with enhanced visitor experience through a narrative and conceptual framework, Greimas' actantial model and semiotic squares will be applied to analyze existing theme park attractions to create a case study.

III. TURTLE TALK WITH CRUSH

A few studies have been conducted in this research including some attractions at global theme parks, Disneyland and Universal Studios. All of the successful theme park attractions constitute powerful narrative and found that Disney owns the most intellectual properties in animation, including "Finding Nemo" created by Pixar. "Finding Nemo" has a strong story, a clear narrative structure with many different plots, and rich relationships between its main and sub-characters. "Turtle Talk with Crush" is an interactive show that uses one of the sub-characters, Crush, from the original film. In "Finding Nemo," Crush plays an important role by allowing Marlin to come to realizations about Nemo, family and psychological growth. Crush has a particular way of using 'turtle language' and has a relaxed, laid-back attitude [24]. This attraction at Disneyland was produced on the assumption that visitors have already watched the film before coming to the show. Visitors are aware of Crush and his personality, and could easily hold a fantasy dialogue session with Crush before the visit. In the attraction, Crush uses the same style of speech from the film when speaking to the visitors. He leads a conversation and teaches guests the importance of conserving the ocean. He speaks through a large window called "Window to the Pacific" [23]; while in reality, it is a large rear-projection screen, it appears as if his world is right there behind the glass. The whale and Dory appear in supporting roles.

The narrative structure of animation content constitutes the characters' actions. The characters are the virtual protagonists who live in the virtual fantasy world, and conversation with these animated characters creates a surreal experience. This surreal phenomenon thus becomes an example of fantasy [22], and animation is the medium that allows visitors to maximize this fantasy. In "Turtle Talk with Crush," the audience has an opportunity to experience a real-time conversation with an

animated sea turtle character. Visitors can forget that Crush is a virtual fictional character and experience verisimilitude together, enjoying this fantasy in a high level of visitor engagement through this interaction with virtual characters.

This study uses Greimas semiotic theory to dissect, and analyze the "Turtle Talk with Crush" as an example and demonstrate the importance of the narrative in theme park attractions.

A. The Actantial Model of "Turtle Talk with Crush."

"Turtle Talk with Crush" has no Opponent, as the improvised conversation and interactivity with visitors comprise the main purpose. The visitors, or audience, become the active Subject in order to obtain a dialogue with Crush, which acts as the Object. They also receive help along the way from the Sender and Supporters.

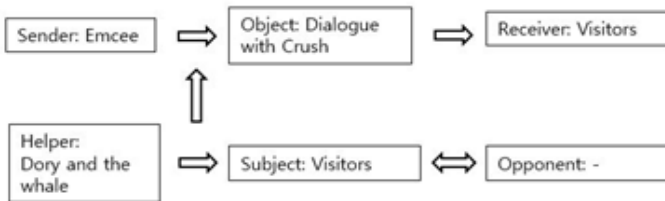The following is an actantial model of the selected attraction:

Fig. 4: Actantial model of "Turtle Talk with Crush."

1) Subject and Object: The main purpose, or Object, of this attraction, is to have a dialogue session with Crush. The visitors, or audience, become the active Subject by conversing with Crush and also act as the Receiver by obtaining the Object and thus achieving the main purpose. This process allows the visitors to fall into a surreal experience.
2) Sender and Receiver: The emcee who calls Crush out to talk to the visitors is the Sender, who explains about Crush and the attraction (Object) for the better understanding of the visitors (Subject). The emcee carries another important role: connecting the worlds between Crush and the visitors. The Receiver represents the visitors who obtain the dialogue session with Crush, already identified as the Object.
3) Supporter and Opponent: The main Supporter in the attraction is Dory, one of the main characters from original film "Finding Nemo." Dory plays a comedic role in order to enhance the entertaining experience for the visitors. A whale shows up in an additional Supporter role, adding more fun. The Opponent does not exist in "Turtle Talk with Crush," as the attraction focuses on easy and relaxing conversation rather than dramatic narrative structure

The table below summarizes the roles of the various actants in "Turtle Talk with Crush":

TABLE 1:
THE ROLES OF ACTANTS IN "TURTLE TALK WITH CRUSH."

Actants	Roles
Visitors (Audience)	The Subject who obtains the Object / The Receiver who seeks the Object
Dory, Whale	The Supporters, who provide help or amusement to the Subject in the process of securing the Object
Emcee	The Sender

According to Table 1 above, the visitors become active and critical participants in the attraction, unlike in traditional theme park attractions. Existing attractions often form passive connections with visitors through one-sided storytelling, while "Turtle Talk with Crush" engages the audience and allows them to become active Subjects who accomplish the goal of obtaining the Object. Here, visitors play a meaningful role while simultaneously strengthening the verisimilitude and fantasy of the attraction

B. Analysis of "Turtle Talk with Crush" using semiotic squares

The binary opposition in "Turtle Talk with Crush" modified by the researcher differs from the general model. This relationship does not indicate the contrary, but rather the different worlds where Crush and audience live.

Fig. 5: The binary opposition between Crush's world and the visitors' world

The world where Crush lives is the deep sea and the special microphone in the attraction enables conversation between humanity and sea animals. In this setting, the audience can believe that the animated world is the deep sea where Crush is from. In this example, contradictory and contrary were used to explain different worlds of crush's and visitors' and implication(complimentary) relationship is more emphasized. The binary opposition structure of the characters' relationships can be developed in the semiotic square below:
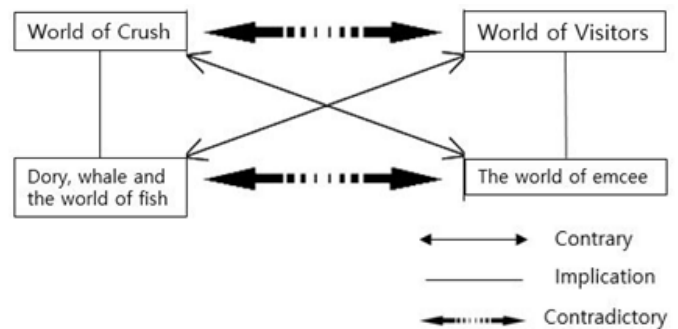

Fig. 6: The meaning of characters' relationships using a semiotic square

"Turtle Talk with Crush" involves its visitors in interactive storytelling with animated characters to provide extraordinary wonder. Visitors to the attraction experience a real-time conversation with an animated character, a fantasy in which they believe that they can talk with Crush through a microphone. This talk with Crush is similar to the conversation between Marlin and Crush in the original film. Visitors who have already watched "Finding Nemo" can immerse themselves in the fantasy and verisimilitude provided by "Turtle Talk with Crush." This analysis demonstrates the importance of narrative in theme park attractions by utilizing Greimas' model.

IV. CONCLUSION

Clotier [4] defines a theme park as "a closed whose purpose is to succeed in the encounter between the dreamy atmosphere it creates and the visitors' desire for dépaysement" [11]. In order to achieve successful dépaysement, this study suggests that new and existing theme parks should adopt an element of interactivity through animation and narrative to create stronger emotional attachment and immersion. This study used A. J. Greimas' semiotic theory in an attempt to understand how combining narrative and animation can affect the structure of theme park attractions and raise the number of repeat visitors to the park. Using semiotic analysis, this case study illustrated that successful animation content and theme park attractions share common characteristics: narrative and interactivity, which together can enhance and strengthen the visitor experience. Animation's surreal nature, its fantasy and verisimilitude can help amplify the narrative structure of theme park attractions and improve visitors' experiences at the parks. This case study focused on the interactive narrative function of theme park attractions. Visitors remember attractions with an engaging narrative more than they do simple roller coasters. Interactive narrative attractions allow theme park customers to have a more imaginative and immersive experience within a unified thematic environment [15]. These experiences provide the main factors for why visitors choose to revisit the theme park.

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